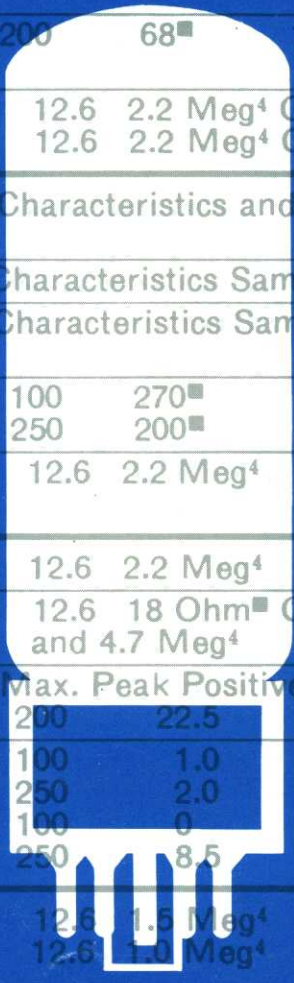


| EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trade Name |
|--|-------------|-------------------------|--------------------------------|---|----------------------|--------------|-------------------|--------------------|-------------------|------------|
| Volts | Amps. | | | | | | | | | |
| 12.6 | 0.550 | Det. Power Amp. Driver | ..... | 12.6 | G2 = 2 | G1 = 12.6 | 8 | 75 | 480 | 1 |
| (Space-Charge Grid Operation.) | | | | | | | | | | |
| 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics Same as Type 6DM4. (12DM4 Designed for | | | | | | |
| 12.6* | 0.450 | Power Amp. | 6.0 | 110 | 7.5 | 110 | 49.0 | 4.0 | 14000 | |
| 6.3 | 0.260 | A-F Amp. | 1.1 | Low Noise and Low Microphonism Version of Type 12AX7. | | | | | | |
| 12.6 | 0.130 | | | | | | | | | |
| 12.6* | 0.600 | T.V. Damper | 6.0 | Characteristics Same as Type 6DQ4. (12DQ4 Designed for | | | | | | |
| 12.6* | 0.600 | Horiz. Defl. Amplifier | 16.5 | Characteristics Same as Type 6DQ6A. (12DQ6A Designed for | | | | | | |
| 12.6* | 0.600 | Horiz. Defl. Amplifier | 17 | Characteristics Same as Type 6DQ6B. (12DQ6B Designed for | | | | | | |
| 12.6/6.3* | 0.300/0.600 | Video Amp. | 6.5 | 200 | 68 [■] | 125 | 26 | 5.6 | 53000 | 10 |
| 12.6 | 0.400 | Det. Power Driver | ..... | 12.6 | 2.2 Meg ⁴ | G1 = 12.6 | 35-15† | 80 | ..... |  |
| | | | | 12.6 | 2.2 Meg ⁴ | G1 = 12.6 | 35-11† | 80 | ..... |  |
| 12.6* | 0.600 | Vert. Defl. Amplifier | 9.0 | Characteristics and Ratings Same as Type 6DT5. (12DT5 D | | | | | | |
| 12.6 | 0.150 | Quad FM Det. | 1.7 | Characteristics Same as Type 6DT6. | | | | | | |
| 6.3 | 0.300 | A-F Amp. | 1.1 | Characteristics Same as Type 12AX7. Controlled for Hum an | | | | | | |
| 12.6 | 0.150 | | | | | | | | | |
| 12.6 | 0.150 | A-F Amp. | 2.75 | 100 | 270 [■] | | 3.7 | ..... | 15000 | 4 |
| | | | | 250 | 200 [■] | | 10 | ..... | 10900 | 5 |
| 12.6 | 0.250 | Det. Power Amp. Driver | ..... | 12.6 | 2.2 Meg ⁴ | 12.6 | 12 | 1.5 | 6000 | 6 |
| 12.6 | 0.150 | Det. Amp. | ..... | 12.6 | 2.2 Meg ⁴ | ..... | 0.4 | ..... | 19000 | |
| 12.6 | 0.375 | Detector, Pwr. Amp. Dr. | ..... | 12.6 | 18 Ohm [■] | G1 = 12.6 | 6.8 | 54 | 900 | |
| and 4.7 Meg ⁴ (Space Charge Grid Operatio | | | | | | | | | | |
| 12.6* | 0.600 | Vert. Defl. Amplifier | 11 | Max. Peak Positive Plate Voltage = 2200 Volts. Max. D.C. | | | | | | |
| | | | | 200 | 22.5 | 150 | 55 | 2.0 | 15000 | |
| 6.3 | 0.300 | Sect. 1 A-F | 1.2 | 100 | 1.0 | ..... | 0.5 | ..... | 80000 | |
| 12.6 | 0.150 | Voltage Amp. | | 250 | 2.0 | ..... | 1.2 | ..... | 62500 | |
| | | Sect. 2 A-F | 3.3 | 100 | 0 | ..... | 11.8 | ..... | 6500 | |
| | | Phase Inverter | | 250 | 8.5 | ..... | 10.5 | ..... | 7700 | |
| 12.6 | 0.450 | Dissimilar Tri's | 0.5 | 12.6 | 1.5 Meg ⁴ | ..... | 1.9 | ..... | 3520 | |
| | | Voltage Amp. | 0.5 | 12.6 | 1.0 Meg ⁴ | ..... | 7.5 | ..... | 970 | |
| | | Pwr. Amp. Dr. | | | | | | | | |

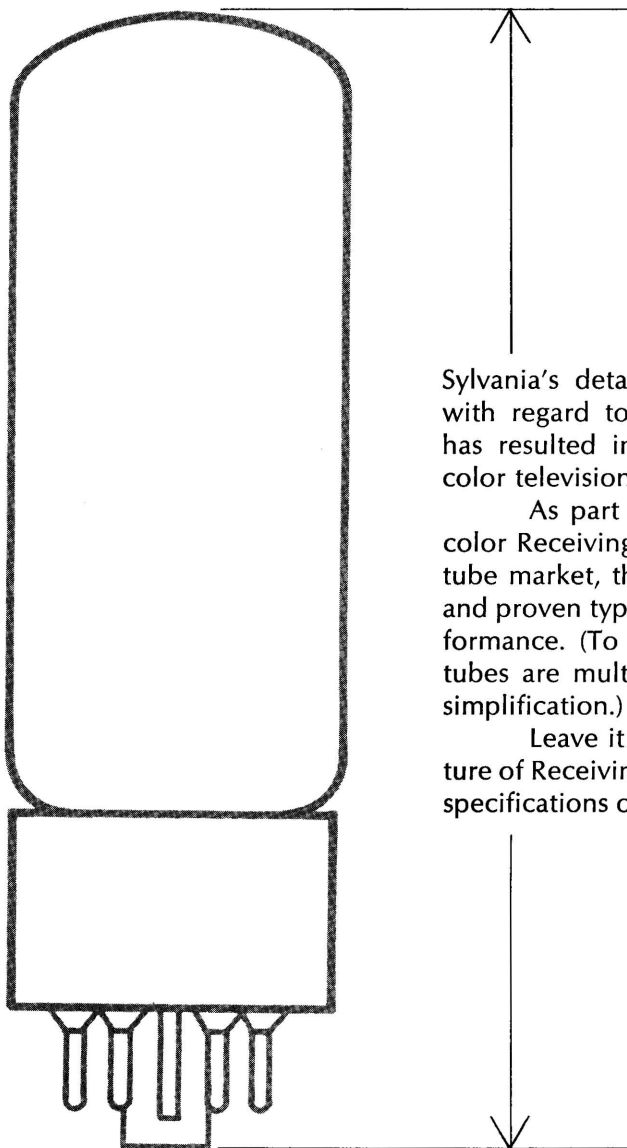


Characteristics of Sylvania Receiving Tubes

| | | | | | | | | | | |
|--------|-------|---------------------------------|-------|--|--------------------------|-------|------|-------|--------|--|
| 12 | 0.450 | A-F Voltage Amp. and Power Amp. | .825 | Characteristics Same as Type 6DZ8. (12DZ8 Designed for S | | | | | | |
| | | | 7.15 | | | | | | | |
| 12.6 | 0.190 | I-F Amp. | ..... | 12.6 | G1 = 10 Meg ⁴ | 12.6 | 3.2 | 1.4 | 32000 | |
| G3 = 0 | | | | | | | | | | |
| 12.6 | 0.225 | FM Osc. FM Amp. | ..... | 12.6 | 0 | ..... | 2.4 | ..... | 6000 | |
| | | | | 12.6 | 0 | 12.6 | 0.66 | 0.28 | 750000 | |
| 12.6 | 0.450 | S.T. A1 Amp. | 6.25 | 110 | 4.0 | 110 | 32 | 4 | 14000 | |
| | | | | 125 | 4.5 | 125 | 37 | 7 | 14000 | |

25¢

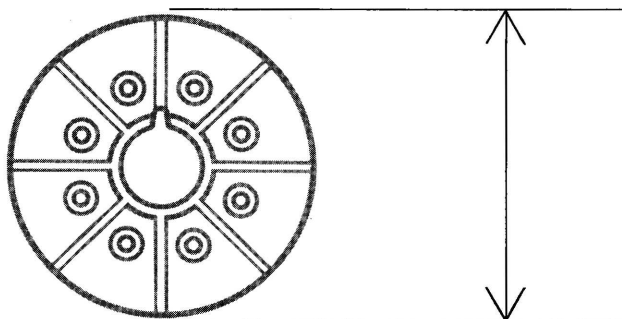
Tubes for Color Television



Sylvania's detailed study of color TV circuit functions, with regard to the performance characteristics desired, has resulted in a superior line of Receiving Tubes for color television.

As part of Sylvania's broad program to provide a color Receiving Tube line specifically geared to the color tube market, the study and continued evaluation of new and proven types assure optimum initial and long-life performance. (To assure cost and space savings, many new tubes are multiple-section types which allow for circuit simplification.)

Leave it to Sylvania to be a leader in the manufacture of Receiving Tubes that meet the demanding, exacting specifications of color television!



SYLVANIA RECEIVING TUBE CHARACTERISTICS CHART

This booklet contains the very latest television and radio receiving tubes in addition to many industrial tubes. It is intended as a quick reference to pertinent characteristics and basing connections.

Resistance/capacitance coupled amplifier data and a listing of tube types by basing connections are also included. This valuable supplementary information is presented in the latter pages of the booklet.

Please note that all types listed may not be available from Sylvania. They are included for your reference in finding substitutes, etc. Consult our price list for types currently available. The data published here has been compiled from various sources and while believed to be accurate, no responsibility can be assumed in case of error.

The majority of the information presented in the chart is self-explanatory, requiring only a few footnotes for clarification. The *Bulb Size or Style* column and the *Emitter* column are the only columns requiring additional comment.

BULB SIZE OR STYLE COLUMN

T-1 to T-18—Numbers 1 to 18 indicate nominal bulb diameter in eighths of an inch.

T, ST, TT—T—Straight sided bulb, ST—dome topped tapered bulb, TT—large straight sided bulb with top and bottom curved.

Metal—Octal base, T-8 metal envelope.

Lock-in—Lock-in base, T-9 glass bulb.

9-T9—Conventional 9 pin miniature base with T-9 bulb.

M-N—Metal Cased Nuvistor.

Comp.—Compactron, 12 pin base with T-9 or T-12 bulb, exhaust tip located at bottom.

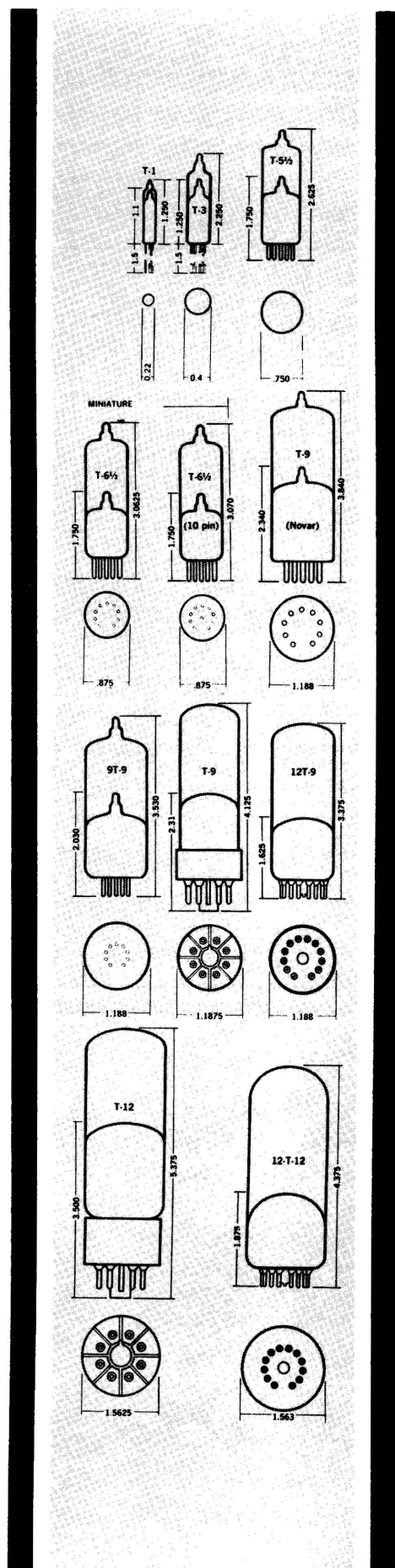
NOVAR—9 pin base (large pin circle .687" dia. and large dia. pins .04") with T-9 or T-12 bulb.

MAGNOVAL—9 pin base (large pin circle .687" dia. and large dia. pins .05") bonded to T-9 bulb, exhaust tip located at bottom.

CERAMIC and METAL—Planar Construction, ceramic and metal envelope, thimble sized, baseless.

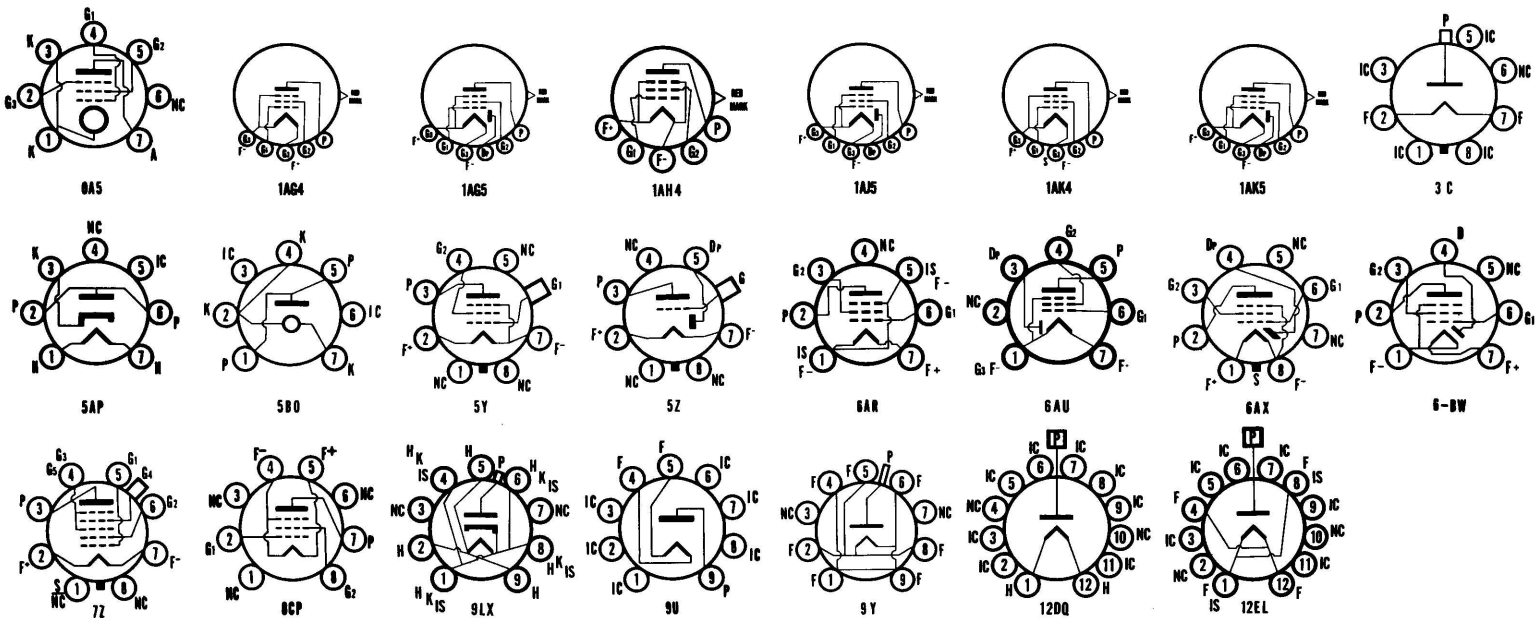
EMITTER COLUMN. When replacing tubes in series string television receivers, attention should be given to the complete type number including the suffix. Prototypes should not be substituted for series string types.

Heater voltage, heater current and heater-cathode voltage ratings of series string tubes may differ widely from those of their prototypes. All series string types have controlled heater warm-up time. In addition, heater current production tolerances for series string tubes are tighter to assure proper steady state voltage distribution. Failure to recognize these differences may result in poor set performance and premature tube failure.



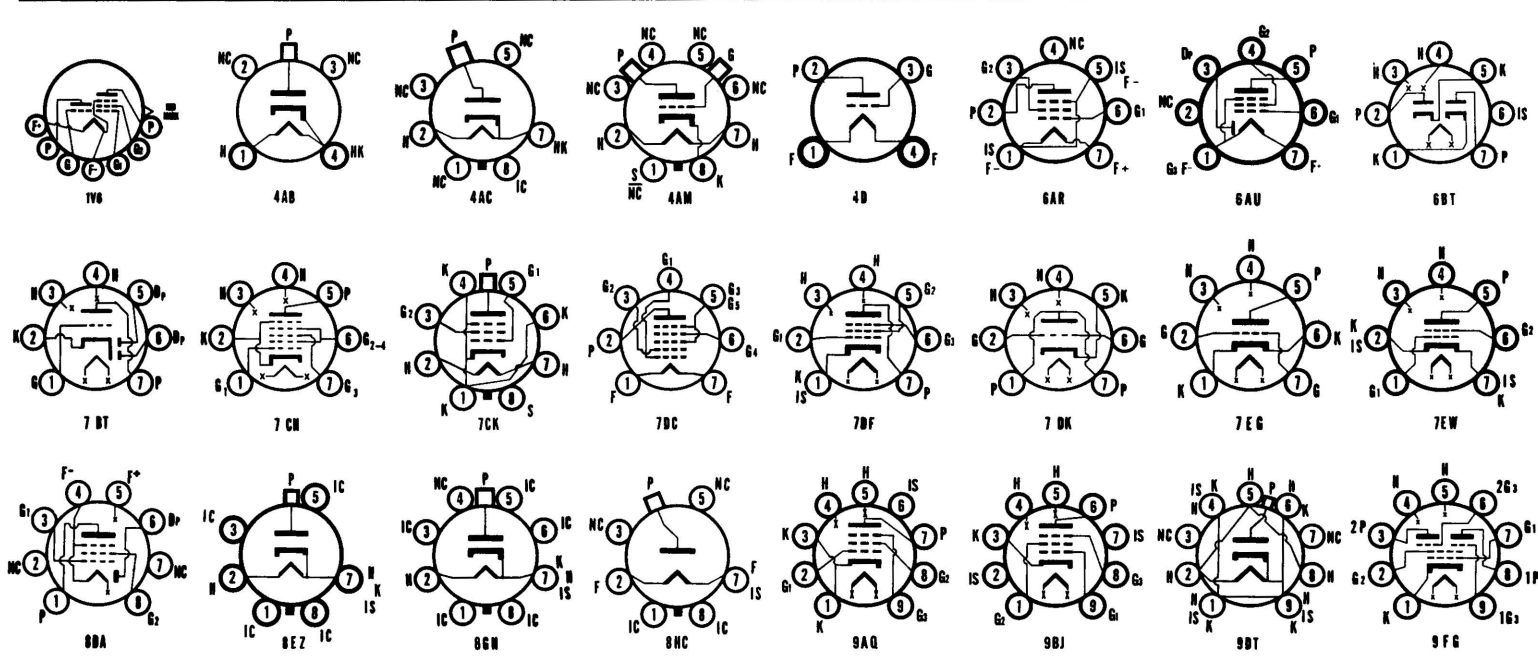
SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|---------------------|---------------------------------|-------------|--------------|---------|-------|--|--------------------------------|---|---------------------|--------------|-------------------|--------------------|-------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| OA2 GB-OA2WA (3) | T-5½ | Diode | 5B0 | .... | .... | Voltage Regulator with Starting Voltage at 185, Operating Voltage 150, Operating Current 5 to 30 Ma. | | | | | | | | | | | |
| OA3 OA3A | ST-12 T-9 | Diode | 4AJ | .... | .... | Voltage Regulator with Starting Voltage at 165, Operating Voltage 75, Operating Current 5 to 40 Ma. | | | | | | | | | | | |
| OA4G | ST-12 | Gas Triode | 4V | .... | .... | Relay Tube Peak Cathode Ma. = 100 D.C. Cathode Ma. = 25 Max. Starter Anode Drop = 60 V. Approx. Anode Drop = 70 V. Approx. | | | | | | | | | | | |
| OA5 | T-5½ | Gas Pentode | OA5 | .... | .... | Switching | 750 | | | | | | | | | | |
| OB2 GB-OB2WA (3) | T-5½ | Diode | 5B0 | .... | .... | Voltage Regulator with Starting Voltage at 115, Operating Voltage 105, Operating Current 5 to 30 Ma. | | | | | | | | | | | |
| OB3 OB3A | ST-12 T-9 | Diode | 4AJ | .... | .... | Voltage Regulator with Starting Voltage at 125, Operating Volts 90, Operating Current 5 Ma. Min., 30 Ma. Max. | | | | | | | | | | | |
| OC2 | T-5½ | Diode | 5B0 | .... | .... | Voltage Regulator with Starting Voltage at 105, Operating Voltage 75, Operating Current 5 Ma. Min., 30 Ma. Max. | | | | | | | | | | | |
| OC3 OC3A | ST-12 T-9 | Diode | 4AJ | .... | .... | Voltage Regulator with Starting Voltage at 135, Operating Volts 105, Operating Current 5 Ma. Min., 40 Ma. Max. | | | | | | | | | | | |
| OD3 OD3A | ST-12 T-9 | Diode | 4AJ | .... | .... | Voltage Regulator with Starting Voltage at 180, Operating 150 Volts, Operating Current 5 Ma. Min., 40 Ma. Max. | | | | | | | | | | | |
| OY4 OY4G | Metal T-7 | Gas Diode | 4BU 4BU | Ionic | .... | H-W Rect. | .... | 117 A.C. Volts Per Plate, RMS, 75 Ma. Max., 40 Ma. Min. Output Current. Starter Anode Connects to Anode thru 10 Megohms By-Passed with .002 pf. | | | | | | | | | |
| OZ4 | Metal | Gas Duodi. | 4R | Ionic | .... | F-W Rect. | .... | 300 A.C. Volts Per Plate, RMS, 90 Ma. Max., 30 Ma. Min. Output Current. | | | | | | | | | |
| OZ4A | Metal | Gas Duodi. | 4R | Ionic | .... | F-W Rect. | .... | 300 A.C. Volts Per Plate, RMS, 110 Ma. Max., 30 Ma. Min. Output Current. | | | | | | | | | |
| OZ4G | T-7 | Gas Duodi. | 4R | Ionic | .... | F-W Rect. | .... | 300 A.C. Volts Per Plate, RMS, 90 Ma. Max., 30 Ma. Min. Output Current. | | | | | | | | | |
| 1A3 | T-5½ | Diode | 5AP | 1.4 | 0.150 | Detector | .... | Half Wave Cathode Type Rectifier for H. F. Use. | | | | | | | | | |
| 1A5GT | T-9 | Power Pent. | 6X | 1.4 | 0.050 | Power Amp. | .... | 85 4.5 85 3.5 0.7 300000 800 25000 100 90 4.5 90 4.0 0.8 300000 850 25000 115 | | | | | | | | | |
| 1A7GT | T-9 | Heptode | 7Z | 1.4 | 0.050 | Converter | .... | 90 0.0 90 0.6 1.2 600000 250 ^a (Ga = 90 V. Max. 1.2 Ma.) | | | | | | | | | |
| 1AC5 | T-3 | Pentode | 8CP | 1.25 | 0.040 | Power Amp. | .... | 30 2.0 30 0.5 0.1 200000 450 50000 5 45 3.0 45 1.0 0.2 170000 600 40000 15 67.5 4.5 67.5 2.0 0.4 150000 750 25000 50 | | | | | | | | | |
| 1AD2 | T-9 | Diode | 12DQ | 1.25 | 0.200 | Flyback H-W Rectifier | .... | Maximum Peak Inverse Plate Voltage = 26,000 Volts, Maximum Peak Plate Current = 50 Ma., Maximum Average Output Current = 0.5 Ma. | | | | | | | | | |
| 1AD5 | T-3 | Pentode | 8CP | 1.25 | 0.040 | R-F Amp. | .... | 30 0 30 0.45 0.16 700000 430 50000 5 45 0 45 0.9 0.35 700000 580 50000 15 67.5 0 67.5 1.85 0.75 700000 735 25000 50 | | | | | | | | | |
| 1AE4 | T-5½ | Pentode | 6AR | 1.25 | 0.100 | R-F Amp. | .... | 90 0 90 3.5 1.2 500000 1550 50000 5 | | | | | | | | | |
| 1AF4 | T-5½ | Pentode | 6AR | 1.4 | 0.025 | R-F Amp. | .... | 67.5 0 67.5 1.2 0.32 2.2 Meg. 925 50000 5 90 0 90 1.8 0.55 1.8 Meg. 1050 50000 15 | | | | | | | | | |
| 1AF5 | T-5½ | Diode Pent. | 6AU | 1.4 | 0.025 | Det. Amp. | .... | 67.5 0 67.5 0.7 0.25 2.8 Meg. 550 50000 5 90 0 90 1.1 0.4 2.0 Meg. 600 50000 15 | | | | | | | | | |
| 1AG4 | T-2X3 | Pentode | 1AG4 | 1.25 | 0.040 | Power Amp. | .... | 41.4 3.6 41.4 2.4 0.6 180000 1000 12000 35 | | | | | | | | | |
| 1AG5 | T-2X3 | Diode Pent. | 1AG5 | 1.25 | 0.030 | Det. Amp. | .... | 45 2.0 45 0.28 0.12 2.5 Meg. 250 50000 5 | | | | | | | | | |
| 1AH4 | T-2X3 | Pentode | 1AH4 | 1.25 | 0.040 | R-F Amp. | .... | 45 5 Meg. ⁴ 45 0.75 0.2 1.5 Meg. 750 50000 5 67.5 5 Meg. ⁴ 67.5 0.75 0.2 2.0 Meg. 750 50000 15 | | | | | | | | | |
| 1AJ2 | Comp. T-9 | Diode | 12EL | 1.25 | 0.200 | Flyback H-W Rect. | .... | Maximum Peak Inverse Plate Voltage = 26,000 Volts. Maximum Peak Plate Current = 50 Ma. Maximum Average Output Current = 0.5 Ma. | | | | | | | | | |
| 1AJ5 | T-2X3 | Diode Pent. | 1AJ5 | 1.25 | 0.040 | Det. Amp. | .... | 45 0 45 1.0 0.3 300000 425 50000 5 | | | | | | | | | |
| 1AK4 | T-2X3 | Pentode | 1AK4 | 1.25 | 0.020 | Class A1 Amp. | .... | 45 0 45 0.75 0.2 150000 750 (Screen Supply = 67.5 Volts Thru .11 Meg. Res.) 67.5 0 67.5 0.75 0.2 200000 750 | | | | | | | | | |
| 1AK5 | T-2X3 | Diode Pent. | 1AK5 | 1.25 | 0.020 | Det. Amp. | .... | 45 0 45 0.5 0.2 400000 280 50000 5 | | | | | | | | | |
| 1AN5 | T-5½ | Pentode | 7ES | 1.4 | 0.025 | I-F Amp. | .... | 90 0 62 1.7 0.7 450000 940 G1 to G2 = 20 | | | | | | | | | |
| 1AU2 | T-6½ | Diode | 9U | 1.10 | 0.190 | Focus H-W Rect. | .... | Maximum Peak Inverse Plate Voltage = 8250 Volts. Maximum Peak Plate Current = 11 Ma. Maximum Average Plate Current = 0.6 Ma. | | | | | | | | | |



SYLVANIA TUBES

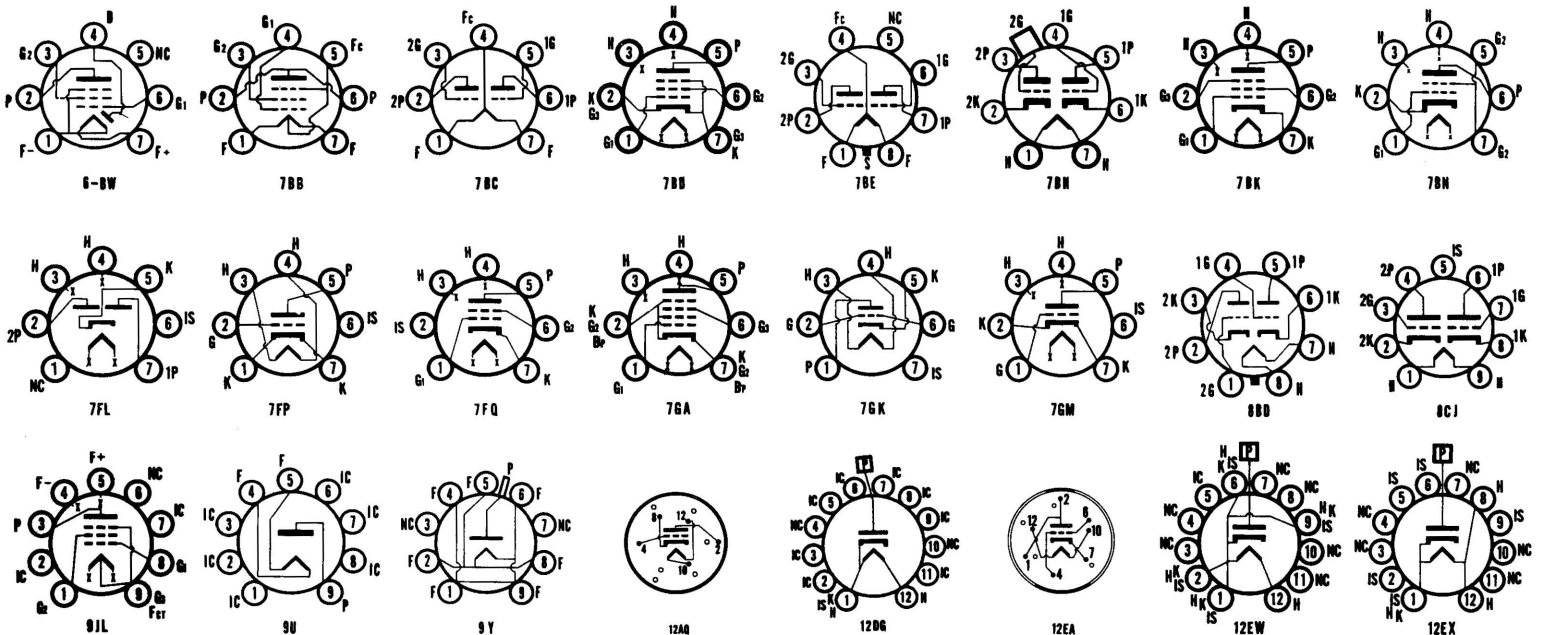
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|----------------|---------------------------------|--------------|--------------|---------|----------------|------------------------------|--------------------------------|---|---------------------|---|--------------------------------|--------------------|--|--------------------------|-------------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 1S5 | T-5½ | Diode Pent. | 6AU | 1.4† | 0.050 | Det. Amp. | .... | 67.5 | 0.0 | 67.5 | 1.6 | 0.4 | 600000 | 625 | .... | .... | .... |
| 1S6 | T-3 | Diode Pent. | 8DA | 1.25† | 0.040 | Det. Amp. | .... | 30 | 0 | 30 | 0.33 | 0.1 | 500000 | 330 | .... | .... | .... |
| | | | | | | | | 45 | 0 | 45 | 0.75 | 0.21 | 500000 | 475 | | | |
| †T4 | T-5½ | Pentode | 6AR | 1.4† | 0.050 | R-F Amp. | .... | 67.5 | 0 | 67.5 | 1.6 | 0.4 | 400000 | 600 | .... | .... | .... |
| | | | | | | | | 45 | 0.0 | 45 | 1.7 | 0.7 | 350000 | 700 | | | |
| 1U4 | T-5½ | Pentode | 6AR | 1.4† | 0.050 | R-F Amp. | .... | 90 | 0 | 90 | 1.6 | 0.45 | 1.6 Meg. | 900 | .... | .... | .... |
| | | | | | | | | 90 | 0.0 | 67.5 | 3.5 | 1.4 | 500000 | 900 | .... | .... | .... |
| 1U5 | T-5½ | Diode Pent. | 6BW | 1.4† | 0.050 | Det. Amp. | .... | Characteristics Same as Type 1S5. | | | | | | | | | |
| 1U6 | T-5½ | Heptode | 7DC | 1.4† | 0.025 | Converter | .... | 67.5 | 0 | 45 | 0.5 | 0.7 | 500000 | 260* | (Ga = 67.5 V., 1.0 Ma.) | | |
| 1V2 | T-6½ | Diode | 9U | 0.625† | 0.300 | H-W Rect. | .... | Television Service. RF or Flyback Supply. Peak Inverse Volts = 8250, Output = 0.6 Ma. | | | | | | | | | |
| | | | | | | | | 45 | 1 Meg.† | | 0.4 | IG1 = 12 μa | | | | | |
| 1V6 | T-2x3 | Tri. Pentode | 1V6 | 1.25† | 0.040 | R-F Osc. R-F Amp. | .... | 45 | 5 Meg.† | 45 | 0.4 | 0.15 | Conv. = 1.0 Meg. | 200* | .... | .... | .... |
| | | | | | | | | | | | | | | | | | |
| 1X2B | T-6½ | Diode | 9Y | 1.25† | 0.200 | H-W Rect. | .... | Television Service, RF or Flyback Supply. Peak Inverse Volts = 22 KV, Output = 0.5 Ma. | | | | | | | | | |
| 2A3 | ST-16 | Triode | 4D | 2.5† | 2.500 | S.T. A1 Amp. P.P.AB1 Amp. | 16.5 | 250 | 45.0 | .... | 60.0 | .... | 800 | 5250 | 4.2 | 2500 | 3500 |
| | | | | | | | | 300 | 62.0 | .... | 80-147†, Push Pull, Fixed Bias | .... | .... | .... | 3000† | 15000 | |
| 2AF4A 2AF4B | T-5½ | Triode | 7DK | 2.35* | 0.600 | UHF Osc. | 2.5 | Characteristics Same as Type 6AF4A. Type 2AF4B has Higher-Cathode Voltage Ratings than Otherwise Identical Type 2AF4A. | | | | | | | | | |
| 2AH2 | Comp. T-9 | Diode | 12DG | 2.5† | 0.300 | Flyback H-W Rect. | .... | Maximum Peak Inverse Plate Voltage = 30,000 Volts. Maximum Peak Plate Current = 80 Ma. Maximum Average Plate Current = 1.5 Ma. | | | | | | | | | |
| 2AS2 | Comp. T-9 | Diode | 12EW | 2.5 | 0.330 | Flyback H-W Rect. | .... | Maximum Peak Inverse Plate Voltage = 30,000 Volts. Maximum Peak Plate Current = 80 Ma. Maximum Average Plate Current = 1.5 Ma. | | | | | | | | | |
| 2B3 | T-9 | Diode | 8HC | 1.75† | 0.250 | H-W Rect. | .... | Television Service. Flyback Supplies. Peak Inverse Volts = 22 KV. Output = 0.5 Ma. | | | | | | | | | |
| 2BN4A | T-5½ | Triode | 7EG | 2.35* | 0.600 | VHF Amp. | 2.42 | Characteristics Same as Type 6BN4A. (2BN4A Designed for Series String Receivers.) | | | | | | | | | |
| 2C21 | ST-12 | Duotriode | 7BH | 6.3 | 0.600 | Amplifier Power Amp. | 2.3 | 250 | 16.5 | .... | 8.3 | .... | 7600 | 1375 | 16.4 | 20000 | .... |
| | | | | | | | | | 250 | 60.0 | | 20.0 | | | | | |
| 2C22 | T-9 | Triode | 4AM | 6.3 | 0.300 | Amplifier | 3.3 | 300 | 10.5 | .... | 11.0 | .... | 6600 | 3000 | 20.0 | .... | .... |
| 2C50 | T-9 | Duotriode | 8BD | 12.6 | 0.300 | Amplifier | 3.85 | 200 | 11 | .... | 18 | .... | 3450 | 2900 | 10 | .... | .... |
| 2C51 | T-6½ | Duotriode | 8CJ | 6.3 | 0.300 | Amplifier | 1.65 | 150 | 240* | .... | 8.2 | .... | 6500 | 5500 | 35 | .... | .... |
| 2C52 | T-9 | Duotriode | 8BD | 12.6 | 0.300 | Amplifier | 1.65 | 250 | 2.0 | .... | 1.3 | .... | 1900 | 100 | .... | .... | .... |
| 2CW4 | M-N | Triode | 12AQ | 2.1* | 0.450 | VHF Amp. | 1.0 | Characteristics Same as Type 6CW4. (2CW4 Designed for Series String Receivers.) | | | | | | | | | |
| 2CY5 | T-5½ | Tetrode | 7EW | 2.4* | 0.600 | VHF Amp. | 2.0 | Characteristics Same as Type 6CY5. (2CY5 Designed for Series String Receivers.) | | | | | | | | | |
| 2D21 | T-5½ | Gas Tetrode | 7BN | 6.3 | 0.600 | Relay Tube | .... | 400 | 5 | Average Cathode Current = 100 Max. Ma., Averaged over any 30 Sec. Interval. | | | | | | | |
| 2DF4 | T-6½ | Pentode | 9JL | 1.25† | 0.345 2.50† | Class "C" Power Amp. | 4.5 | 120 | 3.6 | 120 | 37 | 3.5 | .... | 6850 | .... | .... | .... |
| 2DS4 | M-N | Triode | 12AQ | 2.1* | 0.450 | VHF Amp. | 1.0 | Characteristics Same as Type 6DS4. (2DS4 Designed for Series String Receivers.) | | | | | | | | | |
| 2DV4 | M-N | Triode | 12EA | 2.1* | 0.450 | UHF Osc. | 1.0 | Characteristics Same as Type 6DV4. (2DV4 Designed for Series String Receivers.) | | | | | | | | | |
| 2DX4 | T-5½ | Triode | 7DK | 2.4* | 0.600 | UHF Osc. | 2.2 | Characteristics Same as Type 6DX4. (2DX4 Designed for Series String Receivers.) | | | | | | | | | |
| 2DY4 | T-5½ | Triode | 7DK | 2.05* | 0.450 | UHF Osc. | 1.5 | Characteristics Same as Type 6DY4. (2DY4 Designed for Series String Receivers.) | | | | | | | | | |
| 2DY4A | T-5½ | Triode | 7DK | 2.05* | 0.450 | UHF Osc. | 1.5 | Characteristics Same as Type 6DY4A. (2DY4A Designed for Series String Receivers.) | | | | | | | | | |
| 2DZ4 | T-5½ | Triode | 7DK | 2.35* | 0.600 | UHF Osc. | 2.3 | Characteristics Same as Type 6DZ4. (2DZ4 Designed for Series String Receivers.) | | | | | | | | | |
| 2E26 | T-9 | Beam Pent. | 7CK | 6.3 | 0.800 | Class C Amp. | 10 | 500 | 40.0 | 185 | 60.0 | 11.0 | Driving Power = 0.12 Watts. D.C. Grid No. 1 Current = 3.0 Ma. | | | 2000 | |
| 2EA5 | T-5½ | Tetrode | 7EW | 2.4* | 0.600 | VHF Amp. | 3.25 | Characteristics Same as Type 6EA5. (2EA5 Designed for Series String Receivers.) | | | | | | | | | |
| 2EN5 | T-5½ | Duodiode | 7FL | 2.1* | 0.450 | Phase-Comparator | .... | Diode Current for Continuous Operation (Each Plate) = 20 Ma. Diode Characteristics with 5.0 Volts Applied. Ib = 20 Ma. (Each Plate—Test Condition Only.) | | | | | | | | | |
| 2ER5 | T-5½ | Triode | 7FP | 2.3* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6ER5. (2ER5 Designed for Series String Receivers.) | | | | | | | | | |
| 2ES5 | T-5½ | Triode | 7FP | 2.35* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6ES5. (2ES5 Designed for Series String Receivers.) | | | | | | | | | |
| 2EV5 | T-5½ | Tetrode | 7EW | 2.4* | 0.600 | VHF Amp. | 3.25 | Characteristics Same as Type 6EV5. (2EV5 Designed for Series String Receivers.) | | | | | | | | | |
| 2FH5 | T-5½ | Triode | 7FP | 2.35* | 0.600 | R-F Amp. | 2.2 | Characteristics Same as Type 6FH5. (2FH5 Designed for Series String Receivers.) | | | | | | | | | |



AVERAGE CHARACTERISTICS

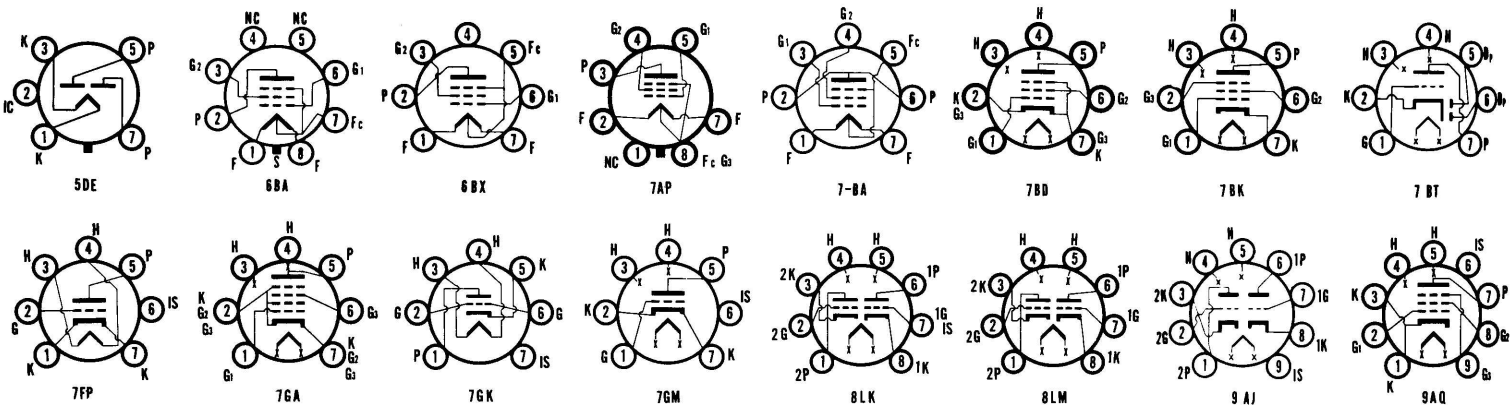
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|---------|---------------------------------|------------------------|--------------|--------------|----------------|-----------------------|--------------------------------|--|---------------------|--------------|-------------------|--------------------|-------------------------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 2FQ5 | T-5½ | Triode | 7FP | 2.3* | 0.600 | VHF Amp. | 2.5 | Characteristics Same as Type 6FQ5. (2FQ5 Designed for Series String Receivers.) | | | | | | | | | |
| 2FQ5A | T-5½ | Triode | 7FP | 2.3* | 0.600 | VHF Amp. | 2.5 | Characteristics Same as Type 6FQ5A. (2FQ5A Designed for Series String Receivers.) | | | | | | | | | |
| 2FS5 | T-5½ | Shadow Grid Beam Pent. | 7GA | 2.4* | 0.600 | VHF Amp. | 3.2 | Characteristics Same as 6FS5. (2FS5 Designed for Series String Receivers.) | | | | | | | | | |
| 2FY5 | T-5½ | Triode | 7FP | 2.4* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6FY5. (2FY5 Designed for Series String Receivers.) | | | | | | | | | |
| 2FV6 | T-5½ | Tetrode | 7FQ | 2.4* | 0.600 | VHF Amp. | 2.0 | Characteristics Same as Type 6FV6. (2FV6 Designed for Series String Receivers.) | | | | | | | | | |
| 2GK5 | T-5½ | Triode | 7FP | 2.3* | 0.600 | VHF Amp. | 2.5 | Characteristics Same as Type 6GK5. (2GK5 Designed for Series String Receivers.) | | | | | | | | | |
| 2GU5 | T-5½ | Pentode | 7GA | 2.4* | 0.600 | VHF Amp. | 3.0 | Characteristics Same as Type 6GU5. (2GU5 Designed for Series String Receivers.) | | | | | | | | | |
| 2GW5 | T-5½ | Triode | 7GK | 2.45* | 0.600 | VHF Amp. | 2.5 | Characteristics Same as Type 6GW5. (2GW5 Designed for Series String Receivers.) | | | | | | | | | |
| 2HA5 | T-5½ | Triode | 7GM | 2.2* | 0.600 | VHF Amp. | 2.6 | Characteristics Same as Type 6HA5. (2HA5 Designed for Series String Receivers.) | | | | | | | | | |
| 2HK5 | T-5½ | Triode | 7GM | 2.3* | 0.600 | VHF Amp. | 2.3 | Characteristics Same as Type 6HK5. (2HK5 Designed for Series String Receivers.) | | | | | | | | | |
| 2HM5 | T-5½ | Triode | 7GM | 2.4* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6HM5. (2HM5 Designed for Series String Receivers.) | | | | | | | | | |
| 2HR8 | T-6½ | Pentode | 9BJ | 2.5* | 0.600 | Amplifier | 1.0 | 250 | 2 | 140 | 3 | 0.6 | 2500 | 2000 | 38 | ..... | ..... |
| 2T4 | T-5½ | Triode | 7DK | 2.35* | 0.600 | UHF Osc. | 3.85 | Characteristics Same as Type 6T4. (2T4 Designed for Series String Receivers.) | | | | | | | | | |
| 2X2 | ST-12 | Diode | 4AB | 2.5† | 1.750 |  | ..... | Maximum Inverse Plate Voltage = 12,500 Volts, Maximum Peak Current = 60 Ma. Maximum Average Current = 7.5 Ma., Maximum RMS Supply Voltage = 5500 Volts. Characteristics Same as 2X2. | | | | | | | | | |
| 2X2A(3) | | | | | | | | TV Service. Peak Inverse Volts = 18 KV. Peak Current = 88 Ma. Average Current = 1.5 Ma. | | | | | | | | | |
| 3A2 | T-6½ | Diode | 9DT | 3.15 | 0.220 | H-W Rect. | ..... | TV Service. Peak Inverse Volts = 30 KV. Peak Current = 80 Ma. Average Current = 1.7 Ma. | | | | | | | | | |
| 3A3 | T-9 | Diode | 4AC | 3.15 | 0.220 | H-W Rect. | ..... | TV Service. Peak Inverse Volts = 30 KV. Peak Current = 80 Ma. Average Current = 1.7 Ma. | | | | | | | | | |
| 3A4 | T-5½ | Pentode | 7BB | 1.4† 2.8† | 0.200 0.100 | Power Amp. | 2.5 | 135 150 | 7.5 8.4 | 90 90 | 14.8 13.3 | 2.6 2.2 | 90000 100000 | 1900 1900 | ..... | 8000 8000 | 600 700 |
| 3A5 | T-5½ | Duotriode | 7BC | 1.4† 2.8† | 0.220 0.110 | Amplifier | 0.55 | 90 135 | 2.5 20.0 | ..... | 3.7 30.0 | ..... | 8300 Push-Pull Class C R.F. Amp. | 1800 | 15 | ..... | 2000 |
| 3AF4A | T-5½ | Triode | 7DK | 3.2* | 0.450 | UHF Osc. | 2.5 | Characteristics Same as Type 6AF4A. | | | | | | | | | |
| 3AF4B | T-5½ | Triode | 7DK | 3.2* | 0.450 | VHF Osc. | 2.7 | Characteristics Same as Type 6AF4A. (3AF4B has Peak Positive and Negative Heater Cathode Voltages of 180 Volt.) | | | | | | | | | |
| 3AL5 | T-5½ | Duodiode | 6BT | 3.15* | 0.600 | Detector | ..... | Characteristics Same as Type 6AL5. (3AL5 Designed for Series String Receivers.) | | | | | | | | | |
| 3AT2 | T-9 | Diode | 12EX | 3.15 | 0.220 | Flyback H-W Rect. | ..... | Maximum Peak Inverse Plate Voltage = 30,000 Volts. Maximum Peak Plate Current = 88 Ma. Maximum Average Plate Current = 1.7 Ma. | | | | | | | | | |
| 3AU6 | T-5½ | Pentode | 7BK | 3.15* | 0.600 | R-F Amp. | 3.3 | Characteristics Same as Type 6AU6. (3AU6 Designed for Series String Receivers.) | | | | | | | | | |
| 3AV6 | T-5½ | Duodiode Tri. | 7BT | 3.15* | 0.600 | Det. Amp. | 0.55 | Characteristics Same as Type 6AV6. (3AV6 Designed for Series String Receivers.) | | | | | | | | | |
| 3AW3 | T-9 | Diode | 8EZ | 3.15† | 0.220 | Flyback H-W Rect. | ..... | Maximum Peak Inverse Volts = 30,000 Volts. Maximum Peak Plate Current = 88 Ma. Maximum Average Plate Current = 1.7 Ma. | | | | | | | | | |
| 3B2 | T-12 | Diode | 8GH | 3.15 | 0.220 | H-W Rect. | ..... | TV Service. Pulsed Rectifier Service. Max. Peak Inverse Volts = 35 Kv, Output = 1.1 Ma. | | | | | | | | | |
| 3B7 | Lock-in | Duotriode | 7BE | 2.8† 1.4† | 0.110 0.220 | Power Amp. Oscillator | 2.97 | 135 180 | 0 0 | ..... | 22.0 25.0 | ..... | 1900 (Class C) R.F. Pwr. Amp. | 20 | 16000 | 1500 | |
| 3BA6 | T-5½ | Pentode | 7BK | 3.15* | 0.600 | I-F or R-F Amplifier | 3.3 | Characteristics Same as Type 6BA6. (3BA6 Designed for Series String Receivers.) | | | | | | | | | |
| 3BC5 | T-5½ | Pentode | 7BD | 3.15* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6BC5. (3BC5 Designed for Series String Receivers.) | | | | | | | | | |
| 3BE6 | T-5½ | Heptode | 7CH | 3.15* | 0.600 | Converter | 1.1 | Characteristics Same as Type 6BE6. (3BE6 Designed for Series String Receivers.) | | | | | | | | | |
| 3BN4A | T-5½ | Triode | 7EG | 3.0* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6BN4A. (3BN4A Designed for Series String Receivers.) | | | | | | | | | |
| 3BN6 | T-5½ | Gated Beam | 7DF | 3.15* | 0.600 | Quad. Det. | ..... | Characteristics Same as Type 6BN6. (3BN6 Designed for Series String Receivers.) | | | | | | | | | |
| 3BU8 | T-6½ | Duo Pentode | 9FG | 3.15* | 0.600 | Sync. Sep. | 1.1 | Characteristics Same as Type 6BU8. (3BU8 Designed for Series String Receivers.) | | | | | | | | | |
| 3BX6 | T-6½ | Pentode | 9AQ | 3.4* | 0.600 | VHF Amp. | 2.5 | Characteristics Same as Type 6BX6. (3BX6 Designed for Series String Receivers.) | | | | | | | | | |
| 3BY6 | T-5½ | Heptode | 7CH | 3.15* | 0.600 | Sync. Sep. | 2.2 | Characteristics Same as Type 6BY6. (3BY6 Designed for Series String Receivers.) | | | | | | | | | |
| 3BY7 | T-6½ | Pentode | 9AQ | 3.4* | 0.600 | VHF Amp. | 2.7 | 100 250 | 1.1 2.0 | 57 100 | 5.5 10 | 1.6 2.5 | 250000 600000 | 5000 6000 | ..... | ..... |  |

- (1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Conversion Transconductance. ‡ Plate to Plate. ¶ Cathode Resistor (ohms).



SYLVANIA TUBES

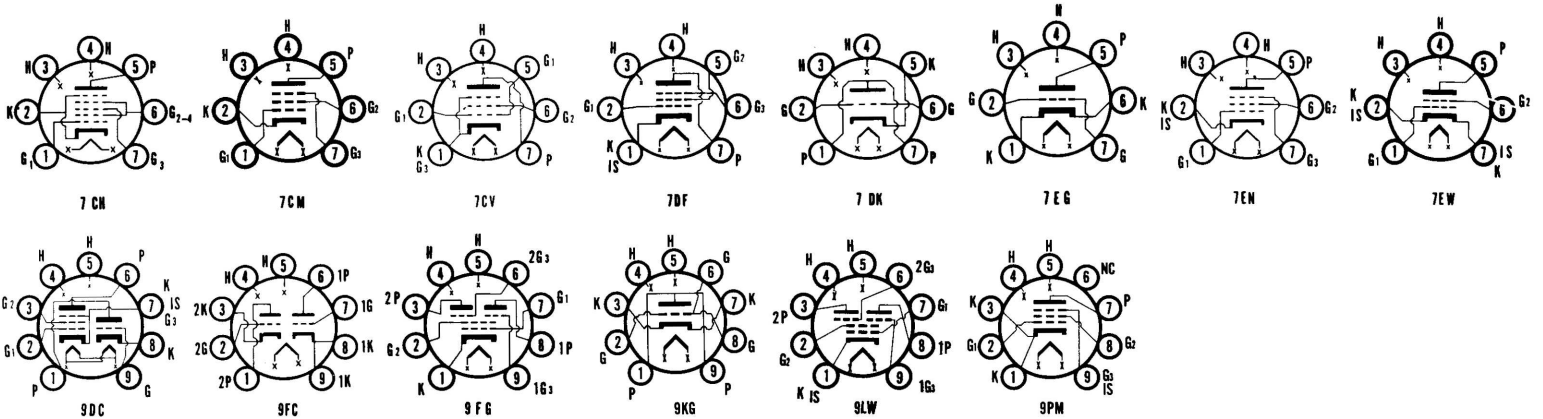
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|--------------------------|------------------------|----------------|----------------|---------------------|--------------------------------|--|---------------------|----------------|-------------------|--------------------|----------------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 3B26 | T-5½ | Pentode | 7CM | 3.15* | 0.600 | VHF Amp. | 2.3 | Characteristics Same as Type 6B26. (3B26 Designed for Series String Receivers.) | | | | | | | | | |
| 3CB6 | T-5½ | Pentode | 7CM | 3.15* | 0.600 | Amplifier | 2.3 | Characteristics Same as Type 6CB6. (3CB6 Designed for Series String Receivers.) | | | | | | | | | |
| 3CE5 | T-5½ | Pentode | 7BD | 3.15* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6CE5. (3CE5 Designed for Series String Receivers.) | | | | | | | | | |
| 3CF6 | T-5½ | Pentode | 7CM | 3.15* | 0.600 | VHF Amp. | 2.3 | Characteristics Same as Type 6CF6. (3CF6 Designed for Series String Receivers.) | | | | | | | | | |
| 3CS6 | T-5½ | Heptode | 7CH | 3.15* | 0.600 | Sync. Sep. | 1.0 | Characteristics Same as Type 6CS6. (3CS6 Designed for Series String Receivers.) | | | | | | | | | |
| 3CY5 | T-5½ | Tetrode | 7EW | 2.9* | 0.450 | VHF Amp. | 2.0 | Characteristics Same as Type 6CY5. (3CY5 Designed for Series String Receivers.) | | | | | | | | | |
| 3D6 | Lock-in | Beam Pent. | 6BA | 2.8♠ 1.4♠ | 0.110 0.220 | Power Amp. | 4.95 | 150 150 | 4.5 20.0 | 90 135 | 10.2 23.0 | 1.8 6.0 | (Class A) (Class C) | 2400 R.F. Power Amp. | 14000 at 50 mc. | 600 1400 | |
| 3DG4 | T-12 | Duodiode | 5DE Directly Heated | 3.3 Cathode | 3.800 | F-W Rect. | .... | 275 A.C. Volts Per Plate, RMS, 350 Ma. Output Current. Condensor Input to Filter. 300 Volts D.C. Output. | | | | | | | | | |
| 3DK6 | T-5½ | Pentode | 7CM | 3.15* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6DK6. (3DK6 Designed for Series String Receivers.) | | | | | | | | | |
| 3DT6 | T-5½ | Gated Beam | 7EN | 3.15* | 0.600 | Quad F. M. Det. | 1.65 | Characteristics Same as Type 6DT6. (3DT6 Designed for Series String Receivers.) | | | | | | | | | |
| 3DT6A | T-5½ | Gated Beam | 7EN | 3.15* | 0.600 | Quad F. M. Det. | 1.7 | Characteristics Same as Type 6DT6A. (3DT6A Designed for Series String Receivers.) | | | | | | | | | |
| 3DX4 | T-5½ | Triode | 7DK | 3.0* | 0.450 | UHF Osc. | 2.2 | Characteristics Same as Type 6DX4. (3DX4 Designed for Series String Receivers.) | | | | | | | | | |
| 3DY4 | T-5½ | Triode | 7DK | 2.9* | 0.300 | UHF Osc. | 1.5 | Characteristics Same as Type 6DY4. (3DY4 Designed for Series String Receivers.) | | | | | | | | | |
| 3DY4A | T-5½ | Triode | 7DK | 2.9* | 0.300 | UHF Osc. | 1.5 | Characteristics Same as Type 6DY4A. (3DY4A Designed for Series String Receivers.) | | | | | | | | | |
| 3DZ4 | T-5½ | Triode | 7DK | 2.3* | 0.450 | UHF Osc. | 2.3 | Characteristics Same as Type 6DZ4. (3DZ4 Designed for Series String Receivers.) | | | | | | | | | |
| 3EA5 | T-5½ | Tetrode | 7EW | 2.9* | 0.450 | VHF Amp. | 3.25 | Characteristics Same as Type 6EA5. (3EA5 Designed for Series String Receivers.) | | | | | | | | | |
| 3EH7 | T-6½ | Pentode | 9AQ | 3.4* | 0.600 | VHF Amp. | 2.7 | Characteristics Same as Type 6EH7. (3EH7 Designed for Series String Receivers.) | | | | | | | | | |
| 3EJ7 | T-6½ | Pentode | 9AQ | 3.4* | 0.600 | VHF Amp. | 2.7 | Characteristics Same as Type 6EJ7. (3EJ7 Designed for Series String Receivers.) | | | | | | | | | |
| 3ER5 | T-5½ | Triode | 7FP | 2.8* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6ER5. (3ER5 Designed for Series String Receivers.) | | | | | | | | | |
| 3ES5 | T-5½ | Triode | 7FP | 3.0* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6ES5. (3ES5 Designed for Series String Receivers.) | | | | | | | | | |
| 3EV5 | T-5½ | Tetrode | 7EW | 2.9* | 0.450 | VHF Amp. | 3.25 | Characteristics Same as Type 6EV5. (3EV5 Designed for Series String Receivers.) | | | | | | | | | |
| 3FH5 | T-5½ | Triode | 7FP | 3.0* | 0.450 | R-F Amp. | 2.2 | Characteristics Same as Type 6FH5. (3FH5 Designed for Series String Receivers.) | | | | | | | | | |
| 3FQ5 | T-5½ | Triode | 7FP | 2.8* | 0.450 | VHF Amp. | 2.5 | Characteristics Same as Type 6FQ5. (3FQ5 Designed for Series String Receivers.) | | | | | | | | | |
| 3FQ5A | T-5½ | Triode | 7FP | 2.8* | 0.450 | VHF Amp. | 2.5 | Characteristics Same as Type 6FQ5A. (3FQ5A Designed for Series String Receivers.) | | | | | | | | | |
| 3FS5 | T-5½ | Shadow Grid Beam Pentode | 7GA | 2.9* | 0.450 | VHF Amp. | 3.2 | Characteristics Same as Type 6FS5. (3FS5 Designed for Series String Receivers.) | | | | | | | | | |
| 3FW7 | T-3 | Twin Triode | 8LM | 3.5* | 0.600 | VHF Osc.-Mixer | .... | Characteristics Same as Type 6FW7. (3FW7 Designed for Series String Receivers.) | | | | | | | | | |
| 3FX7 | T-3 | Twin Triode | 8LK | 3.5* | 0.600 | VHF Amp. | 1.7 | Characteristics Same as Type 6FX7. (3FX7 Designed for Series String Receivers.) | | | | | | | | | |
| 3FY5 | T-5½ | Triode | 7FP | 3.1* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6FY5. (3FY5 Designed for Series String Receivers.) | | | | | | | | | |
| 3GK5 | T-5½ | Triode | 7FP | 2.8* | 0.450 | VHF Amp. | 2.5 | Characteristics Same as Type 6GK5. (3GK5 Designed for Series String Receivers.) | | | | | | | | | |
| 3GS8 | T-6½ | Duo Pent. | 9LW | 3.15* | 0.600 | Sync. Sep. | 1.1 | Characteristics Same as Type 6GS8. (3GS8 Designed for Series String Receivers.) | | | | | | | | | |
| 3GU5 | T-5½ | Pentode | 7GA | 3.1* | 0.450 | VHF Amp. | 3.0 | Characteristics Same as Type 6GU5. (3GU5 Designed for Series String Receivers.) | | | | | | | | | |
| 3GW5 | T-5½ | Triode | 7GK | 3.0* | 0.450 | VHF Amp. | 2.5 | Characteristics Same as Type 6GW5. (3GW5 Designed for Series String Receivers.) | | | | | | | | | |
| 3HA5 | T-5½ | Triode | 7GM | 2.7* | 0.450 | VHF Amp. | 2.6 | Characteristics Same as Type 6HA5. (3HA5 Designed for Series String Receivers.) | | | | | | | | | |
| 3HK5 | T-5½ | Triode | 7GM | 2.9* | 0.450 | VHF Amp. | 2.3 | Characteristics Same as Type 6HK5. (3HK5 Designed for Series String Receivers.) | | | | | | | | | |
| 3HM5 | T-5½ | Triode | 7GM | 2.9* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6HM5. (3HM5 Designed for Series String Receivers.) | | | | | | | | | |
| 3HM6 | T-6½ | Pentode | 9PM | 3.15* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6HM6. (3HM6 Designed for Series String Receivers.) | | | | | | | | | |
| 3HS8 | T-6½ | Twin Pent. | 9LW | 3.15* | 0.600 | AGC/Sync. Amplifier | 1.1 | Characteristics Same as Type 6HS8. (3HS8 Designed for Series String Receivers.) | | | | | | | | | |
| 3HT6 | T-6½ | Pentode | 9PM | 3.15* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6HT6. (3HT6 Designed for Series String Receivers.) | | | | | | | | | |
| 3JC6 | T-6½ | Pentode | 9PM | 3.5* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JC6. (3JC6 Designed for Series String Receivers.) | | | | | | | | | |
| 3JD6 | T-6½ | Pentode | 9PM | 3.5* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JD6. (3JD6 Designed for Series String Receivers.) | | | | | | | | | |
| 3KF8 | T-6½ | Twin Pentode | 9FG | 3.15* | 0.600 | Sync. AGC | 1.1 | Characteristics Same as Type 6KF8. (3KF8 Designed for Series String Receivers.) | | | | | | | | | |
| 3Q4 | T-5½ | Power Pent. | 7BA | 1.4♠ 2.8♠ | 0.100 0.050 | Power Amp. | .... | 85 90 90 | 5.0 4.5 4.5 | 85 90 90 | 6.9 9.5 7.7 | 1.5 2.1 1.7 | 120000 100000 120000 | 1975 2150 2000 | .... .... .... | 10000 10000 10000 | 250 270 240 |



AVERAGE CHARACTERISTICS

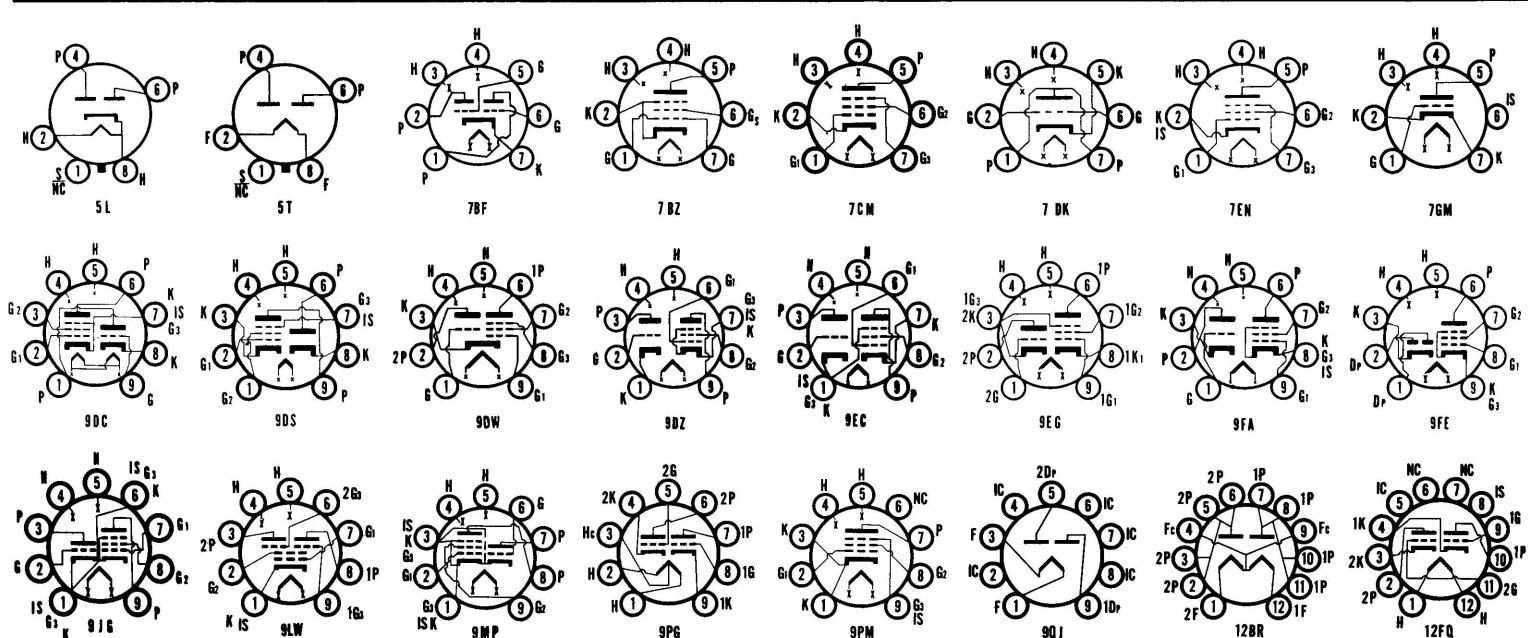
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|----------------------|--------------|--------------|----------------|----------------------|--------------------------------|---|--------------------------------------|--------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 3Q5GT | T-9 | Beam Pent. | 7AP | 1.44 2.84 | 0.100 0.050 | Power Amp. | .... | 90 90 | 4.5 4.5 | 90 90 | 9.5 8.0 | 1.3 1.0 | 90000 80000 | 2200 2000 | .... | 8000 8000 | 270 230 |
| 3S4 | T-5½ | Power Pent. | 7BA | 1.44 2.84 | 0.100 0.050 | Power Amp. | .... | 90 90 | 7.0 7.0 | 67.5 67.5 | 7.4 6.1 | 1.4 1.1 | 100000 100000 | 1575 1425 | .... | 8000 8000 | 270 235 |
| 3V4 | T-5½ | Power Pent. | 6BX | 1.44 2.84 | 0.100 0.050 | Power Amp. | .... | Characteristics Same as Type 3Q4. | | | | | | | | | |
| 3Z4 | T-5½ | Power Pent. | 7BA | 1.44 2.84 | 0.050 0.025 | Power Amp. | .... | 67.5 | 7.0 | 67.5 | 6.5 | 1.3 | 100000 | 1450 | .... | 8000 | 210 |
| 4AU6 | T-5½ | Pentode | 7BK | 4.2* | 0.450 | R-F Amp. | 3.3 | Characteristics Same as Type 6AU6. (4AU6 Designed for Series String Receivers.) | | | | | | | | | |
| 4AV6 | T-5½ | Duodiode Tri. | 7BT | 4.2* | 0.450 | Det. Amp. | .55 | Characteristics Same as Type 6AV6. (4AV6 Designed for Series String Receivers.) | | | | | | | | | |
| 4BA6 | T-5½ | Pentode | 7BK | 4.2* | 0.450 | R-F Amp. | 3.3 | Characteristics Same as Type 6BA6. (4BA6 Designed for Series String Receivers.) | | | | | | | | | |
| 4BC5 | T-5½ | Pentode | 7BD | 4.2* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6BC5. (4BC5 Designed for Series String Receivers.) | | | | | | | | | |
| 4BC8 | T-6½ | Duotriode | 9AJ | 4.2* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6BC8. (4BC8 Designed for Series String Receivers.) | | | | | | | | | |
| 4BE6 | T-5½ | Heptode | 7CH | 4.2* | 0.450 | Converter | 1.1 | Characteristics Same as Type 6BE6. (4BE6 Designed for Series String Receivers.) | | | | | | | | | |
| 4BL8 | T-6½ | Tri. Pentode | 9DC | 4.6* | 0.600 | VHF Osc. VHF Amp. | 1.6 1.8 | Characteristics Same as Type 6BL8. (4BL8 Designed for Series String Receivers.) | | | | | | | | | |
| 4BN4 | T-5½ | Triode | 7EG | 4.2 | 0.300 | VHF Amp. | 2.42 | Characteristics Same as Type 6BN4. | | | | | | | | | |
| 4BN6 | T-5½ | Gated Beam | 7DF | 4.2* | 0.450 | Quad. F. M. Det. | .... | Characteristics Same as Type 6BN6. (4BN6 Designed for Series String Receivers.) | | | | | | | | | |
| 4BQ7A | T-6½ | Duotriode | 9AJ | 4.2* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6BQ7A. (4BQ7A Designed for Series String Receivers.) | | | | | | | | | |
| 4BS8 | T-6½ | Duotriode | 9AJ | 4.5* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6BS8. (4BS8 Designed for Series String Receivers.) | | | | | | | | | |
| 4BX8 | T-6½ | Duotriode | 9AJ | 4.5* | 0.600 | VHF Amp. | 2.0 | Characteristics Same as Type 6BX8. (4BX8 Designed for Series String Receivers.) | | | | | | | | | |
| 4BZ6 | T-5½ | Pentode | 7CM | 4.2* | 0.450 | R-F Amp. | 2.3 | Characteristics Same as Type 6BZ6. (4BZ6 Designed for Series String Receivers.) | | | | | | | | | |
| 4BZ7 | T-6½ | Duotriode | 9AJ | 4.2* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6BZ7. (4BZ7 Designed for Series String Receivers.) | | | | | | | | | |
| 4BZ8 | T-6½ | Duotriode | 9AJ | 4.2* | 0.600 | VHF Amp. | 2.4 | Characteristics Same as Type 6BZ8. (4BZ8 Designed for Series String Receivers.) | | | | | | | | | |
| 4CB6 | T-5½ | Pentode | 7CM | 4.2* | 0.450 | VHF Amp. | 2.3 | Characteristics Same as Type 6CB6. (4CB6 Designed for Series String Receivers.) | | | | | | | | | |
| 4CE5 | T-5½ | Pentode | 7BD | 4.2* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6CE5. (4CE5 Designed for Series String Receivers.) | | | | | | | | | |
| 4CM4 | T-6½ | Triode | 9KG | 3.8 | 0.300 | VHF Amp. | 1.1 | Characteristics Same as Type 6CM4. (4CM4 Designed for Series String Receivers.) | | | | | | | | | |
| 4CS6 | T-5½ | Dual Control Heptode | 7CH | 4.2 | 0.450 | Sync. Sep. | 1.1 | Characteristics Same as Type 6CS6. (4CS6 Designed for Series String Receivers.) | | | | | | | | | |
| 4CX7 | T-6½ | Duotriode | 9FC | 4.2* | 0.600 | Amplifier | 2.2 | Characteristics Same as Type 6CX7. (4CX7 Designed for Series String Receivers.) | | | | | | | | | |
| 4CY5 | T-5½ | Tetrode | 7EW | 4.5* | 0.300 | VHF Amp. | 2.2 | Characteristics Same as Type 6CY5. (4CY5 Designed for Series String Receivers.) | | | | | | | | | |
| 4DE6 | T-5½ | Pentode | 7CM | 4.2* | 0.450 | VHF Amp. | 2.3 | Characteristics Same as Type 6DE6. (4DE6 Designed for Series String Receivers.) | | | | | | | | | |
| 4DK6 | T-5½ | Pentode | 7CM | 4.2* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6DK6. (4DK6 Designed for Series String Receivers.) | | | | | | | | | |
| 4DT6 | T-5½ | Gated Beam | 7EN | 4.2* | 0.450 | Quad. F. M. Det. | 1.65 | Characteristics Same as Type 6DT6. (4DT6 Designed for Series String Receivers.) | | | | | | | | | |
| 4DT6A | T-5½ | Gated Beam | 7EN | 4.2* | 0.450 | Quad. F. M. Det. | 1.7 | Characteristics Same as Type 6DT6A. (4DT6A Designed for Series String Receivers.) | | | | | | | | | |
| 4EH7 | T-6½ | Pentode | 9AQ | 4.4* | 0.450 | VHF Amp. | 2.7 | Characteristics Same as Type 6EH7. (4EH7 Designed for Series String Receivers.) | | | | | | | | | |
| 4EJ7 | T-6½ | Pentode | 9AQ | 4.4* | 0.450 | VHF Amp. | 2.7 | Characteristics Same as Type 6EJ7. (4EJ7 Designed for Series String Receivers.) | | | | | | | | | |
| 4ES8 | T-6½ | Duotriode | 9AJ | 4.0 | 0.600 | VHF Amp. | 1.98 | Characteristics Same as Type 6ES8. (4ES8 Designed for Series String Receivers.) | | | | | | | | | |
| 4EW6 | T-5½ | Pentode | 7CM | 4.2* | 0.600 | VHF Amp. | 3.1 | Characteristics Same as Type 6EW6. (4EW6 Designed for Series String Receivers.) | | | | | | | | | |
| 4GK5 | T-5½ | Triode | 7FP | 4.0* | 0.300 | VHF Amp. | 2.5 | Characteristics Same as Type 6GK5. (4GK5 Designed for Series String Receivers.) | | | | | | | | | |
| 4GM6 | T-5½ | Pentode | 7CM | 4.2* | 0.600 | VHF Amp. | 3.1 | Characteristics Same as Type 6GM6. (4GM6 Designed for Series String Receivers.) | | | | | | | | | |
| 4GS8 | T-6½ | Duo. Pent. | 9LW | 4.2* | 0.450 | Sync. Sep. | 1.1 | Characteristics Same as Type 6GS8. (4GS8 Designed for Series String Receivers.) | | | | | | | | | |
| 4GW5 | T-5½ | Triode | 7GK | 4.2* | 0.300 | VHF Amp. | 2.5 | Characteristics Same as Type 6GW5. (4GW5 Designed for Series String Receivers.) | | | | | | | | | |
| 4GZ5 | T-5½ | Beam Pent. | 7CV | 4.0* | 0.600 | S.T.A1 Amp. | 4.8 | 250 250 | 270 [■] 270 [■] | 250 250 | 16 16 | 2.7 2.7 | 150000 | 8400 .... | .... .... | 15000 15000 | 1.1 1.8 |

(1) See Frontal Section. (2) Design Maximum Values. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 † Maximum Signal. ‡ Filamentary Type. § Conversion Transconductance. ¶ Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milliwatts |
|--------|---------------------------------|----------------|--------------|---------|-------|-----------------------------|--------------------------------|---|---------------------|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|-------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 4HA5 | T-5½ | Triode | 7GM | 3.9* | 0.300 | VHF Amp. | 2.6 | Characteristics Same as Type 6HA5. (4HA5 Designed for Series String Receivers.) | | | | | | | | | |
| 4HA7 | Comp. T-9 | Double Tri. | 12FQ | 4.2* | 0.600 | Phase Inverter Voltage Amp. | 2.75 0.30 | 250 250 | 8.5 2.0 | ..... | 10.5 1.2 | ..... | 7700 62500 | 2200 1600 | 17 100 | ..... | ..... |
| 4HG8 | T-6½ | Tri. Pentode | 9MP | 4.5* | 0.600 | VHF Mixer | 2.0 | Characteristics Same as Type 6HG8. (4HG8 Designed for Series String Receivers.) | | | | | | | | | |
| 4HK5 | T-5½ | Triode | 7GM | 4.0* | 0.300 | VHF Amp. | 2.3 | Characteristics Same as Type 6HK5. (4HK5 Designed for Series String Receivers.) | | | | | | | | | |
| 4HM5 | T-5½ | Triode | 7GM | 4.0* | 0.300 | VHF Amp. | 2.2 | Characteristics Same as Type 6HM5. (4HM5 Designed for Series String Receivers.) | | | | | | | | | |
| 4HM6 | T-6½ | Pentode | 9PM | 4.2* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6HM6. (4HM6 Designed for Series String Receivers.) | | | | | | | | | |
| 4HR8 | T-6½ | Pentode | 9BJ | 4.5* | 0.300 | Amplifier | 1.0 | 250 | 2 | 140 | 3 | 0.6 | 2500 | 2000 | 38 | ..... | ..... |
| 4HS8 | T-6½ | Twin Pentode | 9LW | 4.2* | 0.450 | AGC/Sync. Amplifier | 1.1 | Characteristics Same as Type 6HS8. (4HS8 Designed for Series String Receivers.) | | | | | | | | | |
| 4HT6 | T-6½ | Pentode | 9PM | 4.2* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6HT6. (4HT6 Designed for Series String Receivers.) | | | | | | | | | |
| 4JC6 | T-6½ | Pentode | 9PM | 4.5* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JC6. (4JC6 Designed for Series String Receivers.) | | | | | | | | | |
| 4JD6 | T-6½ | Pentode | 9PM | 4.5* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JD6. (4JD6 Designed for Series String Receivers.) | | | | | | | | | |
| 4JK6 | T-5½ | Pentode | 7CM | 3.7* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JK6. (4JK6 Designed for Series String Receivers.) | | | | | | | | | |
| 4JL6 | T-5½ | Pentode | 7CM | 3.7* | 0.600 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JL6. (4JL6 Designed for Series String Receivers.) | | | | | | | | | |
| 4KF8 | T-6½ | Twin-Pentode | 9PG | 4.2* | 0.450 | Sync. AGC | 1.1 | Characteristics Same as Type 6KF8. (4KF8 Designed for Series String Receivers.) | | | | | | | | | |
| 4KN8 | T-6½ | Twin Triode | 9AJ | 4.2* | 0.600 | VHF Amp. | 2.2 | Characteristics Same as Type 6KN8. (4KN8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AF4A | T-5½ | Triode | 7DK | 4.7* | 0.300 | UHF Osc. | 2.5 | Characteristics Same as Type 6AF4A. (5AF4A Designed for Series String Receivers.) | | | | | | | | | |
| 5AM8 | T-6½ | Diode Pent. | 9CY | 4.7* | 0.600 | Amp. Det. | 3.2 | Characteristics Same as Type 6AM8. (5AM8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AN8 | T-6½ | Tri. Pentode | 9DA | 4.7* | 0.600 | Tri. Amp. Pent. Amp. | 2.86 2.2 | Characteristics Same as Type 6AN8. (5AN8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AQ5 | T-5½ | Beam Pent. | 7BZ | 4.7* | 0.600 | Power Amp. | 13.2 | Characteristics Same as Type 6AQ5. (5AQ5 Designed for Series String Receivers.) | | | | | | | | | |
| 5AR4 | T-11 | Duodiode | 5L | 5.0♠ | 1.900 | F-W Rect. | ..... | 450 A.C. Volts Per Plate, RMS, 250 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5AS4 | ST-16 | Duodiode | 5T | 5.0 | 3.000 | Full-Wave Rectifier | ..... | Characteristics Same as Type 5U4GB. | | | | | | | | | |
| 5AS4A | T-12 | Duodiode | 5T | 5.0 | 3.000 | Full-Wave Rectifier | ..... | Characteristics Same as Type 5U4GB. | | | | | | | | | |
| 5AS8 | T-6½ | Diode Pent. | 9DS | 4.7* | 0.600 | Det. Amp. | 2.75 | Characteristics Same as Type 6AS8. (5AS8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AT4 | ST-16 | Duodiode | 5L | 5.0♠ | 5.500 | F-W Rect. | ..... | 550 A.C. Volts Per Plate, RMS, 800 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5AT8 | T-6½ | Tri. Pentode | 9DW | 4.7* | 0.600 | Tri. Osc. Converter | 1.7 2.3 | Characteristics Same as Type 6AT8. (5AT8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AU4 | T-12 | Duodiode | 5T | 4.5♠ | 3.75 | F-W Rect. | ..... | 400 A.C. Volts Per Plate, 325 Ma. Output Current. Condenser Input to Filter. 500 A.C. Volts Per Plate, 325 Ma. Output Current. Choke Input to Filter. | | | | | | | | | |
| 5AV8 | T-6½ | Tri. Pentode | 9DZ | 4.7* | 0.600 | Tri. Amp. Pent. Amp. | 2.75 2.2 | Characteristics Same as Type 6AN8. (5AV8 Designed for Series String Receivers.) | | | | | | | | | |
| 5AW4 | T-12 | Duodiode | 5T | 5.0♠ | 4.000 | F-W Rect. | ..... | 450 A.C. Volts Per Plate, RMS, 250 Ma. Output Current. Condenser Input to Filter. Peak Current = 750 Ma. Per Plate. | | | | | | | | | |
| 5AX4GT | T-9 | Duodiode | 5T | 5.0♠ | 2.250 | F-W Rect. | ..... | 350 A.C. Volts Per Plate, RMS, 150 Ma. D.C. Output Current. Condenser Input to Filter. 500 A.C. Volts Per Plate, RMS, 150 Ma. D.C. Output Current. Choke Input to Filter. | | | | | | | | | |
| 5AZ3 | Comp. T-12 | Duodiode | 12BR | 5.0♠ | 3.000 | F-W Rect. | ..... | 300 A.C. Volts Per Plate, RMS, 300 Ma. Output Current. Condenser Input to Filter. 450 A.C. Volts Per Plate, RMS, 275 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5AZ4 | Lock-in | Duodiode | 5T | 5.0♠ | 2.000 | F-W Rect. | ..... | Characteristics Same as Type 5Y3GT. | | | | | | | | | |
| 5B8 | T-6½ | Tri. Pentode | 9EC | 4.7* | 0.600 | Tri. Amp. Pent. Amp. | 2.2 2.75 | 200 200 | 6 180 | 150 | 13 9.5 | 2.8 | 5750 300000 | 3300 6200 | 19 ..... | ..... ..... | ..... ..... |
| 5B8 | T-6½ | Tri. Pentode | 9EC | 4.7* | 0.600 | Tri. Amp. Pent. Amp. | 2.2 2.75 | 200 200 | 6 180 | 150 | 13 9.5 | 2.8 | 5750 300000 | 3300 6200 | 19 ..... | ..... ..... | ..... ..... |
| 5BC3 | Novar T-12 | Duodiode | 9QJ | 5.0♠ | 3.000 | F-W Rect. | ..... | 450 A.C. Volts Per Plate, RMS, 275 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5BE8 | T-6½ | Tri. Pentode | 9EG | 4.7* | 0.600 | Tri. Osc. Converter | 2.75 3.0 | Characteristics Same as Type 6U8. (5BE8 Designed for Series String Receivers.) | | | | | | | | | |
| 5BK7A | T-6½ | Duotriode | 9AJ | 4.7* | 0.600 | VHF Amp. | 2.97 | Characteristics Same as Type 6BK7A. (5BK7A Designed for Series String Receivers.) | | | | | | | | | |
| 5BQ7A | T-6½ | Duotriode | 9AJ | 5.6* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6BQ7A. (5BQ7A Designed for Series String Receivers.) | | | | | | | | | |
| 5BR8 | T-6½ | Triode Pentode | 9FA | 4.7* | 0.600 | Osc. Mixer | 2.97 3.0 | Characteristics Same as Type 6BR8. (5BR8 Designed for Series String Receivers.) | | | | | | | | | |
| 5BT8 | T-6½ | Duodi. Pent. | 9FE | 4.7* | 0.600 | Amp. Det. | 2.2 | Characteristics Same as Type 6BT8. (5BT8 Designed for Series Receivers.) | | | | | | | | | |



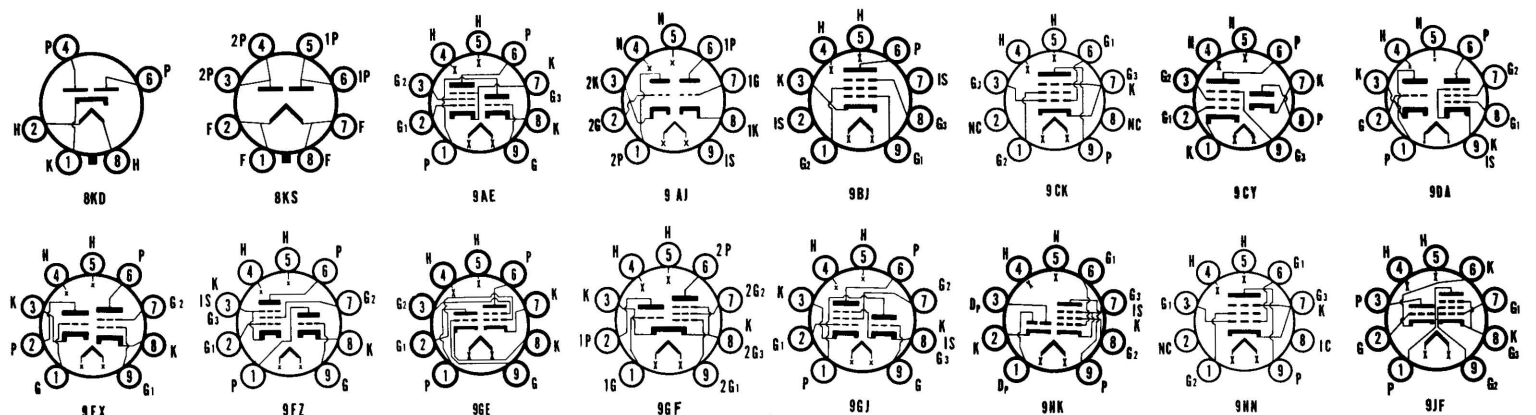
AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Ampli-fication Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|--------------|--------------|---------|-------|------------------------------------|--------------------------------|---|-------------------------------------|--------------|-------------------|--------------------|-------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 5BW8 | T-6½ | Duodi. Pent. | 9HK | 4.7* | 0.600 | R-F or I-F Amplifier | 3.0 | Characteristics Same as Type 6BW8. (5BW8 Designed for Series String Receivers.) | | | | | | | | | |
| 5BZ7 | T-6½ | Duotriode | 9AJ | 5.6* | 0.450 | VHF Amp. | 2.2 | Characteristics Same as Type 6BZ7. (5BZ7 Designed for Series String Receivers.) | | | | | | | | | |
| 5CG4 | T-9 | Duodiode | 5L | 5.0 | 2.0 | F-W Rect. | ... | 350 A.C. Volts Per Plate, RMS, 125 Ma. Max. D.C. Output Current. | | | | | | | | | |
| 5CG8 | T-6½ | Tri. Pentode | 9GF | 4.7* | 0.600 | Osc. Mixer | 1.7 2.3 | Characteristics Same as Type 6CG8. (5CG8 Designed for Series String Receivers.) | | | | | | | | | |
| 5CL8 | T-6½ | Tri. Tetrode | 9FX | 4.7* | 0.600 | Osc. Mixer | 2.97 3.0 | Characteristics Same as Type 6CL8. (5CL8 Designed for Series String Receivers.) | | | | | | | | | |
| 5CL8A | T-6½ | Tri. Tetrode | 9FX | 4.7* | 0.600 | VHF Osc. VHF Amp. | 2.97 3.0 | Characteristics Same as Type 6CL8A. (5CL8A Designed for Series String Receivers.) | | | | | | | | | |
| 5CM6 | T-6½ | Beam Pent. | 9CK | 4.7* | 0.600 | Power Amp | 13.2 | Characteristics Same as Type 6CM6. (5CM6 Designed for Series String Receivers.) | | | | | | | | | |
| 5CM8 | T-6½ | Tri. Pentode | 9FZ | 4.7* | 0.600 | Class A1 Amp | 1.1 2.2 | Characteristics Same as Type 6CM8. (5CM8 Designed for Series String Receivers.) | | | | | | | | | |
| 5CQ8 | T-6½ | Tri. Tetrode | 9GE | 4.7* | 0.600 | VHF Tri. Osc. VHF Pent. A. | 2.79 3.0 | Characteristics Same as Type 6CQ8. (5CQ8 Designed for Series String Receivers.) | | | | | | | | | |
| 5CR8 | T-6½ | Tri. Pentode | 9GJ | 4.7* | 0.600 | Tri. Amp. Pent. Amp. | 2.75 2.3 | Characteristics Same as Type 6CR8. (5CR8 Designed for Series String Receivers.) | | | | | | | | | |
| 5CU4 | T-12 | Duodiode | 8KD | 5.0† | 3.300 | H-W Rect. | ... | 260 Volts A.C. Per Plate, RMS, 385 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5CZ5 | T-6½ | Beam Pent. | 9HN | 4.7* | 0.600 | Vert. Defl. Amplifier | 13.2 | Characteristics Same as Type 6CZ5. (5CZ5 Designed for Series String Receivers.) | | | | | | | | | |
| 5DH8 | T-6½ | Tri. Pentode | 9EG | 5.2* | 0.600 | Vert. Osc. Video Amp. | 2.0 2.2 | 250 125 | 390 [▲] 56 [▲] | ... | 7.3 13.5 | ... | 12000 150000 | 4400 8600 | 53 ... | ... | ... |
| 5DJ4 | T-12 | Duodiode | 8KS | 5.0† | 3.000 | F-W Rect. | ... | 450 A.C. Volts Per Plate, RMS, 275 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 5EA8 | T-6½ | Tri. Pentode | 9AE | 4.7* | 0.600 | Tri. VHF Amp. Pent VHF Amp. | 3.0 3.1 | Characteristics Same as Type 6EA8. (5EA8 Designed for Series String Receivers.) | | | | | | | | | |
| 5EH8 | T-6½ | Tri. Pentode | 9JG | 4.7* | 0.600 | VHF Osc. VHF Amp. | 2.75 3.0 | Characteristics Same as Type 6EH8. (5EH8 Designed for Series String Receivers.) | | | | | | | | | |
| 5ES8 | T-6½ | Duotriode | 9AJ | 5.6* | 0.450 | VHF Amp. | 1.8 | 90 | 1.4 | ... | 15 | ... | 2500 | 12500 | ... | ... | ... |
| 5EU8 | T-6½ | Tri. Pentode | 9JF | 4.7* | 0.600 | VHF Osc. VHF Amp. | 3.1 | Characteristics Same as Type 6EU8. (5EU8 Designed for Series String Receivers.) | | | | | | | | | |
| 5EW6 | T-5½ | Pentode | 7CM | 5.6* | 0.450 | VHF Amp. | 3.1 | Characteristics Same as Type 6EW6. (5EW6 Designed for Series String Receivers.) | | | | | | | | | |
| 5FG7 | T-6½ | Tri. Pentode | 9GF | 4.7* | 0.600 | VHF Osc./ Mixer | 2.5 3.0 | 125 125 | 1.0 1.0 | ... | 13 11 | ... | 5700 180000 | 7500 6000 | 43 ... | ... | ... |
| 5FV8 | T-6½ | Tri. Pentode | 9FA | 4.7* | 0.600 | Vert. Osc. VHF Amp. | 2.0 2.3 | Characteristics Same as Type 6FV8. (5FV8 Designed for Series String Receivers.) | | | | | | | | | |
| 5GH8 | T-6½ | Tri. Pentode | 9AE | 4.7* | 0.600 | Tri. Gen. Pur. Pentode Horiz. Osc. | 2.5 2.5 | Characteristics Same as Type 6GH8. (5GH8 Designed for Series String Receivers.) | | | | | | | | | |
| 5GM6 | T-5½ | Pentode | 7CM | 5.6* | 0.450 | VHF Amp. | 3.1 | Characteristics Same as Type 6GM6. (5GM6 Designed for Series String Receivers.) | | | | | | | | | |
| 5GX6 | T-5½ | Pentode | 7EN | 4.7* | 0.600 | Dual Control | 1.7 | Characteristics Same as Type 6GX6. (5GX6 Designed for Series String Receivers.) | | | | | | | | | |
| 5HG8 | T-6½ | Tri. Pentode | 9MP | 5.3* | 0.450 | VHF Mixer | 2.0 | Characteristics Same as Type 6HG8. (5HG8 Designed for Series String Receivers.) | | | | | | | | | |
| 5J6 | T-5½ | Duotriode | 7BF | 4.7* | 0.600 | R-F Amp. Osc. Amp. | 1.65 | Characteristics Same as Type 6J6. (5J6 Designed for Series String Receivers.) | | | | | | | | | |
| 5JK6 | T-5½ | Pentode | 7CM | 4.9* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JK6. (5JK6 Designed for Series String Receivers.) | | | | | | | | | |
| 5JL6 | T-5½ | Pentode | 7CM | 4.9* | 0.450 | T.V. I-F Amp. | 2.5 | Characteristics Same as Type 6JL6. (5JL6 Designed for Series String Receivers.) | | | | | | | | | |
| 5KD8 | T-6½ | Tri. Pentode | 9AE | 5.6* | 0.450 | VHF Osc.- Mixer | 2.5 3.0 | Characteristics Same as Type 6KD8. (5KD8 Designed for Series String Receivers.) | | | | | | | | | |
| 5KE8 | T-6½ | Tri. Pentode | 9DC | 5.6* | 0.450 | VHF Osc.- Mixer | 2.0 2.0 | Characteristics Same as Type 6KE8. (5KE8 Designed for Series String Receivers.) | | | | | | | | | |

(1) See Frontal Section.
 (2) Design Maximum Values.
 † Maximum Signal.

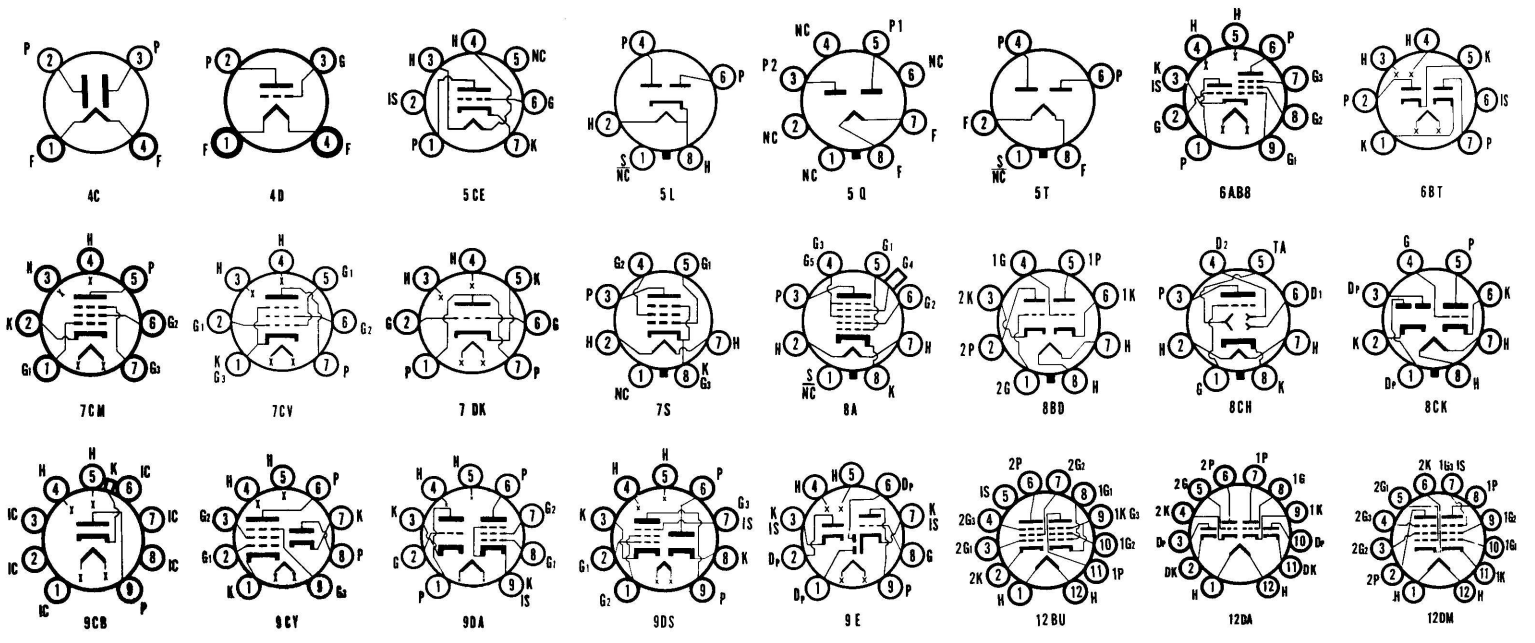
(3) Has Special Mechanical and/or Life Characteristics.
 (4) Average Contact Potential Bias Developed Across Specified Grid Resistor.
 † Filamentary Type.

Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 † Plate to Plate.
 ▲ Conversion Transconductance.
 ■ Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|---------------------------------|---------------------------------|------------------|--------------|---------|-------|--|--------------------------------|---|------------------------------|----------------------|----------------------------|---|--|---------------------------|--|-----------------------------------|--------------------------|--|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 5R4GY 5R4GYA 5R4GYB | ST-16 T-12 | Duodiode | 5T | 5.0 | 2.000 | F-W Rect. | .... | 900 Volts, RMS Per Plate, 150 Ma. D.C. Output. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Choke Input to Filter. |
| 5T4 | Metal | Duodiode | 5T | 5.0 | 2.000 | Rectifier | .... | 450 A.C. Volts Per Plate, RMS, 225 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Choke Input to Filter. |
| 5T8 | T-6½ | Triple Dio. Tri. | 9E | 4.7* | 0.600 | Det. Amp. | 1.1 | Characteristics Same as Type 6T8 (5T8 Designed for Series String Receivers.) | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5U4G | ST-16 | Duodiode | 5T | 5.0 | 3.000 | F-W Rect. | .... | 450 A.C. Volts Per Plate, RMS, 225 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. |
| 5U4GA | T-11 | Duodiode | 5T | 5.0 | 3.000 | F-W Rect. | .... | 450 A.C. Volts Per Plate, RMS, 250 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Peak Current = 900 Ma. Per Plate. |
| 5U4GB | T-12 | Duodiode | 5T | 5.0 | 3.000 | F-W Rect. | .... | 450 A.C. Volts Per Plate RMS, 275 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Peak Current = 1 Amp. Per Plate. |
| 5U4WG(3) | T-12 | Duodiode | 5T | 5.0 | 3.000 | F-W Rect. | .... | Characteristics Same as Type 5U4G. | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5U8 | T-6½ | Tri. Pentode | 9AE | 4.7* | 0.600 | VHF Osc. VHF Mixer | 2.5 3.0 | Characteristics Same as Type 6U8. (5U8 Designed for Series String Receivers.) | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5V3 | T-12 | Duodiode | 5T | 5.0 | 3.800 | F-W Rect. | .... | 425 A.C. Volts Per Plate, RMS, 350 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Choke Input to Filter. |
| 5V3A | T-12 | Duodiode | 5T | 5.0 | 3.000 | F-W Rect. | .... | 425 A.C. Volts Per Plate, RMS, 350 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Choke Input to Filter. |
| 5V4G | ST-14 | Duodiode | 5L | 5.0 | 2.000 | F-W Rect. | .... | 375 A.C. Volts Per Plate, RMS, 175 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. |
| 5V4GA | T-12 | Duodiode | 5L | 5.0 | 2.000 | F-W Rect. | .... | 375 A.C. Volts Per Plate, RMS, 175 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Peak Current = 525 Ma. per Plate. |
| 5V6GT | T-9 | Beam Pent. | 7S | 4.7* | 0.600 | Power Amp. | 13.2 | Characteristics Same as Type 6V6GT. (5V6GT Designed for Series String Receivers.) | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5X8 | T-6½ | Tri. Pentode | 9AK | 4.7* | 0.600 | Oscillator Mixer | 1.7 2.3 | Characteristics Same as Type 6X8. (5X8 Designed for Series String Receivers.) | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5Y3GT 5Y3GA GB-5Y3WGTA(3) | T-9 T-12 | Duodiode | 5T | 5.0 | 2.000 | F-W Rect. | .... | 350 A.C. Volts Per Plate, RMS, 125 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. Choke Input to Filter. |
| 5Y4GT 5Y4GA | T-9 T-12 | Duodiode | 5Q | 5.0 | 2.000 | F-W Rect. | .... | Characteristics Same as Type 5Y3GT. | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 5Z3 | ST-16 | Duodiode | 4C | 5.0 | 3.000 | F-W Rect. | .... | 450 A.C. Volts Per Plate, RMS, 225 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. |
| 5Z4 5Z4GT | Metal T-9 | Duodiode | 5L 5L | 5.0 | 2.000 | F-W Rect. | .... | 350 A.C. Volts Per Plate, RMS, 125 Ma. Output Current. | .... | .... | .... | .... | .... | .... | .... | .... | .... | Condenser Input to Filter. |
| 6A3 | ST-16 | Power Triode | 4D | 6.3 | 1.000 | S.T. A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 16.5 | 250 325 325 | 45.0 68.0 .... | .... .... .... | 60.0 80-147† 80-100† | (Push Pull, Fixed Bias) (Push Pull, Self Bias Resistor 850 Ohms) | 600000 | 5250 | 4.2 | 2500 3000† 5000† | 3200 15000 10000 | .... |
| 6A7 | ST-12 | Heptode | 7C | 6.3 | 0.300 | Converter | 1.1 | Characteristics Same as Type 6ABG, Except Capacitances. | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6A8 6A8G 6A8GT | Metal ST-12 T-9 | Heptode | 8A | 6.3 | 0.300 | Converter | 1.1 | 100 250 | 1.5 3.0 | 50 100 | 1.1 3.5 | 1.3 2.7 | 360000 360000 | 360* 550* | (Ga = 100V.) (Ga = 250 V. thru 20 K. Ohm) | .... | .... | .... |
| 6AB4 | T-5½ | Triode | 5CE | 6.3 | 0.150 | R-F Amp. | 2.75 | 250 | 200 [■] | | 10 | .... | 10900 | 5500 | 60 | .... | .... | .... |
| 6AB7 | Metal | Pentode | 8N | 6.3 | 0.450 | Amplifier | 4.12 | 300 | 3.0 | 200 | 12.5 | 3.2 | 700000 | 5000 | 3500 | .... | .... | .... |
| 6AB8 | T-6½ | Tri. Pentode | 6AB8 | 6.3 | 0.300 | A-F Amp. S.T.A1 Amp. | 1.0 | 100 170 | 2.3 6.3 | 170 | 4 15 | 2.8 | 12500 150000 | 1400 3300 | 17 | 11000 | 1000 | .... |
| 6AC7 | Metal | Pentode | 8N | 6.3 | 0.450 | Video Amp. | 3.3 | 300 | 160 [■] | 150 | 10.0 | 2.5 | 1.0 Meg. | 9000 | 6750 | .... | .... | .... |
| 6AD4 | T-3 | Triode | 8DK | 6.3 | 0.150 | Osc. Amp. | 0.33 | 100 | 820 [■] | | 1.4 | .... | 35000 | 2000 | 70 | .... | .... | .... |
| 6AD6G | T-9 | Electron Ray | 7AG | 6.3 | 0.150 | Indicator | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6AF3 | T-6½ | Diode | 9CB | 6.3 | 1.200 | T.V. Damper | 6.0 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | Maximum Peak Inverse Plate Voltage = 4500 Volts. Maximum D.C. Plate Current = 185 Ma. |
| 6AF4A 6AF4 | T-5½ | Triode | 7DK | 6.3 | 0.225 | UHF Osc. | 2.5 | 100 | Grid Resistor = 10,000 Ohms. | .... | 17. | .... | Plate Resistor = 220 Ohms. Grid Current = 750 μa. | .... | .... | .... | .... | .... |
| 6AF6G | T-9 | Twin Elec. Ray | 7AG | 6.3 | 0.150 | Indicator | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 100 (Ray Control Volts = Approx. 60 for 0° Shadow, Approx. Zero Volts for 100° Shadow.) 135 (Ray Control Volts = Approx. 81 for 0° Shadow, Approx. Zero Volts for 100° Shadow.) |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|---------|---------------------------------|--------------------|--------------|---------|-------|--------------------------------|--------------------------------|--|---|---|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6AF11 | Comp. T-9 | Pentode Duotriode | 12DP | 6.3 | 1.050 | Video Amp. | 5.0 | 250 | 100 [¶] | 150 | 24 | 4.8 | 68000 | 11000 | ... | ... | ... |
| | | | | | | AGC Keyer | 1.1 | 200 | 2.0 | ... | 7.0 | ... | 12400 | 5500 | 68 | ... | ... |
| | | | | | | Sync. Sep. | 2.0 | 200 | 220 [¶] | ... | 9.2 | ... | 9400 | 4400 | 41 | ... | ... |
| 6AG5 | T-5½ | Pentode | 7BD | 6.3 | 0.300 | R-F Amp. | 2.2 | 100 | 180 [¶] | 100 | 4.5 | 1.4 | 600000 | 4500 | ... | ... | ... |
| | | | | | | | 2.75 | 125 | 100 [¶] | 125 | 7.2 | 2.1 | 500000 | 5100 | ... | ... | ... |
| 6AG7 | Metal | Pentode | 8Y | 6.3 | 0.650 | Video Amp. | 9.9 | 300 | 3 | 150 | 30.0 | 7.0 | 130000 | 11000 | ... | 10000 | 3000 |
| 6AG11 | Comp. T-9 | Duodiode Duotriode | 12DA | 6.3 | 0.750 | FM Multiplex Service | 2.0 | 125 | 1.0 | ... | 7.5 | ... | 8500 | 7800 | 66 | ... | ... |
| 6AH4GT | T-9 | Triode | 8EL | 6.3 | 0.750 | Defl. Amp. | 8.25 | 250 | 23 | ... | 30 | ... | 1780 | 4500 | 8 | ... | ... |
| 6AH6 | T-5½ | Pentode | 7BK | 6.3 | 0.450 | Pent. Amp. Tri. Amp. | 3.52 | 300 | 160 [¶] | 150 | 10 | 2.5 | 500000 | 9000 | ... | ... | ... |
| | | | | | | | 150 | 160 [¶] | ... | 12.5 | ... | ... | 3600 | 11000 | 40 | ... | ... |
| 6AJ4 | T-6½ | Triode | 9BX | 6.3 | 0.225 | UHF Amp. | 2.2 | 125 | 68 [¶] | ... | 16 | ... | 4200 | 10000 | 42 | ... | ... |
| 6AJ5 | T-5½ | Pentode | 7BD | 6.3 | 0.175 | R-F Amp. | 1.87 | 28 | 1.0 | 28 | 2.7 | 1.0 | 100000 | 2500 | ... | ... | ... |
| 6AK4 | T-3 | Triode | 8DK | 6.3 | 0.125 | UHF Amp. | 3.3 | 200 | 680 [¶] | ... | 9.5 | ... | 5300 | 3800 | 20 | ... | ... |
| 6AK5 | T-5½ | Pentode | 7BD | 6.3 | 0.175 | VHF Amp. | 1.87 | 120 | 180 [¶] | 120 | 7.5 | 2.5 | 300000 | 5000 | 1700 | ... | ... |
| | | | | | | | 180 | 180 [¶] | 120 | 7.7 | 2.4 | 500000 | 5100 | 3500 | ... | ... | |
| 6AK6 | T-5½ | Power Pent. | 7BK | 6.3 | 0.150 | Power Amp. | 3.0 | 180 | 9.0 | 180 | 15.0 | 2.5 | 200000 | 2300 | ... | 10000 | 1100 |
| 6AL5 | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | Detector | ... | 117 A.C. Volts Per Plate, RMS, 9 Ma. Output Current. | 300 | Ohms Min. Effec. Plate Supply Imped | ... | ... | ... | ... | ... | ... | ... |
| 6AL7GT | T-9 | Electron Ray | 8CH | 6.3 | 0.150 | Indicator | ... | 315 | Grid Volt. for Fluorescent C.O. = -7.0 (App.). | Deflection Sens = 1.0 MM. Per Volt (App.) | ... | ... | ... | ... | ... | ... | ... |
| 6AL11 | Comp. T-9 | Duo. Pentode | 12BU | 6.3 | 0.900 | FM Detector | 1.7 | 150 | 560 [¶] | 100 | 1.3 | 2.1 | 150000 | G1-1000 G3-400 | ... | ... | ... |
| | | | | | | S.T.A1 Amp. | 10 | 250 | 8.0 | 250 | 35 | 2.5 | 100000 | 6500 | ... | 5000 | 4200 |
| 6AM4 | T-6½ | Triode | 9BX | 6.3 | 0.225 | UHF Amp. | 2.0 | 200 | 100 [¶] | ... | 10 | ... | 8700 | 9800 | 85 | ... | ... |
| 6AM8 | T-6½ | Diode Pent. | 9CY | 6.3 | 0.450 | Amplifier | 3.2 | 125 | 56 [¶] | 125 | 12.5 | 3.2 | 0.3 Meg. | 7800 | ... | ... | ... |
| 6AM8A | | | | 6.3* | 0.450 | Detector | ... | ... | Diode Plate Voltage 10 Volts for 50 Ma. Current. (Test Condition Only.) | ... | ... | ... | ... | ... | ... | ... | ... |
| 6AN4 | T-5½ | Triode | 7DK | 6.3 | 0.225 | UHF Amp. | 4.4 | 200 | 100 [¶] | ... | 13 | ... | 7000 | 10000 | 70 | ... | ... |
| 6AN5 | T-5½ | Power Pent. | 7BD | 6.3 | 0.450 | Power Amp. | 4.62 | 120 | 6.0 | 120 | 35.0 | 12.0 | 12500 | 8000 | ... | 2500 | 1300 |
| 6AN6 | T-5½ | Quadruple Di. | 7BJ | 6.3 | 0.200 | Rectifier | ... | 75 Volts RMS Per Plate, 8 Ma. D-C Output Per Plate. | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6AN8 | T-6½ | Tri. Pentode | 9DA | 6.3 | 0.450 | Tri. Amp. | 2.8 | 200 | 6.0 | ... | 13.0 | ... | 5750 | 3300 | 19 | ... | ... |
| 6AN8A | | | | 6.3* | 0.450 | Pent. Amp. | 2.3 | 125 | 56 [¶] | 125 | 12 | 3.8 | .017 Meg. | 7800 | ... | ... | ... |
| 6AQ5 | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.450 | Power Amp. | 13.2 | 250 | 12.5 | 250 | 45.0 | 4.5 | 52000 | 4100 | ... | 5000 | 4500 |
| 6AQ5A | | | | 6.3* | 0.450 | | 180 | 180 | 8.5 | 180 | 29.0 | 3.0 | 58000 | 3700 | ... | 5500 | 2000 |
| 6AQ6 | T-5½ | Duodiode Tri. | 7BT | 6.3 | 0.150 | Det. Amp. | ... | 100 | 1.0 | ... | 0.8 | ... | 61000 | 1150 | 70 | ... | ... |
| | | | | | | | 250 | 3.0 | ... | 1.0 | ... | ... | 58000 | 1200 | 70 | ... | ... |
| 6AQ7GT | T-9 | Duodiode Tri. | 8CK | 6.3 | 0.300 | Det. Amp. | 1.1 | 250 | 2.0 | ... | 2.3 | ... | 44000 | 1600 | 70 | ... | ... |
| 6AQ8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.435 | VHF Amp. | 2.7 | 250 | 2.3 | ... | 10 | ... | ... | 5900 | 57 | ... | ... |
| 6AR5 | T-5½ | Power Pent. | 6CC | 6.3 | 0.400 | Power Amp. | 9.35 | 250 | 16.5 | 250 | 34 | 5.7 | 65000 | 2400 | ... | 7000 | 3.2 |
| | | | | | | | 250 | 18.0 | 250 | 32 | 5.5 | 68000 | 2300 | ... | 7600 | 3.4 | |
| 6AR11 | Comp. T-9 | Duo. Pent. | 12DM | 6.3 | 0.800 | T.V. I-F Amp. | 3.1 | 125 | 56 [¶] | 125 | 11 | 3.5 | 200000 | 10500 | ... | ... | ... |
| 6AS5 | T-5½ | Beam Pent. | 7CV | 6.3 | 0.800 | S.T.A1 Amp. | 6.0 | 150 | 8.5 | 110 | 35-36† | 2-6.5† | ... | 5600 | ... | 4500 | 2200 |
| 6AS6 | T-5½ | Pentode | 7CM | 6.3 | 0.175 | R-F Amp. | 1.87 | 120 | 2.0 | 120 | 5.2 | 3.5 | 110000 | 3200 | ... | ... | ... |
| 6AS7G | ST-16 | Duo-Power Triode | 8BD | 6.3 | 2.500 | Passing Tube for VR Service | 14.3 | 135 | 250 [¶] | ... | 112 | ... | 280 | 7000 | 2 | ... | ... |
| 6AS7GA | T-12 | Duo-Power Triode | 8BD | 6.3 | 2.500 | Passing Tube for VR Service | 14.3 | 135 | 250 [¶] | ... | 125 | ... | 280 | 70000 | 2 | ... | ... |
| 6AS7GYB | T-12 | Duo-Power Triode | 8BD | 6.3 | 2.500 | Passing Tube for VR Service | 14.3 | 135 | 250 [¶] | ... | 125 | ... | 280 | 70000 | 2 | ... | ... |
| | | | | | | | 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6AS8 | T-6½ | Diode Pent. | 9DS | 6.3* | 0.450 | Det. Amp. | 2.75 | 200 | 180 [¶] | 150 | 9.5 | 3.0 | 300000 | 6200 | ... | ... | ... |
| 6AS11 | Comp. T-9 | Duotriode Pentode | 12DP | 6.3 | 1.050 | A-F Amp. Sync. Sep. Video Amp. | 5.0 | 200 | 2.0 | ... | 7.0 | ... | 12400 | 5500 | 68 | ... | ... |
| | | | | | | | 200 | 220 [¶] | ... | 9.2 | ... | ... | 9400 | 4400 | 41 | ... | ... |
| | | | | | | | 200 | 68 [¶] | 125 | 24 | 5.2 | 70000 | 10500 | ... | ... | ... | |

(1) See Frontal Section.

(3) Has Special Mechanical and/or Life Characteristics.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

(2) Design Maximum Values.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

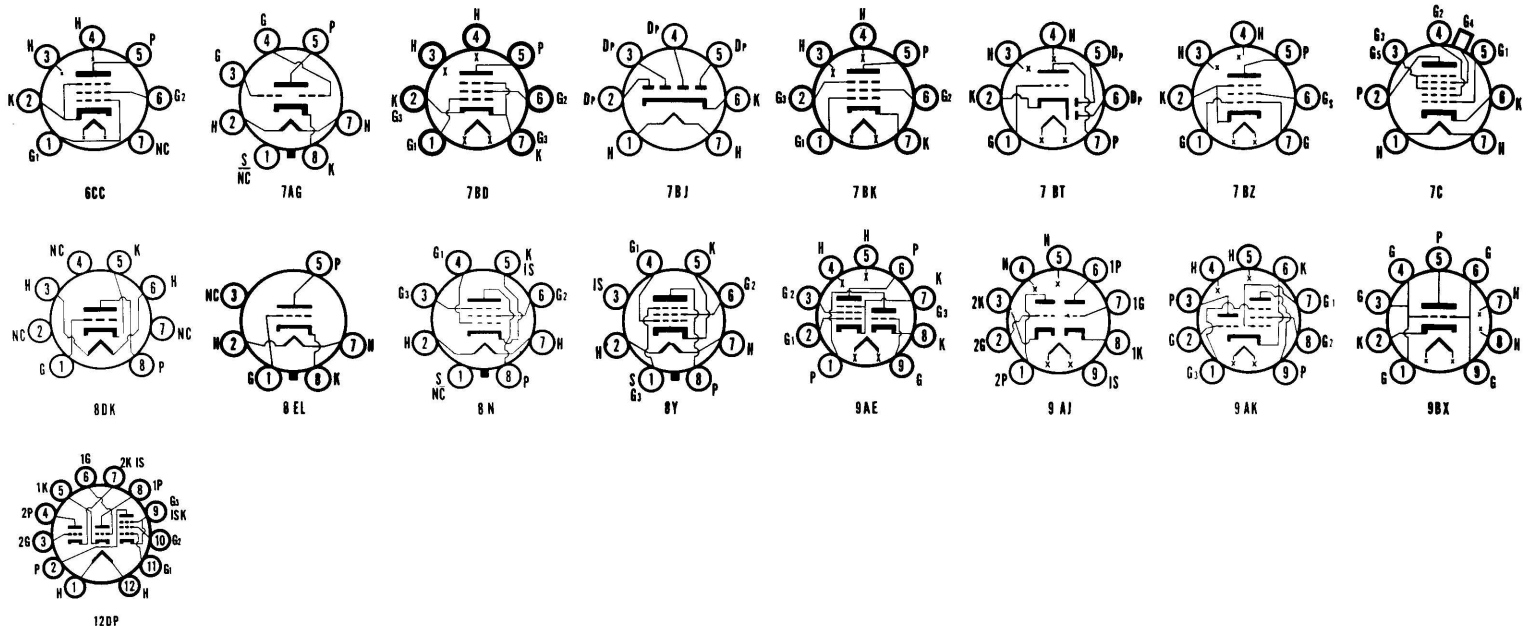
† Maximum Signal.

‡ Filamentary Type.

▲ Conversion Transconductance.

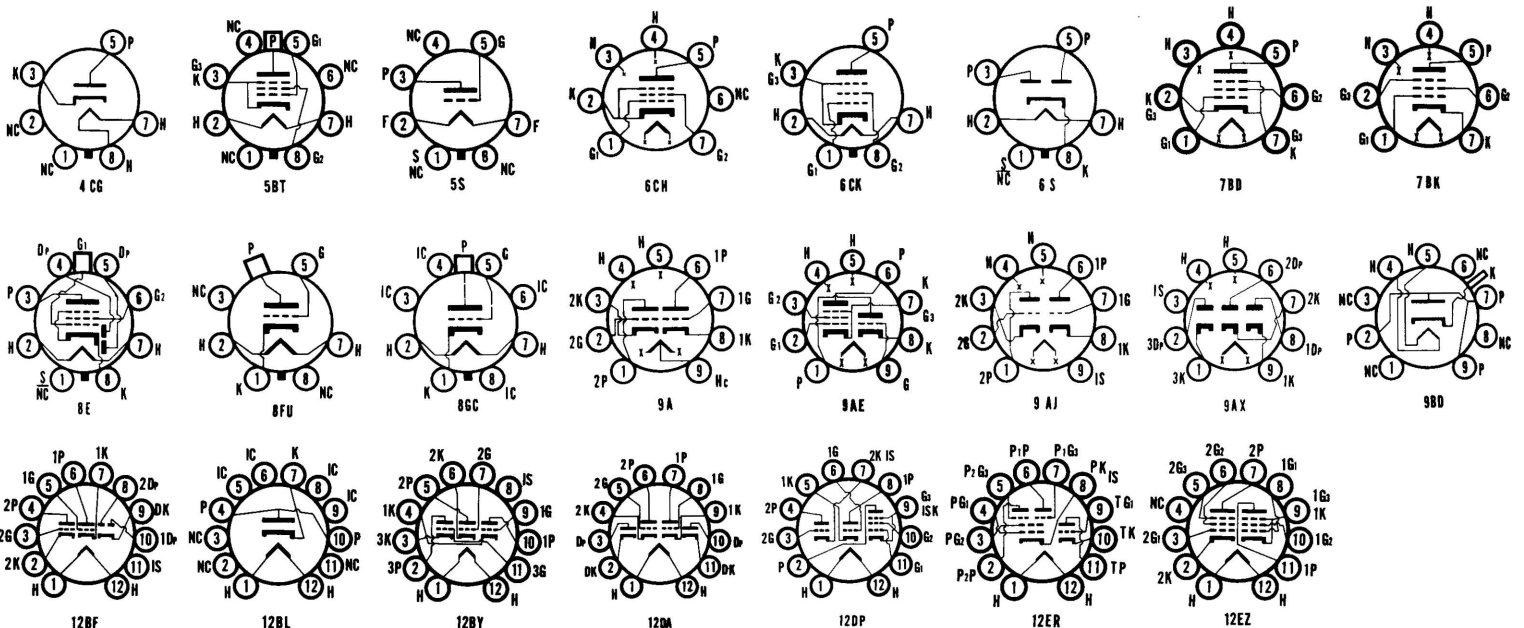
¶ Plate to Plate.

■ Cathode Resistor (ohms).



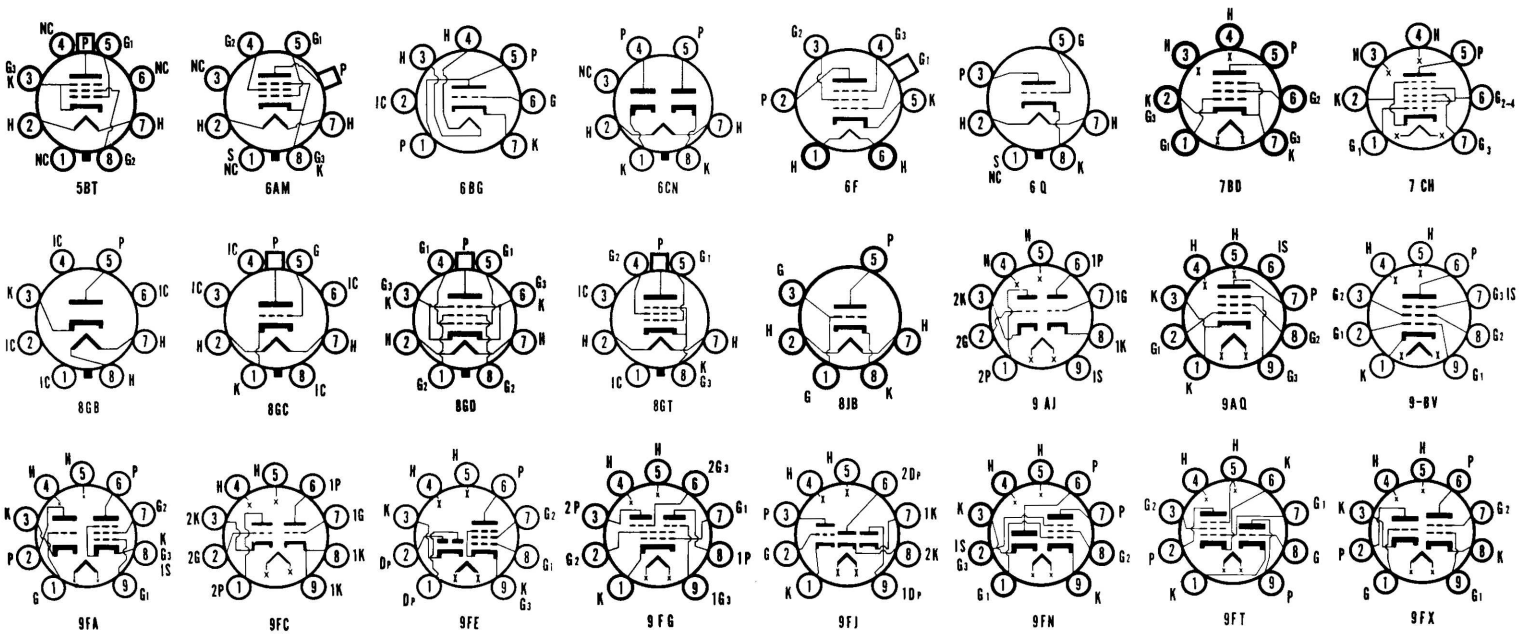
SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--|---------------------------------|--------------------|--------------|---------------|-----------------|-------------------------------|--------------------------------|---|---|-----------------------|----------------------|-----------------------|--------------------------------|--------------------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6AT6 | T-5½ | Duodiode Tri. | 7BT | 6.3 | 0.300 | Det. Amp. | 0.55 | 100 250 | 1.0 3.0 | ..... | 0.8 1.0 | ... | 54000 58000 | 1300 1200 | 70 70 | ..... | ..... |
| 6AT8 6AT8A | T-6½ | Tri. Pentode | 9DW | 6.3 6.3* | 0.450 0.450 | VHF Osc. VHF Amp. | 1.7 2.3 | 125 125 | 1.0 1.0 | 125 | 12 9 | 2.2 | 6000 300000 | 6500 5500 | 40 ..... | ..... | ..... |
| 6AU4GTA | T-9 | Diode | 4CG | 6.3 | 1.800 | T.V. Damper | 6.6 | P.I.V. = 4500 Volts Max. D.C. Plate Current = 210 Ma. Max. | | | | | | | | | |
| 6AU5GT | T-9 | Beam Pent. | 6CK | 6.3 | 1.250 | Horiz. Defl. Amp. | 11 | Max. Peak Positive Pulse Plate Voltage = 5500 Volts. Max. D.C. Plate Current = 110 Ma. | | | | | | | | | |
| 6AU6 6AU6A GB-6AU6WB(3) | T-5½ | Pentode | 7BK | 6.3 6.3* | 0.300 0.300 | R-F Amp. | 3.3 | 100 250 250 | 150 ^m 100 ^m 68 ^m | 100 125 150 | 5.0 7.6 10.6 | 2.1 3.0 4.3 | 500000 1.5 Meg. 1.0 Meg. | 3900 4500 5200 | ..... | ..... | ..... |
| 6AU8 | T-6½ | Tri. Pentode | 9DX | 6.3* | 0.600 | Tri. Amp. Pent. Video Amp. | 2.75 3.3 | 150 200 250 | 150 ^m 82 ^m 82 ^m | 150 | 9.5 17.0 | 3.6 | 7200 140000 | 5600 8000 | 40 ..... | ..... | ..... |
| 6AU8A | T-6½ | Tri. Pentode | 9DX | 6.3* | 0.600 | Tri. Amp. Pent. Video Amp. | 2.75 3.3 | 150 200 | 150 ^m 82 ^m | 125 | 9.5 17 | 3.4 | 8100 100000 | 5300 8000 | 40 ..... | ..... | ..... |
| 6AV5GA | T-11 or T-12 | Beam Pentode | 6CK | 6.3 | 1.200 | Horizontal Defl. Amp. | .12 | 250 | 22.5 | 150 | 55 | 2.1 | 20000 | 5500 | 4.3 | When Eb = 150 | |
| 6AV6 | T-5½ | Duodiode Tri. | 7BT | 6.3 | 0.300 | Det. Amp. | 0.55 | 250 100 | 2.0 1.0 | ..... | 1.2 0.5 | ..... | 62500 80000 | 1600 1250 | 100 ..... | ..... | ..... |
| 6AV11 | Comp. T-9 | Triple Triode | 12BY | 6.3 | 0.600 | Gen. Purpose | 6.0 | 100 250 | 0 8.5 | ..... | 11.8 10.5 | ..... | 6500 7700 | 3100 2200 | 20 17 | ..... | ..... |
| 6AW8 6AW8A | T-6½ | Tri. Pentode | 9DX | 6.3* | 0.600 | Tri. Amp. Pent. Video Amp. | 1.1 3.75 | 200 150 | 2.0 150 ^m | 150 | 4.0 15 | 3.5 | 17500 200000 | 4000 9500 | 70 ..... | ..... | ..... |
| 6AX3 | Comp. T-9 | Diode | 12BL | 6.3 | 1.200 | T.V. Damper | 5.3 | Maximum Peak Inverse Plate Voltage = 5000 Volts, Maximum D.C. Output Current = 165 Ma. | | | | | | | | | |
| 6AX4GT | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 5.28 | P.I.V. = 4400 Volts Max., D.C. Plate Current = 125 Ma. Max. | | | | | | | | | |
| 6AX4GTA | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 5.28 | P.I.V. = 4400 Volts Max., D.C. Plate Current = 165 Ma. | | | | | | | | | |
| 6AX5GT | T-9 | Duodiode | 6S | 6.3 | 1.200 | F-W Rect. | ..... | 350 A.C. Volts Per Plate, R.M.S., 125 Ma. D.C. Output. Condenser Input to Filter. 450 A.C. Volts Per Plate, R.M.S., 125 Ma. D.C. Output. Choke Input to Filter. | | | | | | | | | |
| 6AX7 | T-6½ | Duotriode | 9A | 6.3/ 3.15* | 0.300/ 0.600 | A-F Amp. | 1.1 | Characteristics Same as Type 12AX7. (6AX7 Designed for Series String Receivers.) | | | | | | | | | |
| 6AX8 | T-6½ | Tri. Pentode | 9AE | 6.3 | 0.450 | Sync. Sep. Video Amp. | 2.97 3.0 | 150 250 | 56 ^m 120 ^m | 110 | 18 10 | 3.5 | 5000 400000 | 8500 4800 | 40 ..... | ..... | ..... |
| 6AY3 6AY3A | Novar T-9 | Diode | 9HP | 6.3 | 1.200 | T.V. Damper | 6.5 | Maximum Peak Inverse Plate Voltage = 5000 Volts, Maximum D.C. Plate Current = 175 Ma. | | | | | | | | | |
| 6AY11 | Comp. T-9 | Duodiode Duotriode | 12DA | 6.3 | 0.690 | T-FM Det. P-AF Amp. | 1.0 | 250 2 | 1.2 | ..... | ..... ..... | ..... | 52700 | 1900 | 100 | ..... | ..... |
| 6AZ5 | T-3 | Duodiode | 8DF | 6.3 | 0.150 | Rectifier | ..... | Plate Supply Voltage = 50 Volts, RMS, Each Plate. D.C. Output Current = 4 Ma. Each Plate. Capacitor Input to Filter. | | | | | | | | | |
| 6AZ8 | T-6½ | Tri. Pentode | 9ED | 6.3 | 0.450 | Sync. Sep. Video Amp. | 2.86 2.2 | 200 200 | 6 180 ^m | 150 | 13.0 9.5 | 3.0 | 5750 300000 | 3300 6000 | 19 ..... | ..... | ..... |
| 6B3 | T-6½ | Diode | 9BD | 6.3 | 1.200 | T.V. Damper | ..... | Maximum Peak Inverse Plate Voltage = 4400 Volts. Maximum D.C. Plate Current = 150 Ma. | | | | | | | | | |
| 6B4G | ST-16 | Triode | 5S | 6.3 | 1.000 | Power Amp. | 16.5 | Characteristics Same as Type 6A3. | | | | | | | | | |
| 6B8 | Metal | Duodi. Pent. | 8E | 6.3 | 0.300 | Det. Amp. | 3.3 | Characteristics Same as Type 6B7, Except Capacitances. | | | | | | | | | |
| 6B10 | Comp. T-9 | Duodiode | 12BF | 6.3* | 0.600 | Horiz. Phase Det./Osc. | 2.5 | 250 | 9.5 | ..... | 7 | ..... | 9750 | 1850 | 18 | ..... | ..... |
| 6BA3 | T-9 | Diode | 9HP | 6.3 | 1.200 | T.V. Damper | 5.3 | Maximum Peak Inverse Plate Voltage = 5000 Volts. Maximum D.C. Output Current = 165 Ma. | | | | | | | | | |
| 6BA5 | T-3 | Pentode | 8DY | 6.3 | 0.150 | A-F Amp. | 0.77 | 100 | 270 ^m | 100 | 5.5 | 2.0 | 175000 | 2150 | ..... | ..... | ..... |
| 6BA6 | T-5½ | Pentode | 7BK | 6.3 | 0.300 | R-F Amp. | 3.3 | 100 250 | 68 ^m 68 ^m | 100 100 | 10.8 11.0 | 4.4 4.2 | 250000 1.0 Meg. | 4300 4400 | ..... | ..... | ..... |
| 6BA7 | T-6½ | Heptode | 8CT | 6.3 | 0.300 | Converter | 2.2 | 100 250 | 1.0 1.0 | 100 100 | 3.6 3.8 | 10.2 10.0 | 500000 1 Meg. | 900 ^a 950 ^a | ..... | ..... | ..... |
| 6BA8 6BA8A | T-6½ | Tri. Pentode | 9DX | 6.3* | 0.600 | Tri. Amp. Pent. Video Amp. | 2.2 3.57 | 200 200 | 8.0 180 ^m | 150 | 8.0 13.0 | 3.5 | 6700 400000 | 2700 9000 | 18 ..... | ..... | ..... |
| 6BA8 and 6BA8A are Similar Except for Plate Knee Characteristics of 6BA8A. | | | | | | | | | | | | | | | | | |



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts? | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--------------------|---------------------------------|-----------------------|--------------|-------------|----------------|--|--------------------|---|--|----------------------|------------------------|-----------------------|---|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6BK7A 6BK7B | T-6½ | Duotriode | 9AJ | 6.3 6.3* | 0.450 0.450 | VHF Amp. | 2.97 | 150 | 56 [■] | | 18.0 | ... | 4600 | 9300 | 43 | .... | .... |
| 6BL4 | T-12 | Diode | 8GB | 6.3 | 3.000 | T.V. Damper | 8.8 | P.I.V. = 4500 Volts Abs. Max. D.C. Plate Current = 200 Ma. Max. | | | | | | | | | |
| 6BL7GT 6BL7GTA | T-9 | Duotriode | 8BD | 6.3 | 1.500 | Vert. Osc. Vert. Defl. Amp. | 11 13.2 | Max. Peak Positive Pulse Plate Voltage = 2000 Volts. Max. D.C. Cathode Current = 60 Ma. 6BL7GT and 6BL7GTA are Similar Except for Plate Knee Characteristics of 6BL7GTA. | | | | | | | | | |
| 6BL8 | T-6½ | Tri. Pentode | 9DC | 6.3 | 0.450 | VHF Osc. VHF Amp. | 1.65 1.87 | 100 170 | 2.0 2.0 | 170 | 14.0 10.0 | 2.8 | 400000 | 5000 6200 | 20 | .... | .... |
| 6BM8 | T-6½ | Tri. Pentode | 9EX | 6.3 | 0.780 | Vert. Vert. Defl. Amp. Tri. Vert. Osc. | 5.5 1.1 | Max. Peak Positive Pulse Plate Voltage = 2500 Volts. Max. D.C. Cathode Current = 50 Ma. 200 16.0 200 35.0 7.0 100 0 200 3.5 | | | | | | | | | |
| 6BN4A | T-5½ | Triode | 7EG | 6.3 | 0.200 | VHF Amp. | 2.42 | 150 | 220 [■] | | 9 | ... | 8000 | 5400 | 43 | .... | .... |
| 6BN6 | T-5½ | Gated Beam | 7DF | 6.3 | 0.300 | Quad. F. M. Det. | .... | 65 | 1.3 | 60 | 0.23 | 5.0 | Grid No. 1 Signal Voltage (RMS) = 30 Volts. Grid No. 3 Signal Voltage (RMS) = 4 Volts. | | | | |
| 6BN8 | T-6½ | Duodiode Tri. | 9ER | 6.3* | 0.600 | Det. Amp. | 1.65 | 100 250 | 1 3 | .... .... | 1.5 1.6 | ... | 21000 28000 | 3500 2500 | 75 70 | .... | .... |
| 6BQ5 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | S.T. A1 Amp. P.P. AB1 Amp. P.P. AB1 Amp. | 13.2 | 250 250 300 | 135 [■] 130 [■] 130 [■] | 250 250 300 | 48 62-75† 72-92† | 5.5 7-15† 8-22† | 38000 | 11300 | .... | 5200 8000† 8000† | 5700 11000 17000 |
| 6BQ6GTA 6BQ6GTB | T-9 T-9 | Beam Pent. | 6AM | 6.3 | 1.200 | Horiz. Defl. Amp. | 12.1 | 6000 Maximum Peak Positive Plate Volts. 110 Ma. Maximum Cathode Current. 250 22.5 150 57 2.1 14500 5900 | | | | | | | | | |
| 6BQ7A | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.2 | 150 | 220 [■] | | 9 | ... | 5800 | 6000 | 38 | .... | .... |
| 6BR3 | T-6½ | Diode | 9CB | 6.3 | 1.200 | T.V. Damper | 6.5 | Max. Peak Inverse Plate Voltage = 5500 Volts. Max. D.C. Plate Current = 200 Ma. | | | | | | | | | |
| 6BR8A | T-6½ | Triode Pentode | 9FA | 6.3* | 0.450 | Oscillator Mixer | 2.97 3.0 | 150 250 | 56 [■] 68 [■] | 110 | 18 10 | 3.5 | 5000 400000 | 8500 5200 | 40 | .... | .... |
| 6BS3 | Novar T-9 | Diode | 9HP | 6.3 | 1.200 | T.V. Damper | 6.0 | Max. Peak Inverse Plate Voltage = 5000 Volts. Max. D.C. Plate Current = 200 Ma. | | | | | | | | | |
| 6BS8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.2 | 150 | 220 [■] | | 10 | ... | 5000 | 7200 | 36 | .... | .... |
| 6BT8 | T-6½ | Duodi. Pent. | 9FE | 6.3 | 0.450 | Amp. Det. | 2.2 | 200 | 180 [■] | 150 | 9.5 | 2.8 | 300000 | 6200 | .... | .... | .... |
| 6BU4 | T-12 | Triode | 8GC | 6.3 | 0.450 | H.V. Reg. | 27.5 | 25000 | 8.4 | .... | 1.0 | ... | 8.2 Meg. | 185 | 1515 | .... | .... |
| 6BU5 | T-11 | Beam Power Pentode | 8FP | 6.3 | 0.150 | H.V. Reg. | 20 | 20K 20K | 3.4 2.4 | 70 70 | 0.6 1.0 | 0.5 | .... | .... | .... | .... | .... |
| 6BU8 6BU8A | T-6½ | Duo Pentode | 9FG | 6.3 | 0.300 | Sync. Sep. | 1.1 | 100 | 0 Grid 1 | 67.5 | .... | .... | 180 Gr. 3 | Grid No. 3 Volts = -4.5 | .... | .... | .... |
| 6BV8 | T-6½ | Duodiode Tri. | 9FJ | 6.3* | 0.600 | Det. Amp. | 2.7 | 200 | 330 [■] | | 11.0 | ... | 5900 | 5600 | 33 | .... | .... |
| 6BW4 | T-6½ | Duodiode | 9DJ | 6.3 | 0.900 | F-W Rect. | .... | 325 A.C. Volts Per Plate, RMS, 100 Ma. Output Current. Capacitor Input to Filter. 450 A.C. Volts Per Plate, RMS, 100 Ma. Output Current. Choke Input to Filter. | | | | | | | | | |
| 6BW8 | T-6½ | Duodi. Pent. | 9HK | 6.3* | 0.450 | R-F or I-F Amplifier | 3.0 | 250 | 68 [■] | 110 | 10.0 | 3.5 | 250000 | 5200 | .... | .... | .... |
| 6BX7GT | T-9 | Duotriode | 8BD | 6.3 | 1.500 | Vert. Amp. Vert. Osc. | 11 13.2 | Max. Peak Positive Pulse Plate Volts = 2000 Volts. Max. D.C. Cathode Current = 60 Ma. 250 390 [■] 42 1300 7600 10 | | | | | | | | | |
| 6BX6 | T-6½ | Pentode | 9AQ | 6.3 | 0.300 | R-F/I-F Amp. | 2.75 | 170 | 2.0 | 170 | 10 | 2.5 | 400000 | 7200 | .... | .... | .... |
| 6BX8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.0 | 65 | 1.0 | .... | 9 | ... | 6700 | 25 | .... | .... | .... |
| 6BY5G | ST-14 | Duodiode | 6CN | 6.3 | 1.600 | F-W Rect. | .... | 375 A.C. Volts Per Plate, R.M.S., 175 Ma. D.C. Output Current. Condenser Input to Filter. | | | | | | | | | |
| 6BY5GA | T-12 | Duodiode | 6CN | 6.3 | 1.600 | T.V. Damper | .... | P.I.V. = 3000 Volts Abs. Max. D.C. Plate Current = 175 Ma. Max. Each Plate. | | | | | | | | | |
| 6BY6 | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Sync. Sep. | 2.2 | 10 | G1&2=0 | 25 | 1.4 | 3.5 | Plate Current = 50μ Amps. When Grid 3 V. = 2.5 | | | | |
| 6BY8 | T-6½ | Diode Pent. | 9FN | 6.3* | 0.600 | Det. Amp. | 3.3 | 100 | 150 [■] | 100 | 5.0 | 2.1 | 500000 | 3900 | .... | .... | .... |
| 6BZ6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | R-F Amp. | 2.3 | 125 | 56 [■] | 125 | 14 | 3.6 | 260000 | 8000 | Semi-Remote Cutoff. | | |
| 6BZ7 | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.2 | 150 | 220 [■] | | 10 | ... | 5300 | 6800 | 36 | .... | .... |
| 6BZ8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.42 | 125 | 100 [■] | | 10 | ... | 5600 | 8000 | 45 | .... | .... |
| 6C4 | T-5½ | Triode | 6BG | 6.3 | 0.150 | R-F Osc. R-F Amp. | 5.5 3.85 | 300 250 100 | 27 8.5 0 | .... .... .... | 25 10.5 11.8 | .... .... .... | 7700 6250 | 2200 3100 | 17 19.5 | .... | Class C 5500 |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|---------------|---------------------------------|---------------|--------------|-------------|----------------|--|--------------------------------|---|--------------------------|--------------|-------------------|--------------------|--------------------|--------------------------|----------------------|--|--------------------------|------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 6C5 6C5GT | Metal T-9 | Triode | 6Q | 6.3 | 0.300 | Amplifier | 2.75 | 250 | 8.0 | .... | 8.0 | ... | 10000 | 2000 | 20 | .... | .... |  |
| 6C6 | ST-12 | Pentode | 6F | 6.3 | 0.300 | Amplifier | .825 | 100 250 | 3.0 3.0 | 100 100 | 2.0 2.0 | 0.5 0.5 | 1 Meg. 1 Meg. > | 1185 1225 | .... | .... | .... |  |
| 6C8G | ST-12 | Duotriode | 8G | 6.3 | 0.300 | Amplifier Inverter | 1.1 | 250 250 | 4.5 3.0 | .... | 3.2 .... | .... | 22500 | 1600 | 36 | (One Section) Output Volts 80, RMS for Inverter Service. | | |
| 6C9 | T-6½ | Duotetrode | 10F | 6.3 | 0.400 | VHF Amp. | 2.5 | 125 | 1.0 | 80 | 10 | 1.5 | 100000 | 8000 | .... | .... | .... |  |
| 6C10 | Comp. T-9 | Triple Triode | 12BQ | 6.3* | 0.600 | A-F Amp. | 1.0 | Characteristics Same as Type 12AX7. | | | | | | | | | | |
| 6CA4 | T-6½ | Duodiode | 9M | 6.3 | 1.000 | F-W Rect. | .... | 350 A.C. Volts Per Plate, RMS, 150 Ma. Output Current. | | | | | | | | | | |
| 6CA5 | T-5½ | Beam Pent. | 7CV | 6.3 | 1.200 | Power Amp. | 5.5 | 110 125 | 4.0 4.5 | 110 125 | 32 37 | 3.5 4.0 | 16000 15000 | 8100 9200 | .... | 3500 4500 | 1100 1500 | |
| 6CA7 | T-10 (SP) | Beam Pent. | 8ET | 6.3 | 1.500 | Power Amp. | 27.5 | Characteristics Same as Type EL34. | | | | | | | | | | |
| 6CB5A | T-12 | Beam Pent. | 8GD | 6.3 | 2.500 | Horiz. Defl. Amp. | 25 | 175 | 30 | 175 | 90 | 6.0 | 5000 | 8800 | .... | .... | .... |  |
| 6CB6A | T-5½ | Pentode | 7CM | 6.3* | 0.300 | VHF Amp. | 2.3 | 125 | 56 [¶] | 125 | 13 | 3.7 | 280000 | 8000 | .... | .... | .... |  |
| 6CD6G | ST-16 | Beam Pent. | 5BT | 6.3 | 2.500 | Horiz. Defl. Amp. | 16.5 | Maximum Peak Positive Plate Voltage = 6600 Volts. Maximum D.C. Plate Current = 200 Ma. | | | | | | | | | | |
| 6CD6GA | T-12 | Beam Pent. | 5BT | 6.3 | 2.500 | Horiz. Defl. Amp. | 22 | 175 | 30 | 175 | 75 | 5.5 | 7200 | 7700 | .... | .... | .... |  |
| 6CE5 | T-5½ | Pentode | 7BD | 6.3 | 0.300 | VHF Amp. | 2.2 | 125 | 1.0 | 125 | 111 | 3.7 | 1.0 Meg. | 7600 | .... | .... | .... |  |
| 6CF6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.3 | 125 | 56 [¶] | 125 | 12.5 | 3.7 | 0.3 Meg. | 7800 | .... | .... | .... |  |
| 6CG7 | T-6½ | Duotriode | 9AJ | 6.3* | 0.600 | Amplifier | 3.85 | Characteristics Same as Type 6SN7GT. (6CG7 Designed for Series String Receivers.) | | | | | | | | | | |
| 6CG8 6CG8A | T-6½ | Tri. Pentode | 9GF | 6.3 6.3* | 0.450 0.450 | Osc. Mixer | 1.7 2.3 | 125 125 | 1.0 1.0 | 125 | 12 9 | 2.2 | 6000 .3 Meg. | 6500 5500 | 40 | .... | .... |  |
| 6CH7 | T-6½ | Duotriode | 9FC | 6.3 | 0.400 | Amplifier | 2.2 | 150 | 220 [¶] | | 10 | .... | 5300 | 6800 | 36 | .... | .... |  |
| 6CH8 | T-6½ | Tri. Pentode | 9FT | 6.3 | 0.450 | Tri. Amp. Pent. Amp. | 2.82 2.2 | 200 200 | 180 [¶] | 150 | 13.0 9.5 | 2.8 | 5750 300000 | 3300 6200 | 19 | .... | .... |  |
| 6CK4 | T-9 | Power Triode | 8JB | 6.3 | 1.250 | Vert. Defl. Amp. | 12 | 250 | 28 | .... | 40 | .... | 1200 | 5500 | 6.6 | Max. Peak Positive Pulse Plate Voltage = 2000 Volts. Max. D.C. Cathode Current = 100 Ma. | | |
| 6CL5 | T-12 | Beam Pent. | 8GD | 6.3 | 2.500 | Horiz. Defl. Amp. | 27.5 | 7000 Maximum Peak Positive Pulse Plate Volts. 25 Watts Maximum Plate Dissipation. 4.0 Watts Maximum Screen Dissipation. | | | | | | | | | | |
| 6CL6 | T-6½ | Power Pent. | 9BV | 6.3 | 0.650 | Video Amp. | 8.25 | 250 | 3 | 150 | 30 | 7 | 0.15 Meg. | 11000 | .... | .... | .... |  |
| 6CL8A | T-6½ | Tri. Tetrode | 9FX | 6.3* | 0.450 | VHF Osc. VHF Amp. | 2.97 3.0 | 125 125 | 1.0 1.0 | 125 | 14 12 | 4 | 5000 200000 | 8000 6500 | 40 | .... | .... |  |
| 6CM4 | T-6½ | Triode | 9KG | 6.3 | 0.170 | VHF Amp. | 2.2 | 175 | 1.5 | .... | 12 | .... | .... | 14000 | 68 | .... | .... |  |
| 6CM5 | T-9 | Beam Pent. | 8GT | 6.3 | 1.250 | Horiz. Defl. Amp. | 11 | 100 | 7.7 | 100 | 100 | 7.0 | 5300 | 14000 | .... | .... | .... |  |
| 6CM6 | T-6½ | Beam Pent. | 9CK | 6.3 | 0.450 | Vert. Defl. Amp. Power Amp. | 8.8 13.2 | 250 180 | 12.5 8.5 | 250 180 | 45 29.0 | 4.5 3.0 | 50000 50000 | 4100 3700 | .... | 5500 5000 | 2000 4500 | |
| 6CM7 | T-6½ | Duotriode | 9ES | 6.3* | 0.600 | Sect. 2 Vert. Defl. Amp. Sect. 1 Vert. Osc. | 6.0 1.37 | 250 200 | 8.0 7.0 | .... .... | 20.0 5.0 | .... | 4100 11000 | 4400 2000 | 18 20 | .... | .... |  |
| 6CM8 | T-6½ | Tri. Pentode | 9FZ | 6.3* | 0.450 | Class A1 Amp. | 1.1 2.2 | 250 200 | 2 180 [¶] | 150 | | 1.8 9.5 | 2.8 | 50000 600000 | 2000 6200 | 100 | | |

(1) See Frontal Section.

(2) Design Maximum Values.

† Maximum Signal.

(3) Has Special Mechanical and/or Life Characteristics.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

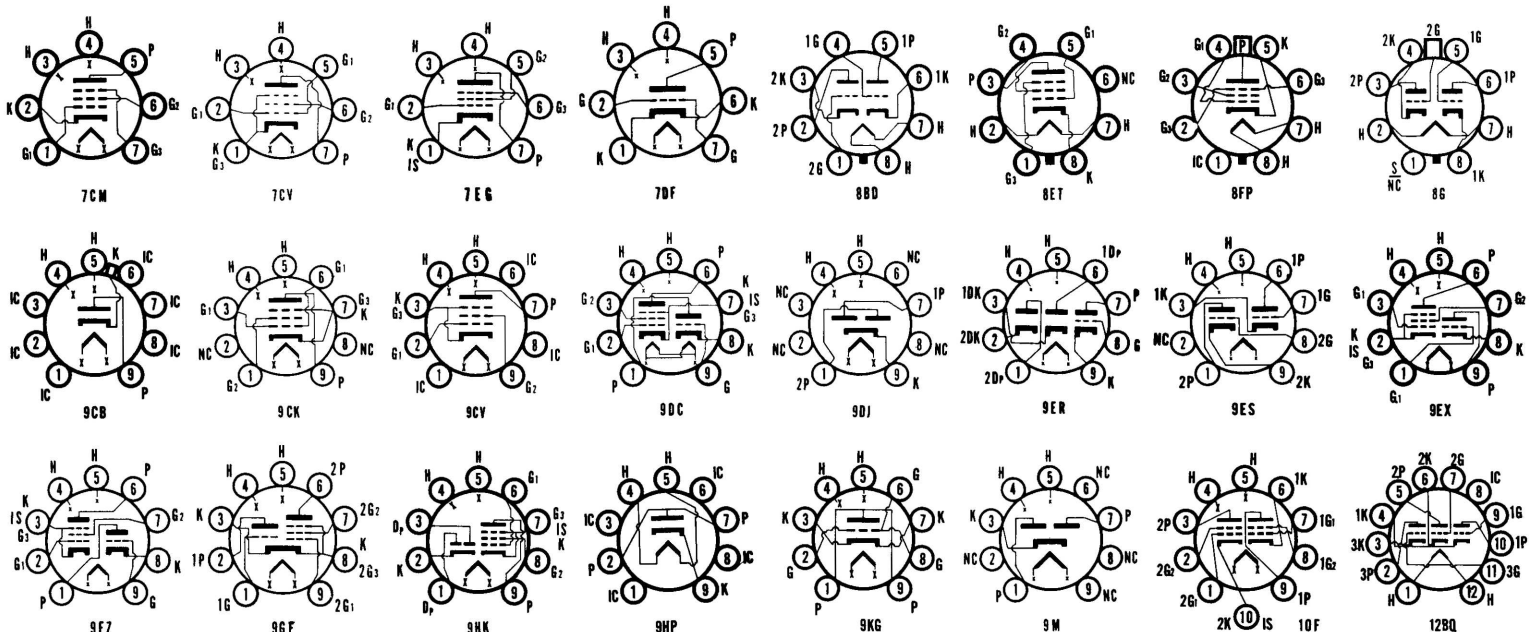
♦ Filamentary Type.

^ Conversion Transconductance.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

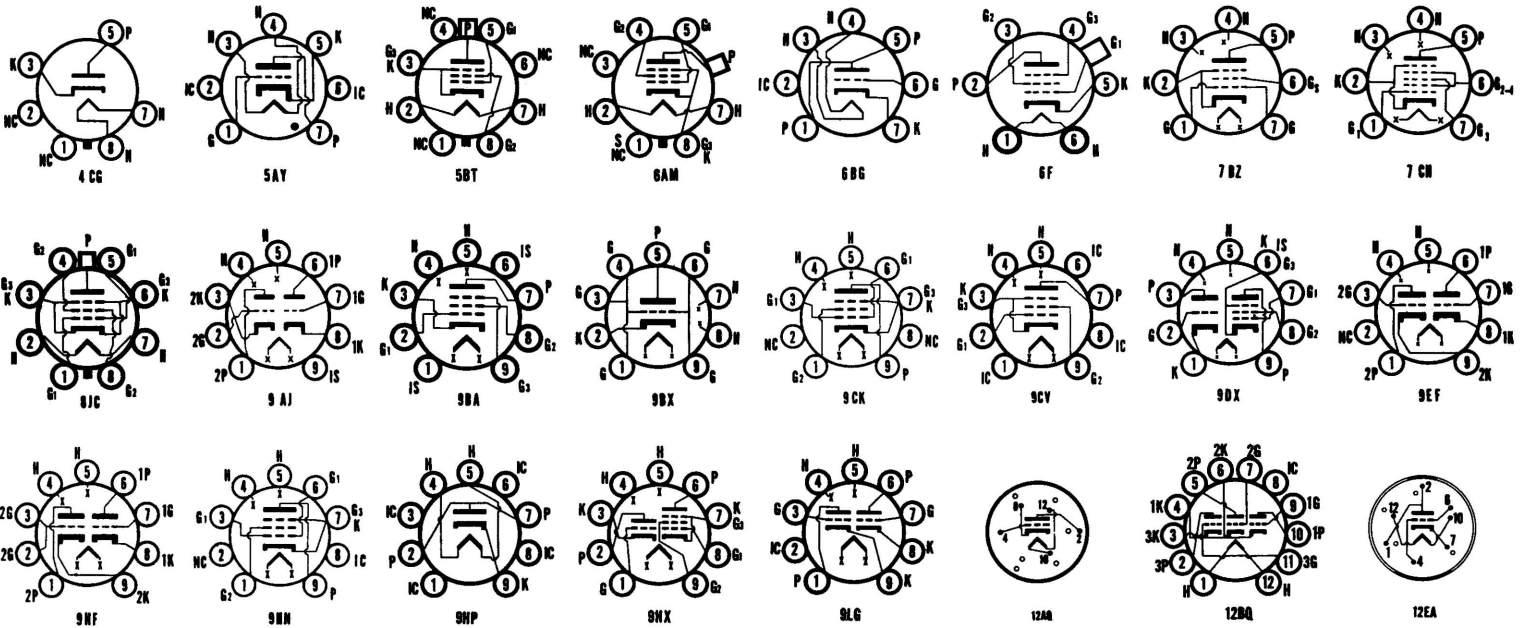
‡ Plate to Plate.

■ Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|----------------------|--------------|---------|-------|--|--------------------------------|---|-------------------------------------|---|-------------------|--------------------|----------------------|--------------------------|--|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6CN7 | T-6½ | Duodiode Tri. | 9EN | 6.3 | 0.300 | Det. Amp. | 1.1 | 100 250 | 1.0 3.0 | ... | 0.8 1.0 | ... | 54000 58000 | 1300 1200 | 70 70 | ... | ... |
| 6CQ4 | T-9 | Diode | 4CG | 6.3 | 1.600 | T.V. Damper | 6.5 | Max. Peak Inverse Plate Voltage = 5500 Volts. Max. D.C. Plate Current = 190 Ma. | | | | | | | | | |
| 6CQ8 | T-6½ | Tri. Tetrode | 9GE | 6.3* | 0.450 | VHF Tri. Osc. VHF Tet. Amp. | 2.97 3.0 | 125 125 | 56 ^m 1.0 | ... | 15 12 | ... | 5000 140000 | 8000 5800 | 40 | ... | ... |
| 6CR4 | T-6½ | Triode | 9BX | 6.3 | 0.370 | UHF Amp. | ... | 130 | 1.0 | ... | 16 | ... | ... | 15000 | 60 | ... | ... |
| 6CR6 | T-5½ | Diode Pent. | 7EA | 6.3 | 0.300 | Det.-Audio Amplifier | 2.75 | 250 | 2.0 | 100 | 9.5 | 3.0 | 200000 | 1950 | ... | ... | ... |
| 6CR8 | T-6½ | Tri. Pentode | 9GJ | 6.3* | 0.450 | Tri. Amp. Pent. Amp. | 2.75 2.3 | 125 125 | 2.0 56 ^m | ... | 12.0 13.0 | ... | 5500 300000 | 4000 7700 | 22 | ... | ... |
| 6CS6 | T-5½ | Dual Control Heptode | 7CH | 6.3 | 0.300 | Sync. Sep. | 1.1 | 100 | 0 Grid 1 -1 Grid 1 | 30 30 | 0.8 1.0 | 5.5 1.3 | 0.7 Meg. 1.0 Meg. | 1500 Gr. 3 1100 Gr. 1 | Grid No. 3 Volts = -1.0 Grid No. 3 Volts = 0. | ... | ... |
| 6CS7 | T-6½ | Duotriode | 9EF | 6.3* | 0.600 | Sept. 2 Vert. Defl. Amp. Sept. 1 Vert. Osc. | 1.37 | 250 250 | 10.5 8.5 | ... | 19.0 10.5 | ... | 3450 7700 | 4500 2200 | 15.5 17 | ... | ... |
| 6CS8 | T-6½ | Tri. Pentode | 9FZ | 6.3* | 0.450 | Tri. Amp. Pent. Amp. | 2.75 2.3 | 125 125 | 2.0 56 ^m | ... | 12.0 13.0 | ... | 5500 300000 | 4000 7700 | 22 | ... | ... |
| 6CU5 | T-5½ | Pentode | 7CV | 6.3 | 1.200 | Power Amp. | 6.6 | 120 | 8 | 110 | 49 | 4 | 10000 | 7500 | ... | 2500 | 2300 |
| 6CU6 | T-12 | Beam Pent. | 6AM | 6.3 | 1.200 | Horiz. Amp. | 12.1 | Characteristics and Ratings Same as Type 6BQ6GTA. | | | | | | | | | |
| 6CU8 | T-6½ | Tri. Pentode | 9GM | 6.3* | 0.450 | Tri. Amp. Pent. Amp. | 2.82 2.2 | 125 125 | 1.0 56 ^m | ... | 17 12 | ... | 4100 170000 | 5800 7800 | 17 | ... | ... |
| 6CW4 | M-N | Triode | 12AQ | 6.3 | 0.135 | VHF Amp. | 1.0 | 70 | 47K ⁴ | ... | 8 | ... | 12500 | 5440 | 68 | ... | ... |
| 6CW5 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | S.T. A1 Amp. S.T. A1 Amp. P.P.AB1 Amp. | 13 | 100 170 170 | 6.7 12.5 120 ^m | 100 170 170 | 43 70 5 | 3 | 23000 | 9000 | ... | 2400 2400 3500† | 1900 5600 13000 |
| 6CX7 | T-6½ | Duotriode | 9FC | 6.3 | 0.400 | Amplifier | 2.2 | 150 | 220 ^m | ... | 9.0 | ... | ... | 6400 | 39 | ... | ... |
| 6CX8 | T-6½ | Tri. Pentode | 9DX | 6.3 | 0.750 | Tri. Amp. Video Amp. | 2.0 5.0 | 150 200 | 150 ^m 68 ^m | ... | 9.2 24 | ... | 8700 70000 | 4600 10000 | 40 | ... | ... |
| 6CY5 | T-5½ | Tetrode | 7EW | 6.3 | 0.200 | VHF Amp. | 2.0 | 125 | 1.0 | 80 | 10.0 | 1.5 | 100000 | 8000 | ... | ... | ... |
| 6CY7 | T-6½ | Duotriode | 9LG | 6.3 | 0.750 | Vert. Osc. Vert. Defl. A. | 1.0 5.5 | 250 150 | 3 620 ^m | ... | 1.2 30 | ... | 52000 920 | 1300 5400 | 68 5 | ... | ... |
| 6CZ5 | T-6½ | Beam Pent. | 9HN | 6.3* | 0.450 | Vert. Defl. Amp. | 11 | 250 | 14 | 250 | 46.0 | 4.6 | 73000 | 4800 | ... | ... | ... |
| 6D4 | T-5½ | Gas Triode | 5AY | 6.3 | 0.250 | Relay Tube | ... | 350 | 50 | Peak Cathode Current = 100 Ma. Cathode Current = 25 Ma. Approx. Volt Drop at 25 Ma. = 16 Volts. | | | | | | | |
| 6D6 | ST-12 | Pentode | 6F | 6.3 | 0.300 | Amplifier | 2.47 | 100 250 | 3.0 3.0 | 100 100 | 8.0 8.2 | 2.2 2.0 | 250000 800000 | 1500 1600 | ... | ... | ... |
| 6D10 | Comp. T-9 | Triple Triode | 12BQ | 6.3 | 0.450 | VHF R-F/Osc./Mixer | 2.0 | Characteristics Same as Type 6EZ8. | | | | | | | | | |
| 6DA4 | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 5.5 | Max. Peak Inverse Plate Voltage = 4400 Volts. Max. D.C. Plate Current = 155 Ma. | | | | | | | | | |
| 6DA4A | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 8.0 | Max. Peak Inverse Plate Voltage = 5000 Volts. Max. D.C. Plate Current = 185 Ma. | | | | | | | | | |
| 6DA7 | T-6½ | Duotriode | 9EF | 6.3 | 1.000 | Sept. 2 Vert. Defl. Amp. Sept. 1 Vert. Osc. | 2.2 6.6 | 150 250 | 17.5 8.0 | ... | 40.0 9.0 | ... | 1100 7700 | 5700 2600 | 6.3 20 | ... | ... |
| 6DB5 | T-6½ | Beam Pent. | 9GR | 6.3 | 1.200 | Vert. Defl. Amp. | 11 | 200 | 180 ^m | 125 | 46.0 | 2.2 | 28000 | 8000 | ... | ... | ... |
| 6DB6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | Color Demod. | 3.3 | 150 | 1.0 | 150 | 5.8 | 6.6 | 50000 | 2050 μmhos | when Eg3 = -3 Volts. | | |
| 6DC6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | Amplifier | 2.2 | 200 | 180 ^m | 150 | 9.0 | 3.0 | 500000 | 5500 | Semi-Remote Cutoff. | | |
| 6DC8 | T-6½ | Duodi. Pent. | 9HE | 6.3 | 0.300 | R-F Amp. | 2.47 | 200 | 1.5 | 100 | 11 | 3.3 | .6 Meg. | 4500 | ... | ... | ... |
| 6DE4 | T-9 | Diode | 4CG | 6.3 | 1.600 | T.V. Damper | 6.5 | P.I.V. = 5500 Volts Max., D.C. Plate Current = 180 Ma. Max. | | | | | | | | | |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts [†] | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milliwatts |
|--------|---------------------------------|--------------|--------------|---------|-------|--|--------------------------------|--|---|---------------------|---------------------|--------------------------------|-----------------------|--------------------------|----------------------------|------------------------------------|-------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6DE6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.3 | 125 | 56 [■] | 125 | 15.5 | 4.2 | 250000 | 8000 | .... | .... | .... |
| 6DE7 | T-6½ | Duotriode | 9HF | 6.3 | 0.900 | Sect. 2 Vert. Defl. Amp. Sect. 1 Vert. Osc. | 7.0 1.5 | 125 150 250 | 56 [■] 17.5 11.0 | 125 | 15.5 35.0 5.5 | 4.2 | 250000 925 8750 | 8000 6500 2000 | 6 17.5 | .... .... .... | .... .... .... |
| 6DG6GT | T-9 | Beam Pent. | 7S | 6.3 | 1.200 | Power Amp. | 11 | 110 200 | 7.5 180 [■] | 110 125 | 49 46 | 4.0 2.2 | 13000 28000 | 8000 8000 | .... .... | 2000 4000 | 2100 3800 |
| 6DG7 | T-6½ | Pentode | 9BA | 6.3 | 0.300 | R-F or I-F Amplifier | 3.3 | 100 250 | 68 [■] 68 [■] | 100 100 | 10.8 11.0 | 4.4 4.2 | 250000 1 Meg. | 4300 4400 | .... .... | .... .... | .... .... |
| 6DJ8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.365 | VHF Amp. | 1.98 | 90 | 1.3 | .... | 15 | .... | 2700 | 12500 | 33 | .... | .... |
| 6DK6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.2 | 125 | 56 [■] | 125 | 12.0 | 3.8 | .... | 9800 | .... | .... | .... |
| 6DM4 | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 6.5 | Max. Peak Inverse Plate Voltage = 5000 Volts. | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6DM4A | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 6.5 | Max. Peak Inverse Plate Voltage = 5000 Volts. | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6DN6 | T-12 | Beam Pent. | 5BT | 6.3 | 2.500 | Horiz. Defl. Amp. | 16.5 | Max. Peak Positive Pulse Plate Voltage = 6600 Volts. | 125 | 18 | 125 | 70 | 6.3 | 4000 | .... | .... | .... |
| 6DN7 | T-9 | Duotriode | 8BD | 6.3 | 0.900 | Sect. 2 Vert. Defl. Amp. Sect. 1 Vert. Osc. | 10 1.0 | 250 250 | 9.5 8 | .... .... | 41 8.0 | .... .... | 2000 9000 | 7700 2500 | 15.4 22.5 | .... .... | .... .... |
| 6DQ4 | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 6.0 | Max. Peak Inverse Plate Voltage = 5500 Volts. | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6DQ5 | T-12 | Beam Pent. | 8JC | 6.3 | 2.500 | Horiz. Defl. Amplifier | 26.4 | Max. Peak Positive Pulse Plate Voltage = 7000 Volts. | 175 | 25 | 125 | 110 | 5 | 5500 | 10500 | .... | .... |
| 6DQ6A | T-12 | Beam Pent. | 6AM | 6.3 | 1.200 | Horiz. Defl. Amplifier | 18 | 6000 250 | Max. Peak Positive Pulse Plate Volts. 22.5 | 150 55 | 155 Ma. 1.5 | Max. Cathode Current. 20000 | 6600 | .... | .... | .... | .... |
| 6DQ6B | T-12 | Beam Pent. | 6AM | 6.3 | 1.200 | Horiz. Defl. Amplifier | 18 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. | 250 | 22.5 | 150 | 65 | 1.8 | 18000 | 7300 | 4.4 | G1 to G2 |
| 6DR4 | T-5½ | Triode | 6BG | 6.3 | 0.150 | A-F Amp. | 1.2 | 100 250 | 1.0 2.0 | .... .... | 0.5 1.2 | .... .... | 80000 62500 | 1250 1600 | 100 100 | .... .... | .... .... |
| 6DR7 | T-6½ | Duotriode | 9HF | 6.3 | 0.900 | Sect. 2 Vert. Defl. Amp. Sect. 1 Vert. Osc. | 7.0 1.0 | 150 250 | 17.5 3 | .... .... | 35 1.4 | .... .... | 925 40000 | 6500 1600 | 6 64 | .... .... | .... .... |
| 6DS4 | M-N | Triode | 12AQ | 6.3 | 0.135 | VHF Amp. | 1.0 | 110 | 130 [■] | | 6.5 | .... | 7000 | 9000 | 63 | .... | .... |
| 6DS5 | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.800 | Power Amp. | 8.8 | 200 250 | 180 [■] 270 [■] | 200 200 | 34.5 27 | 3.5 3 | 28000 28000 | 6000 5800 | .... .... | 6000 8000 | 2800 3600 |
| 6DT4 | T-9 | Diode | 4CG | 6.3 | 1.200 | T.V. Damper | 7.5 | Max. Peak Inverse Plate Voltage = 5500 Volts. | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6DT5 | T-6½ | Beam Pent. | 9HN | 6.3 | 1.200 | Vert. Defl. Amp. | 9.0 9.0 | 250 250 | 16.5 250 | 44 | 1.5 | .... | 6200 | .... | .... | .... | .... |
| 6DT6 | T-5½ | Gated Beam | 7EN | 6.3 | 0.300 | Quad. F. M. Det. FM Det. | 1.65 | 150 | 560 [■] | 100 | 1.1 | 2.1 | 150000 | 615 Gr. #1 515 Gr. #3 | -4.5 Gr. #1 -3.5 Gr. #3 | #1 for 10 µA IB #3 for 10 µA IB | .... |
| 6DT6A | T-5½ | Pentode | 7EN | 6.3 | 0.300 | Quad. F. M. Det. FM Det. | 1.7 | 150 | 560 [■] | 100 | 1.55 | 1.8 | 150000 | 1350 | .... | .... | .... |
| 6DT8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.300 | Amplifier | 2.75 | 100 250 | 270 [■] 200 [■] | | 3.7 10 | .... .... | 15000 10900 | 4000 5500 | 60 60 | .... .... | .... .... |
| 6DV4 | M-N | Triode | 12EA | 6.3 | 0.135 | UHF Osc. | 1.0 | 75 | 100 [■] | | 10.5 | .... | 3100 | 11500 | 35 | .... | .... |
| 6DW4 | Novar T-9 | Diode | 9HP | 6.3 | 1.200 | T.V. Damper | 8.5 | Max. Peak Inverse Plate Voltage = 5000 Volts. | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 6DW5 | T-6½ | Beam Pent. | 9CK | 6.3 | 1.200 | Vert. Defl. Amp. | 11 | Max. Peak Positive Pulse Plate Voltage = 2200 Volts. | 200 | 22.5 | 150 | 55 | 2.0 | 15000 | 5500 | 4.3 | .... |
| 6DX4 | T-5½ | Triode | 7DK | 6.3 | 0.200 | UHF Osc. | 2.2 | 85 | 150 [■] | | 10.0 | .... | 2700 | 11000 | 30 | .... | .... |
| 6DX8 | T-6½ | Tri. Pentode | 9HX | 6.3 | 0.720 | Sync. Sep. Video Amp. | 1.0 4.0 | 200 220 | 1.7 3.4 | 220 | 3.0 18 | 3.0 | 150000 | 4000 10000 | 65 36 | .... .... | .... .... |
| 6DY4 | T-5½ | Triode | 7DK | 6.3 | 0.125 | UHF Osc. | 1.5 | 90 | 180 [■] | | 10.4 | .... | .... | 11000 | 28 | .... | .... |

(1) See Frontal Section.

(3) Has Special Mechanical and/or Life Characteristics.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

(2) Design Maximum Values.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

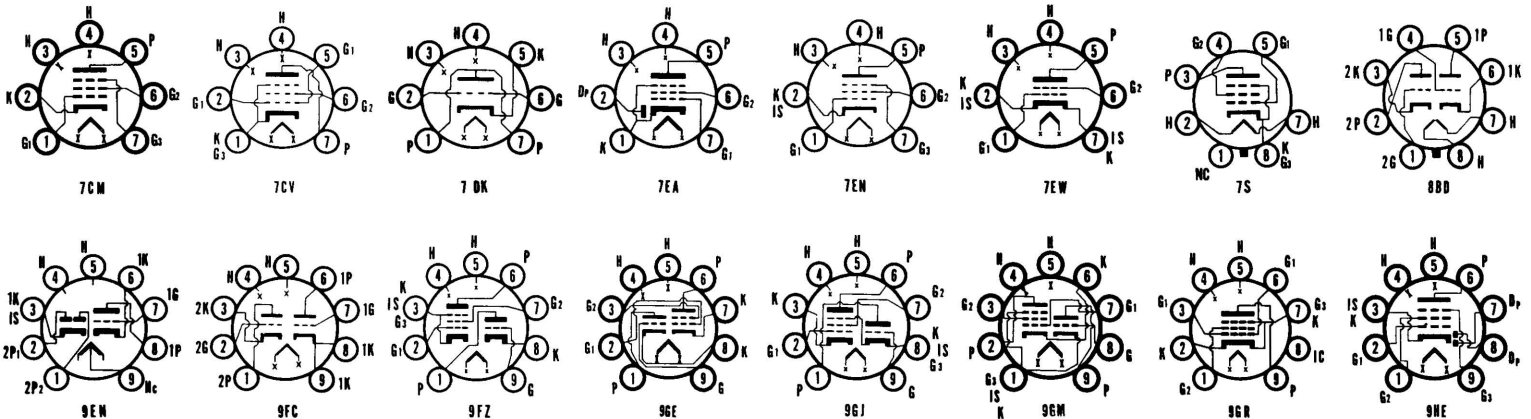
† Maximum Signal.

◆ Filamentary Type.

▲ Conversion Transconductance.

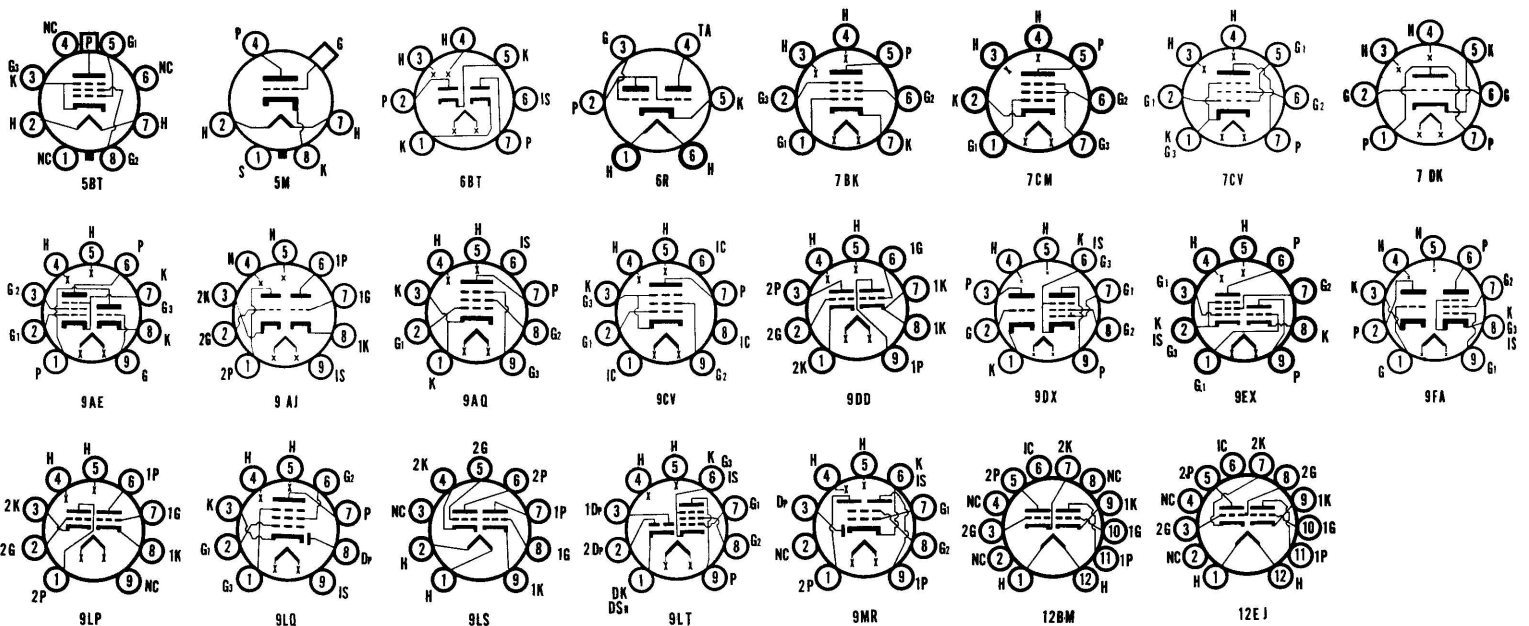
‡ Plate to Plate.

■ Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|-------|---------------------------------|-------------------|--------------|---------|-------|--|--------------------------------|---|--|--------------|-------------------|--------------------|-------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|----------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 6DY4A | T-5½ | Triode | 7DK | 6.3 | 0.125 | UHF Osc. | 1.5 | 90 | 180 ^m | ... | 10.4 | ... | ... | 11000 | 28 | ... | ... | |
| 6DY5 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.800 | S.T. A1 Amp. P.P. A1 Amp. | 10 | 200 | 13.9 | 190 | 45 | 8.5 | 24000 | 7600 | ... | 4000 | 4200 | |
| 6DZ4 | T-5½ | Triode | 7DK | 6.3 | 0.225 | UHF Osc. | 2.3 | 80 | 2700 (Pl. Res.) | ... | 15.0 | ... | 2000 | 6700 | 14 | ... | ... | |
| 6DZ7 | T-12 | Double Beam Pent. | 8JP | 6.3 | 1.520 | P.P. AB1 Amp. P.P. AB1 Amp. | 13.2 | 400 300 | 11 120 ^m | 250 250 | 40-100† 66-80† | 4-13† 7-15† | ... | ... | ... | 9000 9000 | 18000 12000 | |
| 6DZ8 | T-6½ | Tri. Beam Pent. | 9EX | 6.3 | 0.900 | A-F Triode Volt. Amp. and Pent. Power Amp. | .825 | 120 | 1500 ^m | ... | 0.8 | ... | 71000 | 1400 | 100 | ... | ... | |
| 6E5 | T-9 | Electron Ray | 6R | 6.3 | 0.300 | Indicator | ... | 100 250 | (Series Plate Resistor 0.5 Meg. Target Current 1.0 Ma. Grid Bias = 3.3 for 90° Shadow.) (Series Plate Resistor 1.0 Meg. Target Current 4.0 Ma. Grid Bias = 8.0 for 90° Shadow.) | ... | ... | ... | ... | ... | ... | ... | ... | |
| 6EA5 | T-5½ | Tetrode | 7EW | 6.3 | 0.200 | VHF Amp. | 3.25 | 250 | 1.0 | 140 | 10 | 0.95 | 150000 | 8000 | ... | ... | ... | |
| 6EA7 | T-9 | Duotriode | 8BD | 6.3 | 1.050 | Sect. 2 Vert. Amp. Sect. 1 Vert. Osc. | 10 | 175 | 25 | ... | 40 | ... | 920 | 6000 | 5.5 | ... | ... | |
| 6EA8 | T-6½ | Tri. Pentode | 9AE | 6.3* | 0.450 | Tri. VHF Amp. Pent. Amp. | 3.0 3.1 | 150 125 | 56 ^m 1.0 | ... | 18 12 | ... | 5000 200000 | 8500 6400 | 40 | ... | ... | |
| 6EB5 | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | Low Current Volt./Doubler | ... | ... | Max. Peak Inverse Plate Voltage = 550 Volts. Plate Current = 5.5 Ma. | | ... | ... | ... | ... | ... | ... | ... | |
| 6EB8 | T-6½ | Tri. Pentode | 9DX | 6.3 | 0.750 | A-F Amp. Video Amp. | 1.0 5.0 | 250 200 | 2.0 68 ^m | ... | 2 25 | ... | 37000 75000 | 2700 12500 | ... | ... | ... | |
| 6EH5 | T-5½ | Beam Pent. | 7CV | 6.3 | 1.200 | S.T. A1 Amp. | 5.5 | 110 | 62 ^m | 115 | 42 | 11.5 | 11000 | 14600 | ... | 3000 | 1400 | |
| 6EH7 | T-6½ | Pentode | 9AQ | 6.3 | 0.300 | VHF Amp. | 2.7 | 200 | 2.0 | 90 | 12 | 4.5 | 50000 | 12500 | ... | ... | ... | |
| 6EH8 | T-6½ | Tri. Pentode | 9JG | 6.3* | 0.450 | VHF Osc. VHF Amp. | 2.5 2.8 | 125 125 | 1.0 1.0 | ... | 13.5 12 | ... | ... | 7500 6000 | 40 | ... | ... | |
| 6EJ7 | T-6½ | Pentode | 9AQ | 6.3 | 0.300 | VHF Amp. | 2.7 | 200 | 2.5 | 200 | 10 | 4.1 | 35000 | 15000 | ... | ... | ... | |
| 6EL7 | T-6½ | Pentode | 9AQ | 6.3 | 0.300 | VHF Amp. | 3.0 | 170 | 150 ^m | 170 | 10 | 2.6 | ... | 9200 | ... | ... | ... | |
| 6EM5 | T-6½ | Beam Pent. | 9HN | 6.3 | 0.800 | Vert. Defl. Amplifier | 11 | Maximum Peak Positive Plate Voltage = 2200 Volts. Maximum D.C. Cathode Current = 60 Ma. | | 250 | 18 | 250 | 40 | 3 | 5000 | 5100 | 8.7 | G1 to G2 |
| 6EM7 | T-9 | Duotriode | 8BD | 6.3 | 0.925 | Vert. Osc. Vert. Defl. A. | 1.5 10 | 250 150 | 3.0 20 | ... | 1.4 50 | ... | 40000 750 | 1600 7200 | 64 5.4 | ... | ... | |
| 6EQ7 | T-6½ | Diode Pent. | 9LQ | 6.3 | 0.300 | Det. R-F Amp. | 3.0 | 100 | 2.2 Meg† | 100 | 9 | 3.5 | 250000 | 3800 | ... | ... | ... | |
| 6ER5 | T-5½ | Triode | 7FP | 6.3 | 0.180 | VHF Amp. | 2.2 | 200 | 1.2 | 0 | 10 | 0 | 8000 | 10500 | 80 | ... | ... | |
| 6ES5 | T-5½ | Triode | 7FP | 6.3* | 0.200 | VHF Amp. | 2.2 | 200 | 1.0 | ... | 10 | ... | 8000 | 9000 | 75 | ... | ... | |
| 6ES8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.365 | VHF Amp. | 1.98 | 90 | 1.2 | ... | 15 | ... | ... | 12500 | ... | ... | ... | |
| 6ET7 | T-6½ | Duodi. Pent. | 9LT | 6.3 | 0.750 | Video Amp. | 5.0 | 200 | 100 ^m | 150 | 25 | 5.5 | 60000 | 11500 | ... | ... | ... | |
| 6EU7 | T-6½ | Duotriode | 9LS | 6.3 | 0.300 | A-F Amp. | 1.2 | 100 | 1.0 | ... | 0.5 | ... | 80000 | 1250 | 100 | ... | ... | |
| 6EU8 | T-6½ | Tri. Pentode | 9JF | 6.3 | 0.450 | VHF Osc. VHF Amp. | 3.1 | 150 125 | 56 ^m 1.0 | ... | 18 12 | ... | 5000 80000 | 8500 6400 | 40 | ... | ... | |
| 6EV5 | T-5½ | Tetrode | 7EW | 6.3 | 0.200 | VHF Amp. | 3.25 | 250 | 1.0 | 80 | 11.5 | 0.9 | 150000 | 8800 | ... | ... | ... | |
| 6EV7 | T-6½ | Duotriode | 9LP | 6.3 | 0.600 | Relay Control Tube | 2.5 | 250 | 2.0 | ... | 9.2 | ... | 11500 | 5200 | 60 | ... | ... | |
| 6EW6 | T-5½ | Pentode | 7CM | 6.3 | 0.400 | VHF Amp. | 3.1 | 125 | 56 ^m | 125 | 11 | 3.2 | 200000 | 14000 | ... | ... | ... | |
| 6EW7 | 9-T9 | Duotriode | 9HF | 6.3 | 0.900 | Vert. Defl. Amp. Vert. Osc. | 10 | 150 | 17.5 | ... | 45 | ... | 800 | 7500 | 6 | ... | ... | |
| 6EX6 | T-12 | Beam Pent. | 5BT | 6.3 | 2.250 | Horiz. Defl. Amp. | 22 | 175 | 30 | 175 | 67 | 3.3 | 8500 | 7700 | ... | ... | ... | |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|-----------------------------|--------------|---------|-------|------------------------------------|--------------------------------|-------------|--------------------------|--------------|----------------------|--------------------|-----------------------------|---------------------------|----------------------|-----------------------------------|------------------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6EY6 | T-9 | Beam Pent. | 7S | 6.3 | 0.680 | Vert. Defl. Amp. | 11 | Max. 250 | Peak Positive Pulse 17.5 | 250 | Plate Voltage = 2500 | 44 | 3 | 2500 | 60000 | 4400 | Max. D.C. Cathode Current = 60 Ma. |
| 6EZ5 | T-9 | Beam Pent. | 7S | 6.3 | 0.800 | Vert. Defl. Amp. | 12 | Max. 250 | Peak Positive Pulse 20 | 250 | Plate Voltage = 2500 | 43 | 3.5 | 2500 | 50000 | 4100 | Max. D.C. Cathode Current = 75 Ma. |
| 6EZ8 | T-6½ | Triple Triode | 9KA | 6.3 | 0.450 | VHF Amp. | 2.0 | 125 | 1.0 | ... | 4.2 | ... | 13600 | 4200 | 57 | ... | ... |
| 6F5 | Metal T-9 | Triode | 5M | 6.3 | 0.300 | A-F Amp. | ... | 250 | 2.0 | ... | 0.9 | ... | 66000 | 1500 | 100 | ... | ... |
| 6F6 | Metal ST-14 | Power Pent. | 7S | 6.3 | 0.700 | Power Amp. S.T.A1 Amp. | 12.1 | 250 | 16.5 | 250 | 34.0 | 6.5 | 80000 | 2500 | ... | 7000 | 3200 |
| 6F6G | T-9 | Power Pent. | 7S | 6.3 | 0.700 | P.P.A1 Amp. | 285 | 285 | 20.0 | 285 | 38.0 | 7.0 | 78000 | 2550 | ... | 7000 | 4800 |
| 6F6GT | T-9 | Power Pent. | 7S | 6.3 | 0.700 | P.P.AB2 Amp. | 315 | 315 | 24.0 | 285 | 62-80† | 12-19.5† | (Current & Output, 2 Tubes) | 10000† | ... | 10000† | 11000 |
| 6FA7 | T-6½ | Diode Duo Plate Tet. | 9MR | 6.3 | 0.300 | Frequency Divider | 1.5 | 100 | 2.2 Meg ⁴ | 100 | 3.8 | 1.7 | 90000 | 3200 | ... | ... | ... |
| 6FC7 | T-6½ | Duotriode | 9DD | 6.3 | 0.340 | VHF Amp. | 1.9 | 90 | 1.2 | ... | 15 | ... | ... | 12000 | ... | ... | ... |
| 6FD6 | T-5½ | Pentode | 7BK | 6.3 | 0.330 | R-F Amp. | ... | 12.6 | 2.2 Meg ⁴ | 12.6 | 1.4 | 0.5 | 500000 | 1450 | ... | ... | ... |
| 6FD7 | 9-T9 | Duotriode | 9HF | 6.3 | 0.925 | Sect. 2 Vert. Defl. Amp. | 10 | Max. 150 | Peak Positive Pulse 17.5 | ... | 40 | ... | 800 | 7500 | 6 | ... | Max. D.C. Cathode Current = 50 Ma. |
| 6FE5 | T-6½ | Beam Pent. | 8KB | 6.3 | 1.200 | S.T.A1 Amp. P.P.AB1 Amp. | 14.5 | 130 | 120 [■] | 130 | 82-94† | 4-15† | ... | ... | ... | 1000 | 3500 |
| 6FG5 | T-5½ | Shadow Grid Pent. | 7GA | 6.3 | 0.200 | VHF Amp. | 2.7 | 250 | 0.2 | 250 | 9 | 0.42 | 250000 | 9500 | ... | ... | ... |
| 6FG7 | T-6½ | Tri. Pentode | 9GF | 6.3 | 0.450 | VHF Osc./Mixer | 2.5 | 125 | 1.0 | ... | 13 | ... | 5700 | 7500 | 43 | ... | ... |
| 6FH5 | T-5½ | Triode | 7FP | 6.3 | 0.200 | R-F Amp. | 2.2 | 135 | 1.0 | ... | 11 | ... | 5600 | 9000 | 50 | ... | ... |
| 6FH8 | T-6½ | Triode Triple Plate Tetrode | 9KP | 6.3 | 0.450 | Tri. Amp. 3 Plate Tet. Plate No. 1 | 1.7 | 100 | 1.0 | ... | 7.9 | ... | 7400 | 5400 | 40 | ... | ... |
| | | | | | | Plate No. 2 | 2.3 | 100 | 1.0 | 50 | 1.6 | 0.3 | ... | 2500 | ... | ... | ... |
| | | | | | | Plate No. 3 | 0.3 | 100 | ... | ... | .04 | ... | ... | 70 | ... | ... | ... |
| | | | | | | | 0.3 | 100 | ... | ... | .04 | ... | ... | 70 | ... | ... | ... |
| 6FJ7 | Comp. T-9 | Duotriode | 12BM | 6.3 | 0.900 | Sect. 2 Vert. Defl. Amp. | 10 | Max. 250 | Peak Positive Pulse 9.5 | ... | 41 | ... | 2000 | 7700 | 15.4 | ... | Max. D.C. Cathode Current = 50 Ma. |
| | | | | | | Sect. 1 Vert. Osc. Amp. | 1.0 | 250 | 8.0 | ... | 8 | ... | 9000 | 2500 | 22.5 | ... | ... |
| 6FM7 | Comp. T-9 | Double Tri. | 12EJ | 6.3 | 1.050 | Vert. Defl. Osc. Vert. Defl. Amp. | 1.0 | 250 | 3 | ... | 2.0 | ... | 30000 | 2200 | 66.0 | ... | ... |
| | | | | | | | 10.0 | 175 | 25 | ... | 40.0 | ... | 920 | 6000 | 5.5 | ... | ... |
| | | | | | | | ... | ... | ... | ... | ... | ... | 58000 | 1200 | 70 | ... | Max. D.C. Cathode Current = 50 Ma. |
| 6FM8 | T-6½ | Duodiode Tri. | 9KR | 6.3 | 0.450 | Det. Amp. | 1.1 | 250 | 3 | ... | 1.0 | ... | 58000 | 1200 | 70 | ... | ... |
| 6FQ5 | T-5½ | Triode | 7FP | 6.3 | 0.180 | VHF Amp. | 2.5 | 135 | 1.2 | ... | 11.5 | ... | 5500 | 11000 | 60 | ... | ... |
| 6FQ5A | T-5½ | Triode | 7FP | 6.3 | 0.180 | VHF Amp. | 2.5 | 135 | 1.2 | ... | 8.9 | ... | 6300 | 12000 | 74 | ... | ... |
| 6FQ7 | T-6½ | Duotriode | 9LP | 6.3* | 0.600 | General Purpose | 4.0 | 90 | 0 | ... | 10 | ... | 6700 | 3000 | 20 | ... | ... |
| | | | | | | | 250 | 8.0 | ... | 9 | ... | ... | 7700 | 2600 | 20 | ... | ... |
| 6FR7 | 9-T9 | Duotriode | 9HF | 6.3 | 0.925 | Vert. Defl. Amplifier Vert. Osc. | 10 | Max. 150 | Peak Positive Pulse 20 | ... | 50 | ... | 750 | 7200 | 5.4 | ... | Max. D.C. Cathode Current = 50 Ma. |
| | | | | | | | 1.5 | 250 | 3.0 | ... | 1.4 | ... | 40000 | 1600 | 68 | ... | ... |
| 6FS5 | T-5½ | Shadow Grid Beam Pent. | 7GA | 6.3 | 0.200 | VHF Amp. | 3.2 | 275 | 0.2 | 135 | 9 | 0.17 | 240000 | 10000 | ... | ... | ... |
| 6FV6 | T-5½ | Tetrode | 7FQ | 6.3 | 0.200 | VHF Amp. | 2.0 | 125 | 1.0 | 80 | 10 | 1.5 | 100000 | 8000 | ... | ... | ... |
| 6FV8 | T-6½ | Tri. Pentode | 9FA | 6.3* | 0.450 | Vert. Osc. VHF Amp. | 2.0 | 125 | 1.0 | ... | 14 | ... | 5000 | 8000 | 40 | ... | ... |
| | | | | | | | 2.3 | 125 | 1.0 | 125 | 12 | 4.0 | 200000 | 6500 | ... | ... | ... |

(1) See Frontal Section.

(2) Design Maximum Values.

† Maximum Signal.

(3) Has Special Mechanical and/or Life Characteristics.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

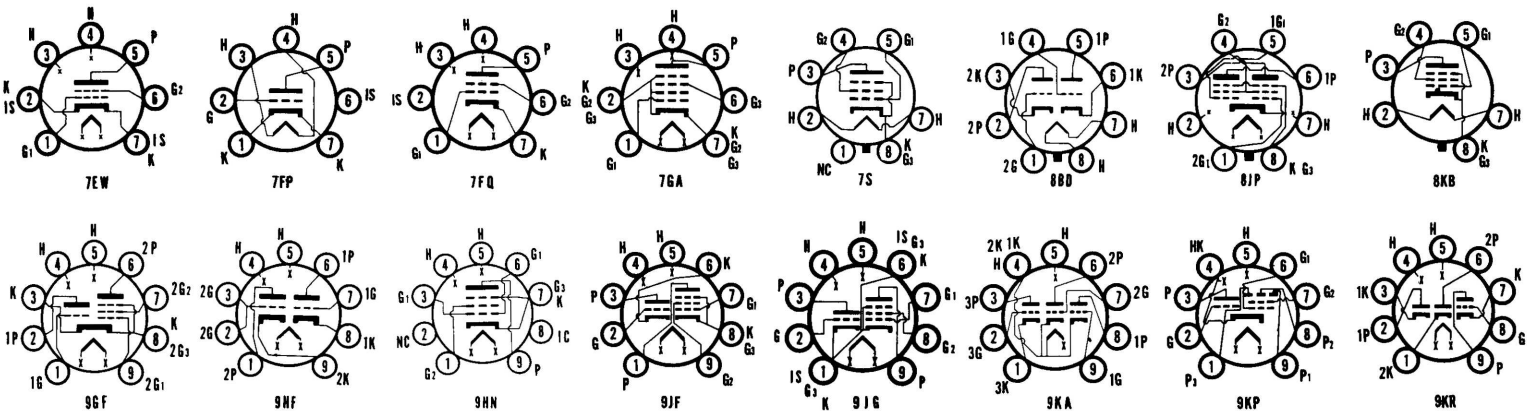
♦ Filamentary Type.

* Conversion Transconductance.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

† Plate to Plate.

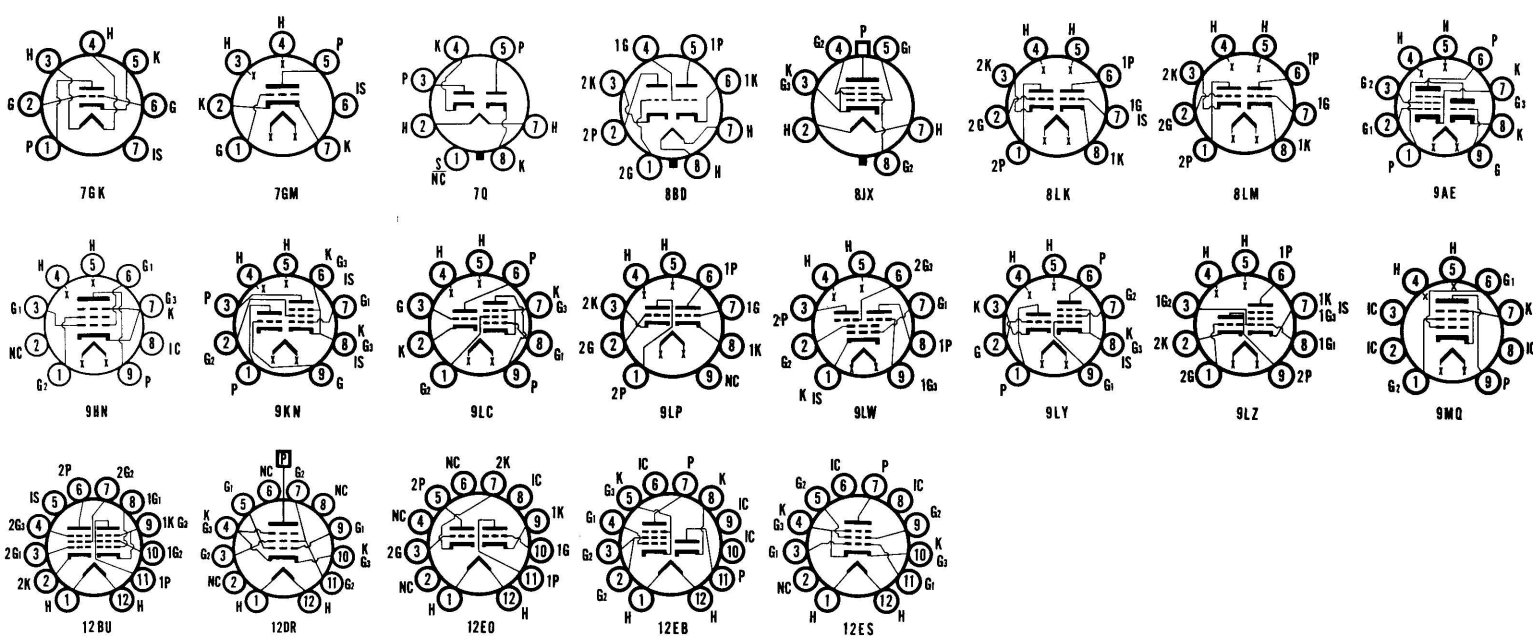
■ Cathode Resistor (ohms).



AVERAGE CHARACTERISTICS

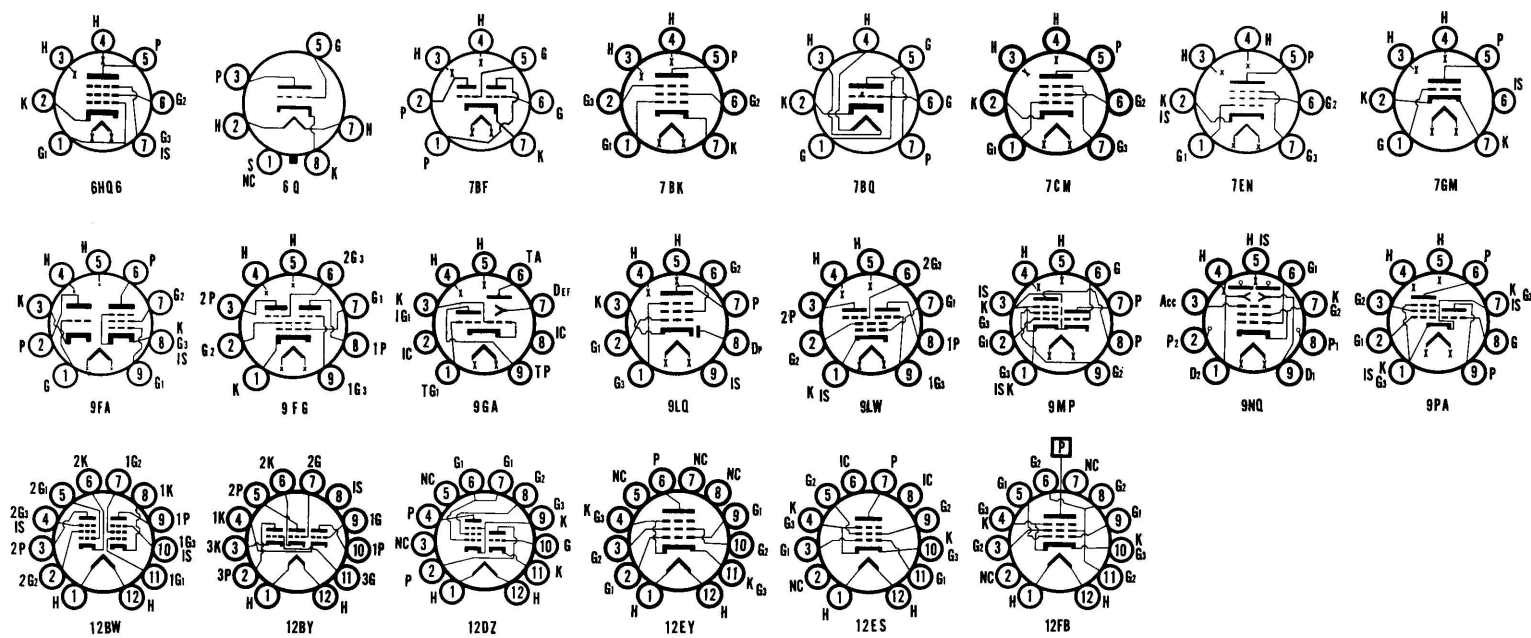
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|------------|---------------------------------|---------------|--------------|---------|-------|-----------------------------------|---|--|-----------------------|--------------|-------------------|--------------------|---|---|---------------------------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6GM5 | 9-T9 | Beam Pent. | 9MQ | 6.3 | 0.800 | A-F Pwr. Amp. | 19 | Characteristics and Ratings Same as Type 7591. | | | | | | | | | |
| 6GM6 | T-5½ | Pentode | 7CM | 6.3 | 0.400 | VHF Amp. | 3.1 | 125 | 56 [■] | 125 | 14 | 3.4 | 20000 | 13000 | ..... | ..... | ..... |
| 6GM8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.330 | R-F Amp. Osc. Mixer | .66 | 12.6 | 0.1 Meg ⁴ | ..... | 2.5 | ..... | 3400 | 4600 | ..... | ..... | ..... |
| | | | | | | | | 12.6 | 0.22 Meg ⁴ | ..... | 1.0 | ..... | 8000 | 1300 ^A | ..... | ..... | ..... |
| | | | | | | | | Oscillator Volts = 1.0 Volt. Plate Circuit Res. = 500 Ohms. | | | | | | | | | |
| 6GN6 | T-5½ | Pentode | 7FW | 6.3* | 0.300 | R-F Amp. | 3.3 | 100 | 68 [■] | 100 | 10.8 | 4.4 | 250000 | 4300 | ..... | ..... | ..... |
| | | | | | | | | 250 | 68 [■] | 100 | 11 | 4.2 | 1 Meg. | 4400 | ..... | ..... | ..... |
| 6GN8 | T-6½ | Tri. Pentode | 9DX | 6.3 | 0.750 | Tri. Amp. Video Amp. | 1.0 | 250 | 2.0 | ..... | 2.0 | ..... | 37000 | 2700 | 100 | ..... | ..... |
| | | | | | | | 5.0 | 200 | 100 [■] | 150 | 25 | 2.0 | 60000 | 11500 | ..... | ..... | ..... |
| 6GQ7 | T-6½ | Triple Diode | 9QM | 6.3 | 0.450 | AM Detector FM Ratio Det. | Max. Peak Inverse Plate Voltage = 330 Volts. Max. Peak Plate Current = 54 Ma. | | | | | | | | | | |
| 6GS8 | T-6½ | Duo. Pent. | 9LW | 6.3 | 0.300 | Sync. Sep. | 1.1 | 100 | G3=10 | 67.5 | ..... | 6.0 | IK = 6.1 Ma., IG ¹ = 100 μa. | ..... | ..... | ..... | ..... |
| | | | | | | | | 100 | G3=0 | 67.5 | 2.0 | 3.6 | IK = 7.7 Ma., IG ¹ = 100 μa. | ..... | ..... | ..... | ..... |
| 6GT5 | Novar T-12 | Beam Pent. | 9NZ | 6.3 | 1.200 | Horiz. Defl. Amplifier | 17.5 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. Max. D.C. Cathode Current = 175 Ma. | | | | | | | | | |
| | | | | | | | | 250 | 22.5 | 150 | 70 | 2.1 | 15000 | 7100 | ..... | ..... | ..... |
| 6GU5 | T-5½ | Pentode | 7GA | 6.3 | 0.220 | VHF Amp. | 3.0 | 135 | 0.4 | 135 | 9.0 | 0.25 | 670000 | 15000 | ..... | ..... | ..... |
| 6GU7 | T-6½ | Twin Triode | 9LP | 6.3* | 0.600 | Chroma Amp. | 3.0 | 250 | 10.5 | ..... | 11.5 | ..... | 5500 | 3100 | 17 | ..... | ..... |
| 6GV5 | Comp. T-12 | Beam Pent. | 12DR | 6.3 | 1.200 | Horiz. Defl. Amp. | 17.5 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. Max. D.C. Cathode Current = 175 Ma. | | | | | | | | | |
| | | | | | | | | 250 | 22.5 | 150 | 65 | 1.8 | 18000 | 7300 | 4.4 | ..... | ..... |
| 6GV7 | T-6½ | Triode Pent. | 9KN | 6.3 | 0.350 | VHF Osc. VHF Mixer | T2.0 | 100 | 3 | ..... | 14 | ..... | 5.5 Ma/V | 17 | ..... | ..... |  |
| | | | | | | | P2.0 | 125 | 1.5 | 125 | 10 | 3.1 | 11 Ma/V | 50 | ..... | ..... |  |
| 6GV8 | T-6½ | Triode Pent. | 9LY | 6.3 | 0.900 | Vert. Defl. Osc. Vert. Defl. Amp. | 0.5 | 100 | 0.8 | ..... | 5 | ..... | 7600 | 6500 | 50 | ..... | ..... |
| | | | | | | | 7.0 | 170 | 15 | 170 | 41 | 2.7 | 25000 | 7500 | 7 | ..... | ..... |
| 6GW5 | T-5½ | Triode | 7GK | 6.3 | 0.190 | VHF Amp. | 2.5 | 135 | 1 | ..... | 12.5 | ..... | 5800 | 15000 | 70 | ..... | ..... |
| 6GW6 | T-12 | Beam Pent. | 6AM | 6.3 | 1.200 | Horiz. Defl. Amplifier | 17.5 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. Max. D.C. Cathode Current = 175 Ma. | | | | | | | | | |
| | | | | | | | | 250 | 22.5 | 150 | 70 | 2.1 | 15000 | 7100 | G ² to G ¹ =4.4 | ..... | ..... |
| 6GW8 | T-6½ | Tri. Pentode | 9LZ | 6.3 | 0.700 | A-F Amp. S.T.A1 Amp. | 0.55 | 250 | 1.7 | ..... | 1.2 | ..... | 1600 | 1000 | 100 | 7000 | 4200 |
| | | | | | | | 9.9 | 250 | 170 [■] | 250 | 36 | 5.5 | 45000 | 10000 | ..... | ..... | ..... |
| 6GX6 | T-5½ | Pentode | 7EN | 6.3* | 0.450 | Dual Control | 1.7 | 150 | 180 [■] | 100 | 3.7 | 3 | 140000 | G ¹ 3700 G ² 750 | ..... | ..... | ..... |
| 6GY5 | Comp. T-12 | Beam Pent. | 12DR | 6.3 | 1.500 | Horiz. Defl. Amp. | 18 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. Max. Cathode Current = 230 Ma. | | | | | | | | | |
| | | | | | | | | 130 | 20 | 130 | 50 | 1.75 | 11000 | 9100 | 4.7 | ..... | ..... |
| 6GY6 | T-5½ | Pentode | 7EN | 6.3* | 0.450 | Dual Control | 1.7 | 150 | 180 [■] | 100 | 3.7 | 3 | 140000 | G ¹ 3700 G ² 750 | ..... | ..... | ..... |
| 6GY8 | T-6½ | Triple Triode | 9MP | 6.3 | 0.450 | VHF Osc./ Amp./Mixer | 2.0 | 125 | 220 [■] | | 4.5 | ..... | 14000 | 4500 | 63 | ..... | ..... |
| 6GZ5 | T-5½ | Beam Pent. | 7CV | 6.3 | 0.380 | S.T. A1 Amp. | 4.8 | 250 | 270 [■] | 250 | 16 | 2.7 | 150000 | 8400 | ..... | 15000 | 1100 |
| | | | | | | | | 250 | 270 [■] | 250 | 16 | 2.7 | 150000 | 8400 | ..... | 15000 | 1800 |
| | | | | | | | | Bypassed Cathode Resistor. PO = 1.1 at 10% Dist. Unbypassed RK PO = 1.8 at 10% Dist. | | | | | | | | | |
| 6H6, 6H6GT | T-9, Metal | Duodiode | 7Q | 6.3 | 0.300 | Rectifier | ..... | 117 A.C. Volts Per Plate, RMS, 8.0 Ma. Output Current Per Plate. | | | | | | | | | |
| 6HA5 | T-5½ | Triode | 7GM | 6.3 | 0.180 | VHF Amp. | 2.6 | 135 | 1 | ..... | 11.5 | ..... | 14500 | 42 | ..... | ..... | ..... |
| 6HB5 | Comp. T-12 | Beam Pent. | 12BJ | 6.3 | 1.500 | Horiz. Defl. Amp. | 18 | Max. Peak Positive Pulse Plate Voltage = 6000 Volts. Max. Cathode Current = 230 Ma. | | | | | | | | | |
| | | | | | | | | 130 | 20 | 130 | 50 | 1.75 | 11000 | 9100 | 4.7 | ..... | ..... |
| 6HB6 | T-6½ | Beam Pent. | 9PU | 6.3 | 0.760 | Vert. Defl. Amplifier | 10 | Maximum Peak Positive Plate Voltage = 2500 Volts. | | | | | | | | | |
| | | | | | | | | 250 | 33 [■] | 125 | 40 | 4.2 | 28000 | 24000 | ..... | ..... | ..... |
| 6HC8 | 9-T9 | Tri. Pentode | 9EX | 6.3 | 1.200 | Vert. Defl. Amplifier Vert. Osc. | 1.0 | 250 | 18 | 250 | 38 | 3 | 55000 | 5100 | ..... | ..... | ..... |
| | | | | | | | 11 | 250 | 3 | ..... | 1.4 | ..... | 34000 | 2000 | 68 | ..... | ..... |
| 6HD5 | Comp. T-12 | Beam Pent. | 12ES | 6.3 | 2.250 | Horiz. Defl. Amp. | 24 | Max. Peak Positive Pulse Plate Voltage = 7000 Volts. Max. Cathode Current = 280 Ma. | | | | | | | | | |
| | | | | | | | | 135 | 22 | 135 | 65 | 4 | 5000 | 10000 | 4.2 | ..... | ..... |

(1) See Frontal Section. (2) Design Maximum Values. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 † Maximum Signal. ‡ Filamentary Type. †† Conversion Transconductance. ††† Plate to Plate. †††† Cathode Resistor (ohms).



SYLVANIA TUBES

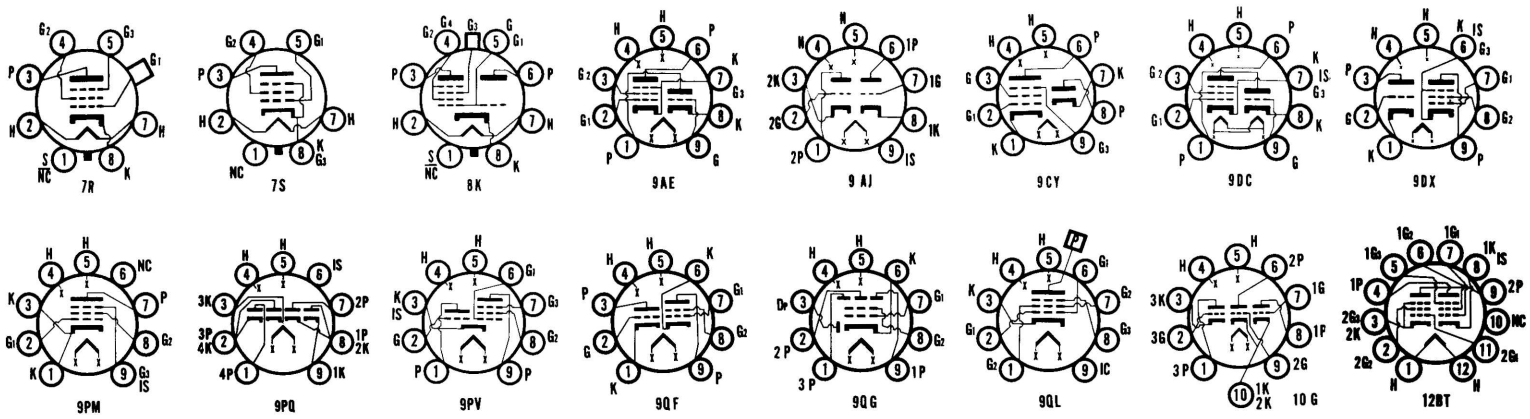
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|--------------------|---------------------------------|-----------------------|--------------|---------|-------|---|--------------------------------|-------------|--|----------------------------------|-------------------|-----------------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 6HE5 | Comp. T-9 | Beam Pent. | 12EY | 6.3 | 0.800 | Vert. Defl. Amp. | 12 | Max. 250 | Peak Positive 20 | Pulse Plate Voltage = 2500 Volts | 43 | 2500 | 50000 | 4100 | 75 | 75 | ..... |  |
| 6HF5 | Comp. T-12 | Beam Pent. | 12FB | 6.3 | 2.250 | Horiz. Defl. Amp. | 28 | Max. 175 | Peak Positive 25 | Pulse Plate Voltage = 7500 Volts | 125 | 7500 | 5600 | 11300 | 3 | 3 | ..... |  |
| 6HF8 | T-6½ | Tri. Pentode | 9DX | 6.3 | 0.750 | Gen. Purpose Video Amp. | 1.0 | 200 | 2.0 | ..... | 4 | 17500 | 4000 | 70 | 70 | ..... |  |  |
| 6HG8 | T-6½ | Tri. Pentode | 9MP | 6.3 | 0.340 | VHF Amp. | 2.2 | 100 | 3.0 | ..... | 14 | 7500 | 12500 | 17 | 17 | ..... |  |  |
| 6HJ5 | Comp. T-12 | Beam Pent. | 12ES | 6.3 | 2.250 | Horiz. Defl. Amp. | 24 | Max. 135 | Peak Positive 22 | Pulse Plate Voltage = 7000 Volts | 80 | 7000 | 5000 | 10000 | 4.2 | 4.2 | ..... |  |
| 6HJ8 | T-6½ | Diode Pent. | 9CY | 6.3* | 0.450 | Video Det. T.V. I-F Amp. | 3.2 | 125 | 56 ^m | 125 | 11.5 | 200000 | 9300 | ..... | ..... | ..... |  |  |
| 6HK5 | T-5½ | Triode | 7GM | 6.3 | 0.190 | VHF Amp. | 2.3 | 135 | 1 | ..... | 12.5 | 5000 | 15000 | 75 | 75 | ..... |  |  |
| 6HL8 | T-6½ | Triode Pent. | 9AE | 6.3* | 0.600 | Tri. Sync. Sep. or Volt Amp. Pent. Video Amp. | 2.5 | 125 | 1 | ..... | 12.5 | 5000 | 7000 | 40 | 40 | ..... |  |  |
| 6HM5 | T-5½ | Triode | 7GM | 6.3 | 0.185 | VHF Amp. | 2.2 | 135 | 1 | ..... | 12.5 | 5000 | 14500 | 78 | 78 | ..... |  |  |
| 6HM6 | T-6½ | Pentode | 9PM | 6.3 | 0.300 | T.V. I-F Amp. | 2.5 | 125 | 56 ^m | 125 | 13 | 156000 | 15000 | ..... | ..... | ..... |  |  |
| 6HQ6 | T-5½ | Pentode | 6HQ6 | 6.3 | 0.300 | VHF Amp. | 2.4 | 125 | 56 ^m | 125 | 15 | 220000 | 10500 | ..... | ..... | ..... |  |  |
| 6HR6 | T-5½ | Pentode | 7BK | 6.3* | 0.450 | FM I-F Amp. | 3.0 | 200 | 68 ^m | 115 | 13.2 | 500000 | 8500 | ..... | ..... | ..... |  |  |
| 6HS6 | T-5½ | Pentode | 7BK | 6.3* | 0.450 | I-F Amp. | 3.0 | 150 | 68 ^m | 75 | 8.8 | 500000 | 9500 | ..... | ..... | ..... |  |  |
| 6HS8 | T-6½ | Twin Pentode | 9LW | 6.3 | 0.300 | AGC/Sync. Amplifier | 1.1 | 100 | g3=0V | 67.5 | 4.4 | IK = 8.5 Ma., Ig1 = 100 μa. | 100 | 140000 | 14000 | ..... | ..... |  |
| 6HT6 | T-6½ | Pentode | 9PM | 6.3 | 0.300 | T.V. I-F Amp. | 2.5 | 125 | 56 ^m | 125 | 15 | 143000 | 14000 | ..... | ..... | ..... |  |  |
| 6HU6 | T-6½ | Electron Ray | 9GA | 6.3 | 0.300 | Indicator | 0.6 | 250 | (Control Voltage = 10 Volts (to Close Light Pattern)). | | | | | | | | | |
| 6HW8 | T-6½ | Duo. Plate Sheet Beam | 9NQ | 6.3 | 0.300 | Duo. Plate Sheet Beam | 2.0 | 250 | 270 ^m | 250 | 13 | 1.4 | 4000 | ..... | ..... | ..... | ..... |  |
| 6HZ6 | T-5½ | Pentode | 7EN | 6.3* | 0.450 | FM Det. | 1.7 | 150 | 180 ^m | 100 | 3.2 | 3.2 | 110000 | 3400 | ..... | ..... | ..... |  |
| 6HZ8 | 9-T9 | Tri. Pentode | 9DX | 6.3 | 1.125 | Gen. Pur. Tri. Video Amp. | 1.0 | 200 | 2.0 | ..... | 3.5 | ..... | 4000 | 70 | 70 | ..... |  |  |
| 6J4 GB-6J4WA (3) | T-5½ | Triode | 7BQ | 6.3 | 0.400 | Amplifier | 2.5 | 150 | 100 ^m | ..... | 15.0 | ..... | 4500 | 12000 | 55 | 55 | ..... |  |
| 6J5 6J5GT | Metal T-9 | Triode | 6Q | 6.3 | 0.300 | Amplifier | 2.75 | 250 | 8.0 | ..... | 9.0 | ..... | 7700 | 2600 | 20 | 20 | ..... |  |
| 6J6 6J6A 6J6WA (3) | T-5½ | Duotriode | 7BF | 6.3 | 0.450 | VHF Osc. VHF Amp. Mixer | 1.65 | 150 | 10.0 | ..... | 30.0 | ..... | 7100 | 5300 | 38 | 3500 | | |
| 6J7 6J7G 6J7GT | Metal ST-12 T-9 | Pentode | 7R 7R 7R | 6.3 | 0.300 | A-F Amp. | 1.92 | 250 | 3.0 | 100 | 2.0 | 0.5 | 1.0 Meg < | 1225 | ..... | ..... |  |  |
| 6J9 | T-6½ | Triple Tri. | 10G | 6.3* | 0.450 | R-F Amp. Osc. & Mixer | 2.0 | 125 | 1 | ..... | 6.0 | ..... | 11000 | 5200 | 57 | 57 | ..... |  |
| 6J10 | Comp. T-9 | Double Pent. | 12BT | 6.3 | 0.950 | FM Disc. Beam Amp. | | 122 | 200-400 ^m | 100 | 0.49 | 9.8 | 100000 | 6500 | | 330000 | 5000 | 4200 |
| 6J11 | Comp. T-9 | Duo. Pent. | 12BW | 6.3 | 0.800 | T.V. I-F Amp. | 3.1 | 125 | 56 ^m | 125 | 11 | 3.8 | 200000 | 13000 | ..... | ..... | ..... |  |
| 6JA8 | T-6½ | Tri. Tetrode | 9QF | 6.3 | 0.750 | Sync. Sep. Video Amp. | 1.0 | 200 | 2 | ..... | 3.5 | ..... | 19000 | 3700 | 70 | 70 | ..... |  |
| 6JB6 | Novar T-12 | Pentode | 9QL | 6.3 | 1.200 | Horiz. Defl. Amp. | 17.5 | 250 | 22.5 | 150 | 70 | 2.1 | 15000 | 7100 | ..... | ..... | ..... |  |
| 6JC6 | T-6½ | Pentode | 9PM | 6.3 | 0.300 | T.V. I-F Amp. | 2.5 | 125 | 56 ^m | 125 | 13 | 3.2 | 180000 | 15000 | ..... | ..... | ..... |  |



AVERAGE CHARACTERISTICS

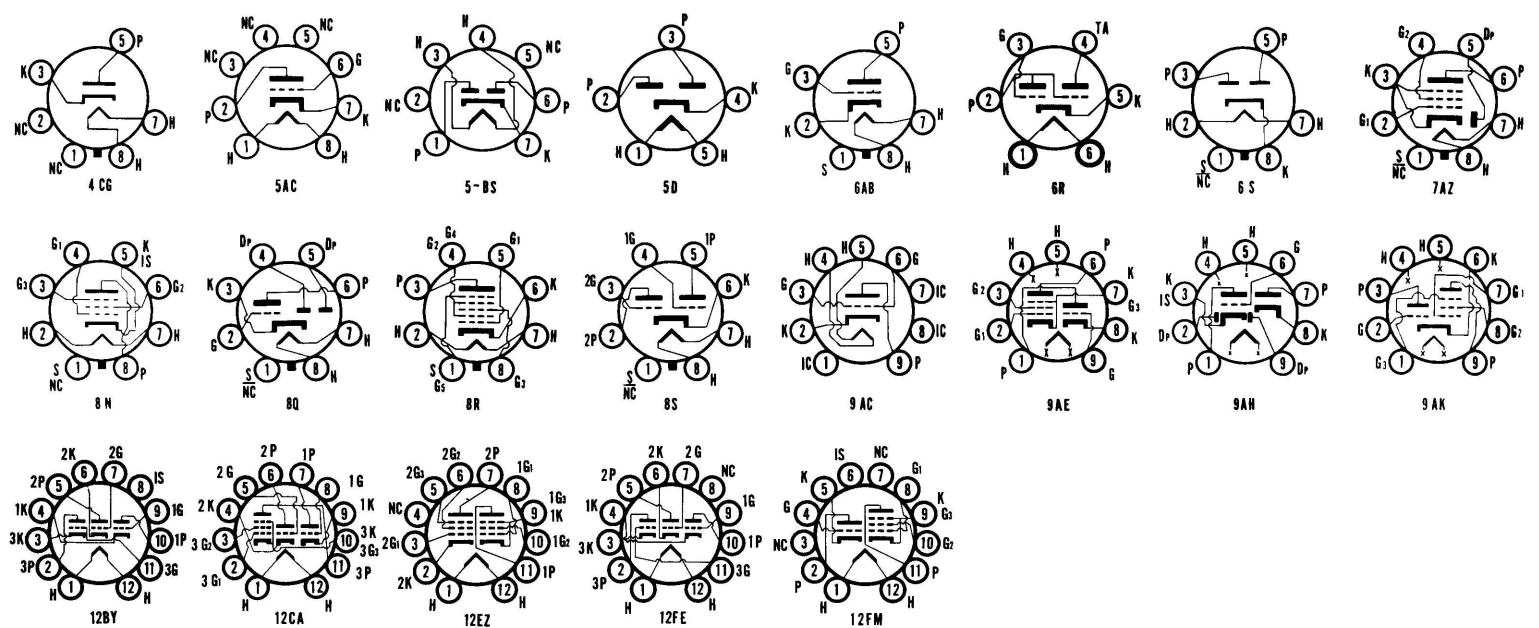
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|----------------------------|--------------|---------|-------|---------------------------------------|--------------------------------|------------------------------|------------------------------------|-------------------|----------------------------|--------------------|------------------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6JC8 | T-6½ | Tri. Pentode | 9PA | 6.3* | 0.450 | VHF Osc. VHF Amp. | 1.7 2.3 | 125 125 | 1.0 1.0 | 125 125 | 12 9 | 2.2 2.2 | 6000 300000 | 6500 5500 | 40 | ..... | ..... |
| 6JD6 | T-6½ | Pentode | 9PM | 6.3 | 0.300 | T.V. I-F Amp. | 2.5 | 125 | 56 [■] | 125 | 15 | 4.0 | 160000 | 14000 | ..... | ..... | ..... |
| 6JE6 | Novar T-12 | Pentode | 9QL | 6.3 | 2.500 | Horiz. Defl. Amp. | 24.0 | 175 | 25 | 125 | 115 | 5.0 | 5500 | 10500 | 3.3 | ..... | ..... |
| 6JE8 | T-6½ | Tri. Pentode | 9DX | 6.3 | 0.780 | Gen. Purpose Video Amp. | 1.0 4.0 | 200 250 | 2.0 82 [■] | 170 | 22 | 4.5 4.0 | 140000 | 4200 12000 | 70 | ..... | ..... |
| 6JH6 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | T.V. I-F Amp. | 2.3 | 125 | 56 [■] | 125 | 14 | 3.6 | 260000 | 8000 | ..... | ..... | ..... |
| 6JK6 | T-5½ | Pentode | 7CM | 6.3 | 0.350 | T.V. I-F Amp. | 2.5 | 125 | 68 [■] | 125 | 11.5 | 3.9 | 150000 | 18000 | ..... | ..... | ..... |
| 6JK8 | T-6½ | Duotriode | 9AJ | 6.3 | 0.400 | FM Osc. FM Amp. | 1.0 2.0 | 100 135 | 1.0 1.2 | ..... | 10 | ..... | 8000 5400 | 6800 13000 | 55 70 | ..... | ..... |
| 6JL6 | T-5½ | Pentode | 7CM | 6.3 | 0.350 | T.V. I-F Amp. | 2.5 | 125 | 68 [■] | 60 | 12.5 | 4.0 | 120000 | 15500 | ..... | ..... | ..... |
| 6JL8 | T-6½ | Triode Pent. | 9DX | 6.3 | 0.750 | Voltage Amp. Power Amp. | 2.0 5.0 | 150 300 | 150 [■] 3.5 | ..... | 10 30 | 7.5 | 7500 60000 | 4700 11500 | 35 | ..... | 5000 1800 |
| 6JN8 | T-6½ | Triode Pent. | 9FA | 6.3* | 0.450 | Oscillator Voltage Amp. | 2.5 2.5 | 125 125 | 1 1 | 125 | 13.5 12.0 | 4.0 | 5400 200000 | 8500 7500 | 46 | ..... | ..... |
| 6JT8 | T-9 | Triode Pent. | 9DX | 6.3 | 0.725 | Voltage Amp. Video Amp. | 1.0 4.0 | 250 200 | 2 82 [■] | 100 | 1.5 17.0 | 3.5 | 37000 50000 | 2700 20000 | 100 | ..... | ..... |
| 6JU8 | T-6½ | Quadruple Diode | 9PQ | 6.3 | 0.600 | Color Det., FM Multiplex Det. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6JV8 | T-6½ | Triode Pent. | 9DX | 6.3* | 0.600 | Sync. Sep. Video Amp. | 1.1 4.0 | 200 200 | 2 2.9 | 200 | 4 22 | 4 | 17500 150000 | 4000 10700 | 70 | ..... | ..... |
| 6JZ8 | Comp. T-9 | Triode Pent. | 12DZ | 6.3 | 0.600 | Vert. Osc. Vert. Defl. Amp. | 1.0 7.0 | 150 120 | 5 8 | ..... | 3.3 46 | 4 | 11300 11700 | 1900 7100 | 21.5 | ..... | ..... |
| 6K6GT | T-9 | Power Pent. | 7S | 6.3 | 0.400 | S.T. A1 Amp. | 9.3 | 100 250 315 | 7.0 18.0 21.0 | 100 250 250 | 9.0 32.0 25.5 | 1.6 5.5 4.0 | 104000 68000 75000 | 1500 2300 2100 | ..... | 12000 7600 9000 | 350 3400 4500 |
| 6K7 | Metal | Pentode | 7R | 6.3 | 0.300 | R-F Amp. | 3.0 | 100 250 250 | 1.0 3.0 3.0 | 100 100 125 | 9.5 7.0 10.5 | 2.7 1.7 2.6 | 150000 800000 600000 | 1650 1450 1650 | ..... | ..... | ..... |
| 6K8 | Metal | Tri. Hexode | 8K | 6.3 | 0.300 | Mixer Osc. | .825 | 250 100 | 3.0 100 | 100 50,000 | 2.5 | 6.0 | 600000 | 350 ^A | ..... | ..... | ..... |
| 6K11 | Comp. T-9 | Triple Triode | 12BY | 6.3* | 0.600 | Gen. Purpose | 2.7 0.3 0.3 | 250 250 250 | 8.5 2.0 2.0 | ..... | 10.5 1.2 1.2 | ..... | 7700 62500 62500 | 2200 1600 1600 | 17 100 100 | ..... | ..... |
| 6KA8 | T-6½ | Triode Pent. | 9PV | 6.3* | 0.600 | Sync. Sep. AGC Amp. | 1.1 2.0 | 200 150 | 2 180 [■] | 100 | 4 4 | 2.8 | 17500 100000 | 4000 4400 | 70 | ..... | ..... |
| 6KD8 | T-6½ | Triode Pent. | 9AE | 6.3 | 0.400 | VHF Osc. VHF Mixer | 2.5 3.0 | 125 125 | 1 1 | ..... | 13.5 110 | 9.5 3.5 | 200000 | 7500 5000 | 40 | ..... | ..... |
| 6KE8 | T-6½ | Triode Pent. | 9DC | 6.3 | 0.400 | VHF Osc. VHF Mixer | 2.0 2.0 | 125 125 | 68 [■] 33 [■] | | 13 10 | 2.8 | 5000 125000 | 8000 12000 | 40 | ..... | ..... |
| 6KF8 | T-6½ | Double Pent. | 9FG | 6.3 | 0.300 | Sync. Sep. AGC Amp. | 1.1 1.1 | 100 100 | G3=-10 G3=0 | 67.5 67.5 | ..... | 8.4 3.8 | 1k = 8.5 Ma. 1k = 9.5 Ma. | ..... | ..... | ..... | ..... |
| 6KL8 | T-6½ | Diode Pent. | 9LQ | 6.3 | 0.300 | Detector R-F I-F Amp. | 3.0 100 | 100 2.2 Meg. ⁴ | 100 | ..... | 5.5 | 2.2 | 550000 | 4300 | ..... | ..... | ..... |
| 6KM8 | T-6½ | Diode Triple Plate Tetrode | 9QG | 6.3 | 0.300 | Freq. Divider Key in Vibrato Circuits | 1.0 | 100 | 2.2 Meg. ⁴ | 100 | P1 2.3 P2 2.1 P3 2.1 | 3.3 3.8 3.8 | 120000 100000 100000 | 2000 1800 1800 | ..... | ..... | ..... |
| 6KN8 | T-6½ | Twin Triode | 9AJ | 6.3 | 0.400 | VHF Amp. | 2.2 | 110 | 1 | ..... | 16 | ..... | 2800 | 16000 | 45 | ..... | ..... |
| 6KR8 | T-6½ | Triode Pent. | 9DX | 6.3 | 0.750 | Gen. Pur. Amp. Video Amp. | 2.0 5.0 | 125 200 | 68 [■] 82 [■] | | 15 100 | 3.0 | 4400 6000 | 10400 20000 | 46 | ..... | ..... |

(1) See Frontal Section. (2) Design Maximum Values. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) † Maximum Signal. ‡ Filamentary Type. †† Conversion Transconductance. ‡‡ Plate to Plate. ††† Cathode Resistor (ohms).



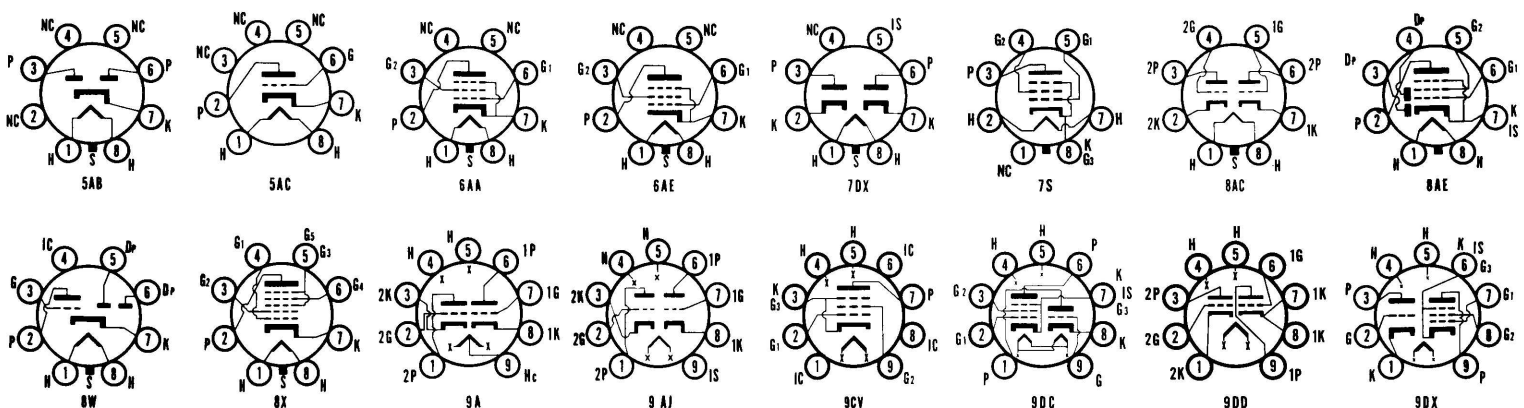
SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Res. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------------|---------------------------------|----------------------|--------------|---------|-------|--|--------------------------------|-------------|--|--------------|-------------------|---|-----------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6KS8 | T-6½ | Triode Pent. | 9DX | 6.3* | 0.600 | Gen. Pur. Amp. Video Amp. | 1.1 3.75 | 200 150 | 2 150 | 150 | 4.0 20.0 | 4.5 | 17500 150000 | 4000 9500 | 70 | ..... | ..... |
| 6KT8 | T-6½ | Triode Pent. | 9QP | 6.3 | 0.600 | Sync. Sep. I-F Amp. | 1.0 2.5 | 250 125 | 2 1 | 125 | 1.8 12.0 | 4.5 | 31500 150000 | 3200 10000 | 100 | ..... | ..... |
| 6KU8 | T-9 | Double Diode Pentode | 9LT | 6.3 | 0.725 | Phase Det. Video Amp. | 4.0 | 200 | Voltage Drop with Ib = 2 Ma. = 10 Volts. | | 17 | 3.5 | 50000 | 20000 | ..... | ..... |  |
| 6KV8 | T-6½ | Triode Pent. | 9DX | 6.3 | 0.775 | Video Amp. | 5.0 | 200 | 68 | 125 | 20 | 4.0 | 75000 | 23000 | ..... | ..... |  |
| 6KZ8 | T-6½ | Triode Pent. | 9FZ | 6.3 | 0.450 | VHF Osc. VHF Mixer | 1.0 | 200 | -2 | ..... | 4 | ..... | 17500 | 400 | 70 | ..... | ..... |
| | | | | | | | 2.5 | 125 | 1 | 125 | 13.5 | 4.0 | 5400 | 8500 | 46 | ..... | ..... |
| 6L6 | Metal | Beam Pent. | 7S | 6.3 | 0.900 | S.T. A1 Amp. S.T. A1 Amp. P.P. A1 Amp. P.P. AB1 Amp. P.P. AB2 Amp. | 20.9 | 250 | 14.0 | 250 | 72.0 | 5.0 | 22500 | 6000 | ..... | 2500 | 6500 |
| | | | | | | | 350 | 18.0 | 250 | 54.0 | 2.5 | 33000 | 5200 | ..... | 4200 | 10800 | |
| 6L6GB | T-12 | Beam Pent. | 7S | 6.3 | 0.900 | P.P. AB1 Amp. P.P. AB2 Amp. | 270 | 17.5 | 270 | 134-155† | 11-17† | 23500 | 5700 | ..... | 5000† | 17500 | |
| | | | | | | | 360 | 22.5 | 270 | 88-132† | 5-15† | ..... | ..... | 6600† | 26500 | | |
| 6L6GC | T-12 | Beam Pent. | 7S | 6.3 | 0.900 | P.P. AB1 Amp. P.P. AB1 Amp. P.P. AB1 Amp. | 30 | 360 | 22.5 | 270 | 88-132† | 5-15† | ..... | ..... | ..... | 6600† | 26500 |
| | | | | | | | 360 | 22.5 | 270 | 88-140† | 5-11† | ..... | ..... | 3800† | 18000 | | |
| 6L7 | Metal | Heptode | 7T | 6.3 | 0.300 | Mixer Amp. Amplifier | 1.65 | 250 | 6.0 | 150 | 3.3 | 9.2 | 1 Meg. < | 350* | (G3 = Neg. 15 Volts) | ..... | ..... |
| | | | | | | | 250 | 3.0 | 100 | 5.3 | 6.5 | 600000 | 1100 | (G3 = Neg. 3.0 Volts) | ..... | ..... |  |
| 6LB8 | T-9 | Triode Pent. | 9DX | 6.3 | 0.725 | Video Amp. | 2.0 | 125 | 68 | 100 | 13.0 | 3.5 | 6000 | 5000 | 30 | ..... | ..... |
| 6LC8 | T-6½ | Triode Pent. | 9QY | 6.3* | 0.600 | Sync. Sep. AGC Amp. | 1.1 | 200 | 2 | ..... | 4.0 | ..... | 17500 | 4000 | 70 | ..... | ..... |
| | | | | | | | 2.0 | 150 | 180 | 100 | 4.0 | 2.8 | 100000 | 4400 | ..... | ..... |  |
| 6M11 | Comp. T-9 | Pentode Duotriode | 12CA | 6.3 | 0.750 | Gen. Purpose | 3.1 | 125 | 56 | 125 | 11 | 3.4 | 200000 | 13000 | ..... | ..... |  |
| 6N7GT | Metal | Duotriode | 8B | 6.3 | 0.800 | Power Amp. Driver | 1.1 | 300 | 0.0 | ..... | 17.5-35† | Per Pl., Ct. B Push-Pull Oper., Zero Sig. | 8000† | 10000 | ..... | ..... |  |
| | | | | | | | 250 | 5.0 | ..... | 6.0 | Sections Paralled | 11300 | 3100 | 35 | (Class A Driver) | | |
| 6Q7 | Metal T-9 | Duodiode Tri. | 7V | 6.3 | 0.300 | Det. Amp. | 0.55 | 100 | 1.5 | ..... | 0.8 | ..... | 58000 | 1200 | 70 | ..... | ..... |
| 6Q7GT | T-9 | Duodiode Tri. | 7V | 6.3 | 0.300 | Det. Amp. | 0.55 | 250 | 3.0 | ..... | 1.1 | ..... | 58000 | 1200 | 70 | ..... | ..... |
| 6Q11 | Comp. T-9 | Triple Triode | 12BY | 6.3* | 0.600 | Gen. Purpose | 3.0 | 150 | 0 | ..... | 22 | ..... | 7000 | 2500 | 18 | ..... | ..... |
| | | | | | | | 1.2 | 100 | 1.0 | ..... | 0.5 | ..... | 80000 | 1250 | 100 | ..... | ..... |
| 6R7 | Metal | Duodiode Tri. | 7V | 6.3 | 0.300 | Det. Amp. | 2.75 | 250 | 9.0 | ..... | 9.5 | ..... | 8500 | 1900 | 16 | ..... | ..... |
| | | | | | | | 8.5 | 250 | 8.0 | ..... | 24 | ..... | 3700 | 4500 | 16.5 | ..... | ..... |
| 6SA7 | Metal T-9 | Heptode | 8R | 6.3 | 0.300 | Converter | 1.1 | 100 | 2.0 | 100 | 3.3 | 8.5 | 500000 | 425* | ..... | ..... | ..... |
| | | | | | | | 250 | 2.0 | 100 | 3.5 | 8.5 | 1.0 Meg. | 450* | ..... | ..... | ..... |  |
| 6SA7GT | T-9 | Heptode | 8AD | 6.3 | 0.300 | Converter | 1.1 | 100 | 2.0 | 100 | 3.3 | 8.5 | 500000 | 425* | ..... | ..... |  |
| 6SA7GT | T-9 | Heptode | 8AD | 6.3 | 0.300 | Converter | 1.1 | 100 | 2.0 | 100 | 3.3 | 8.5 | 500000 | 425* | ..... | ..... |  |
| 6SB7Y | Metal | Heptode | 8R | 6.3 | 0.300 | Converter | 2.2 | 250 | 1.5 | 100 | 4.0 | 8.5 | ..... | 880* | ..... | ..... |  |
| 6SC7 | Metal | Duotriode | 8S | 6.3 | 0.300 | Amplifier | ..... | 250 | 2.0 | ..... | 2.0 | ..... | 53000 | 1325 | 70 | (Each Triode) | ..... |
| 6SF5 | Metal | Triode | 6AB | 6.3 | 0.300 | A-F Amp. | ..... | 250 | 2.0 | ..... | 0.9 | ..... | 66000 | 1500 | 100 | ..... | ..... |
| 6SF7 | Metal | Diode Pent. | 7AZ | 6.3 | 0.300 | Det. Amp. | 3.85 | 100 | 1.0 | 100 | 12 | 3.4 | 200000 | 1975 | ..... | ..... |  |
| | | | | | | | 250 | 1.0 | 100 | 12.4 | 3.3 | 700000 | 2050 | ..... | ..... |  |  |
| 6SG7 | Metal | Pentode | 8BK | 6.3 | 0.300 | R-F Amp. | 3.3 | 100 | 1.0 | 100 | 8.2 | 3.2 | 250000 | 4100 | ..... | ..... |  |
| | | | | | | | 250 | 1.0 | 125 | 11.8 | 4.4 | 900000 | 4700 | ..... | ..... |  |  |
| 6SH7 | Metal | Pentode | 8BK | 6.3 | 0.300 | R-F Amp. | 3.3 | 100 | 1.0 | 100 | 5.3 | 2.1 | 350000 | 4000 | ..... | ..... |  |
| | | | | | | | 250 | 1.0 | 150 | 10.8 | 4.1 | 900000 | 4900 | ..... | ..... |  |  |
| 6SJ7 | Metal T-9 | Pentode | 8N | 6.3 | 0.300 | A-F Amp. | 2.8 | 100 | 3.0 | 100 | 2.9 | 0.9 | 700000 | 1575 | ..... | ..... |  |
| | | | | | | | 250 | 3.0 | 100 | 3.0 | 0.8 | 1.0 Meg < | 1650 | ..... | ..... |  |  |
| 6SJ7WGT (3) | T-9 | Pentode | 8N | 6.3 | 0.300 | A-F Amp. | 2.8 | 100 | 3.0 | 100 | 2.9 | 0.9 | 700000 | 1575 | ..... | ..... |  |
| 6SJ7WGT(3) | T-9 | Pentode | 8N | 6.3 | 0.300 | A-F Amp. | 2.8 | 100 | 3.0 | 100 | 2.9 | 0.9 | 700000 | 1575 | ..... | ..... |  |
| 6SK7 | Metal T-9 | Pentode | 8N | 6.3 | 0.300 | R-F Amp. | 4.4 | 100 | 1.0 | 100 | 13.0 | 4.0 | 120000 | 2350 | ..... | ..... |  |
| | | | | | | | 250 | 3.0 | 100 | 9.2 | 2.6 | 800000 | 2000 | ..... | ..... |  |  |



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|---------------------|---------------------------------|---------------|--------------|--------------|-----------------|----------------------------------|--------------------------------|---|--------------------------------------|---------------------------------|--|--|---|--|---|--|--|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 7A5 | Lock-in | Beam Pent. | 6AA | 6.3 | 0.750 | Power Amp. | 6.0 | 110 125 | 7.5 9.0 | 110 125 | 40.0 44.0 | 3.0 3.3 | 16000 17000 | 5800 6000 | ..... | 2500 2700 | 1500 2200 |
| 7A6 | Lock-in | Duodiode | 7DX | 6.3 | 0.150 | Det. Rect. | ..... | 150 A.C. Volts Per Plate, RMS, 8 Ma. Current Output Per Plate. | | | | | | | | | |
| 7A7 | Lock-in | Pentode | 8V | 6.3 | 0.300 | R-F Amp. | 4.4 | 100 250 | 1.0 3.0 | 100 100 | 13.0 9.2 | 4.0 2.6 | 120000 800000 | 2350 2000 | ..... | ..... | ..... |
| 7A8 | Lock-in | Octode | 8U | 6.3 | 0.150 | Converter | 1.1 | 100 250 | 3.0 3.0 | 75 100 | 1.8 3.0 | 2.7 3.2 | 650000 700000 | 375 ^A 550 ^A | (Ga = 100 V., 2.8 Ma.) (Ga = 250 V thru 20K Ohms.) | | |
| 7AF7 | Lock-in | Duotriode | 8AC | 6.3 | 0.300 | Amplifier (per unit) | 2.75 | 100 100 250 | 0 3.0 10 | ..... ..... ..... | 10.8 5.0 9.0 | ..... ..... ..... | 6500 8400 7600 | 2600 1900 2100 | 17 16 16 | ..... ..... ..... | ..... ..... ..... |
| 7AG7 | Lock-in | Pentode | 8V | 6.3 | 0.150 | R-F Amp. | 2.2 | 250 | 250 ^M | 250 | 6.0 | 2.0 | 1.0 Meg | < 4200 | ..... | ..... | ..... |
| 7AK7 GB-7AK7 (3) | Lock-in | Pentode | 8V | 6.3 | 0.800 | R-F Amp. | 9.35 | 150 150 150 | 0 11 0 | 90 90 90 | 40 2.5 Max. 2.0 Max. | 21 0.45 60 Max. | 11500 | 6000 ..... ..... | ..... ..... ..... | ..... ..... ..... | ..... ..... ..... |
| 7AU7 | T-6½ | Duotriode | 9A | 7.0/ 3.5* | 0.300/ 0.600 | Amplifier | 3.0 | Characteristics Same as Type 12AU7A. (7AU7 Designed for Series String Receivers.) | | | | | | | | | |
| 7B4 | Lock-in | Triode | 5AC | 6.3 | 0.300 | Amplifier | ..... | 100 250 | 1.0 2.0 | ..... ..... | 0.4 0.9 | ..... ..... | 85000 66000 | 1150 1500 | 100 100 | ..... ..... | ..... ..... |
| 7B5 | Lock-in | Power Pent. | 6AE | 6.3 | 0.400 | Power Amp. | 9.35 | 100 250 315 | 7.0 18.0 21.0 | 100 250 250 | 9.0 32.0 25.5 | 1.6 5.5 4.0 | 104000 68000 75000 | 1500 2300 2100 | ..... ..... ..... | 12000 7600 9000 | 350 3400 4500 |
| 7B6 | Lock-in | Duodiode Tri. | 8W | 6.3 | 0.300 | Det. Amp. | 0.55 | 100 250 | 1.0 2.0 | ..... ..... | 0.4 0.9 | ..... ..... | 110000 91000 | 900 1100 | 100 100 | ..... ..... | ..... ..... |
| 7B7 | Lock-in | Pentode | 8V | 6.3 | 0.150 | R-F Amp. | 2.47 | 100 250 | 3.0 3.0 | 100 100 | 8.2 8.5 | 1.8 1.7 | 300000 750000 | 1675 1750 | ..... ..... | ..... ..... | ..... ..... |
| 7B8 | Lock-in | Heptode | 8X | 6.3 | 0.300 | Converter | 1.1 | 100 250 | 1.5 3.0 | 50 100 | 1.1 3.5 | 1.3 2.7 | 600000 360000 | 360 ^A 550 ^A | (Ga = 100 V., 2.0 Ma.) | | |
| 7C5 | Lock-in | Beam Pent. | 6AA | 6.3 | 0.450 | Power Amp. Class A1 Class AB1 | 13.2 | 180 250 315 250 285 | 8.5 12.5 13.0 15.0 19.0 | 180 250 225 250 285 | 29.0 45.0 34.0 70-79† 70-92† | 3.0 4.5 2.2 5-13† 4-13.5† | 58000 52000 77000 (Class AB1 Two Tubes) (Class AB1 Two Tubes) | 3700 4100 3750 10000† 8000† | 10000† 8000† | 5500 5000 8500 10000 14000 | 2000 4500 5500 10000 14000 |
| 7C6 | Lock-in | Duodiode Tri. | 8W | 6.3 | 0.150 | Det. Amp. | 0.66 | 100 250 | 0.0 1.0 | ..... ..... | 1.0 1.3 | ..... ..... | 100000 100000 | 850 1000 | 85 100 | ..... ..... | ..... ..... |
| 7C7 | Lock-in | Pentode | 8V | 6.3 | 0.150 | R-F Amp. | 1.1 | 100 250 | 3.0 3.0 | 100 100 | 1.8 2.0 | 0.4 0.5 | 1.2 Meg. 2.0 Meg. | 1225 1300 | ..... ..... | ..... ..... | ..... ..... |
| 7DJ8 | T-6½ | Duotriode | 9AJ | 7.0 | 0.300 | VHF Amp. | 2.2 | 90 | 1.3 | ..... | 15 | ..... | ..... | 12500 | 33 | ..... | ..... |
| 7ES8 | T-6½ | Duotriode | 9AJ | 7.2 | 0.300 | VHF Amp. | 1.8 | 90 | 1.4 | ..... | 15 | ..... | 2500 | 12500 | ..... | ..... | ..... |
| 7EY6 | T-9 | Beam Pent. | 7S | 7.2* | 0.600 | Vert. Defl. Amplifier | 11 | Max. Peak Positive Pulse Plate Voltage = 2500 Volts. Max. D.C. Cathode Current = 60 Ma. Characteristics Same as Type 6EY6. | | | | | | | | | |
| 7F7 | Lock-in | Duotriode | 8AC | 6.3 | 0.300 | A-F Amp. | 1.1 | 100 250 | 1.0 2.0 | ..... ..... | 0.65 2.3 | ..... ..... | 62000 44000 | 1125 1600 | 70 70 | ..... ..... | ..... ..... |
| 7F8 | Lock-in | Duotriode | 8BW | 6.3 | 0.300 | Osc. Amp. | 3.85 | 250 | 500 ^M | ..... | 6.0 | ..... | ..... | 3300 | 48 | ..... | ..... |
| GB-7F8W (3) | Lock-in | Duotriode | 8BW | 6.3 | 0.300 | Osc. Amp. | 3.5 | 250 | 200 ^M | ..... | 11.0 | ..... | ..... | 5200 | 50 | ..... | ..... |
| 7FC7 | T-6½ | Duotriode | 9DD | 7.2 | 0.300 | VHF Amp. | 1.9 | Characteristics Same as Type 6FC7. (7FC7 Designed for Series String Receivers.) | | | | | | | | | |
| 7GV7 | T-6½ | Triode Pent. | 9KN | 7.4 | 0.300 | VHF Osc. VHF Mixer | 2.0 2.0 | Characteristics Same as Type 6GV7. | | | | | | | | | |
| 7H7 | Lock-in | Pentode | 8V | 6.3 | 0.300 | R-F Amp. | 2.75 | 100 250 | 1.5 180 ^M | 100 150 | 7.5 10.0 | 2.6 3.2 | 350000 800000 | 4000 4000 | ..... ..... | ..... ..... | ..... ..... |
| 7HG8 | T-6½ | Tri. Pentode | 9MP | 7.2 | 0.300 | VHF Amp. | 2.2 | Characteristics Same as Type 6HG8. (7HG8 Designed for Series String Receivers.) | | | | | | | | | |
| 7J7 | Lock-in | Tri. Heptode | 8BL | 6.3 | 0.300 | Hep. Mixer Tri. Osc. | 0.55 1.74 | 100 250 100 250 | 3.0 2.0 0.05 Meg. 0.05 Meg. | 100 100 | 1.5 1.4 3.2 5.0 | 2.6 2.8 1.5 Meg. (Triode Grid Current 0.3 Ma.) (Triode Grid Current 0.4 Ma.) | 50000 290 ^A | 280 ^A 290 ^A ..... ..... | ..... ..... ..... ..... | ..... ..... ..... ..... | ..... ..... ..... ..... |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|---------------|---------------------------------|-----------------------|--------------|--------------|-----------------|------------------------------|--------------------------------|---|--------------------------------------|--------------------------|--------------------------|--------------------------|--|--------------------------------------|---|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 7K7 | Lock-in | Duodiode Tri. | 8BF | 6.3 | 0.300 | Det. Amp. | 1.1 | 250 | 2.0 | .... | 2.3 | ... | 44000 | 1600 | 70 | .... | .... |
| 7L7 | Lock-in | Pentode | 8V | 6.3 | 0.300 | R-F Amp. | 4.4 | 100 250 | 1.0 1.5 | 100 100 | 5.5 4.5 | 2.4 1.5 | 100000 1.0 Meg. | 3000 3100 | .... | .... | .... |
| 7N7 | Lock-in | Duotriode | 8AC | 6.3 | 0.600 | Amplifier | 2.75 | 90 250 | 0.0 8.0 | .... .... | 10.0 9.0 | .... .... | 6700 7700 | 3000 2600 | 20 | .... | .... |
| 7Q7 | Lock-in | Heptode | 8AL | 6.3 | 0.300 | Converter | 1.1 | 100 250 | 2.0 2.0 | 100 100 | 3.3 3.5 | 8.5 8.5 | 500000 1.0 Meg. | 525 ^A 550 ^A | (Osc. Grid Resistor 20000) (Osc. Grid Current 0.5 Ma.) | .... | .... |
| 7R7 | Lock-in | Duodi. Pent. | 8AE | 6.3 | 0.300 | Det. Amp. | 2.2 | 100 100 250 250 | 2.0 1.0 2.0 1.0 | 100 100 100 100 | 3.4 5.5 3.5 5.7 | 1.0 2.2 1.0 2.1 | 500000 350000 1800000 1000000 | 2100 3000 2200 3200 | .... | .... | .... |
| 7S7 | Lock-in | Tri. Heptode | 8BL | 6.3 | 0.300 | Hep. Mixer Tri. Osc. | 0.66 | 100 250 100 250 | 2.0 2.0 0.05 Meg. 0.05 Meg. | 100 100 | 1.9 1.8 3.0 5.0 | 3.0 3.0 | 500000 1.25 Meg. | 500 ^A 525 ^A | .... | .... | .... |
| 7V7 | Lock-in | Pentode | 8V | 6.3 | 0.450 | R-F Amp. | 4.4 | 300 | 160 [¶] | 150 | 10.0 | 3.9 | 300000 | 5800 | .... | .... | .... |
| 7W7 | Lock-in | Pentode | 8BJ | 6.3 | 0.450 | R-F Amp. | 4.4 | Characteristics Same as Type 7V7, Except Capacitances. | | | | | | | | | |
| 7X7 | Lock-in | Duodiode Tri. | 8BZ | 6.3 | 0.300 | Det. Amp. | 0.55 | 100 250 | 0 1.0 | .... .... | 1.2 1.9 | .... | 85000 67000 | 1000 1500 | 85 100 | .... | .... |
| 7Y4 | Lock-in | Duodiode | 5AB | 6.3 | 0.500 | F-W Rect. | .... | 325 A.C. Volts Per Plate, RMS, 70 Ma. Output Current. Condenser Input to Filter. Choke Input to Filter. | | | | | | | | | |
| 7Z4 | Lock-in | Duodiode | 5AB | 6.3 | 0.900 | F-W Rect. | .... | 325 A.C. Volts Per Plate, RMS, 100 Ma. Output Current. Condenser Input to Filter. Choke Input to Filter. | | | | | | | | | |
| 8A8 | T-6½ | Triode Pent. | 9DC | 8.4 | 0.300 | VHF Osc. VHF Amp. | 5.5 8.25 | Characteristics Same as Type 9A8. | | | | | | | | | |
| 8AU8 8AU8A | T-6½ | Tri. Pentode | 9DX | 8.4* | 0.450 | Tri. Amp. Pent. Amp. | 2.75 3.3 | Characteristics Same as Type 6AU8. (8AU8 and 8AU8A Designed for Series String Operation.) 8AU8A Characteristics Same as Type 6AU8A. | | | | | | | | | |
| 8AW8A | T-6½ | Tri. Pentode | 9DX | 8.4* | 0.450 | Sync. Sep. Video Amp. | 1.1 3.57 | Characteristics Same as Type 6AW8A. (8AW8A Designed for Series String Receivers.) | | | | | | | | | |
| 8B10 | Comp. T-9 | Duodiode Duotriode | 12BF | 6.3* | 0.600 | Horiz. Phase Det./Osc. | 3.0 | Characteristics Same as Type 6B10. (8B10 Designed for Series String Receivers.) | | | | | | | | | |
| 8BA8A | T-6½ | Tri. Pentode | 9DX | 8.4* | 0.450 | Sync. Sep. Video Amp. | 2.2 3.57 | Characteristics Same as Type 6BA8A. (8BA8A Designed for Series String Receivers.) | | | | | | | | | |
| 8BH8 | T-6½ | Tri. Pentode | 9DX | 8.4* | 0.450 | Tri. Amp. Pent. Amp. | 2.75 3.3 | Characteristics Same as Type 6BH8. (8BH8 Designed for Series String Receivers.) | | | | | | | | | |
| 8BN8 | T-6½ | Duodiode Tri. | 9ER | 8.4* | 0.450 | Amplifier | 1.65 | Characteristics Same as Type 6BN8. (8BN8 Designed for Series String Receivers.) | | | | | | | | | |
| 8BQ5 | T-6½ | Beam Pent. | 9CV | 8.0* | 0.600 | P.P.AB1 Amp. | 13.2 | Characteristics Same as Type 6BQ5. (8BQ5 Designed for Series String Receivers.) | | | | | | | | | |
| 8CG7 | T-6½ | Duotriode | 9AJ | 8.4* | 0.450 | Amplifier | 3.85 | Characteristics Same as Type 6CG7. (8CG7 Designed for Series String Receivers.) | | | | | | | | | |
| 8CM7 | T-6½ | Duotriode | 9ES | 8.4* | 0.450 | Vert. Osc. Vert. Defl. A. | 1.37 5.5 | Characteristics Same as Type 6CM7. (8CM7 Designed for Series String Receivers.) | | | | | | | | | |
| 8CN7 | T-6½ | Duodiode Tri. | 9EN | 8.4/ 4.2* | 0.225/ 0.450 | Det. Amp. | 1.1 | Characteristics Same as Type 6CN7. (8CN7 Designed for Series String Receivers.) | | | | | | | | | |
| 8CS7 | T-6½ | Duotriode | 9EF | 8.4* | 0.450 | Vert. Osc. Vert. Defl. A. | 1.37 5.5 | Characteristics Same as Type 6CS7. (8CS7 Designed for Series String Receivers.) | | | | | | | | | |
| 8CW5 | T-6½ | Beam Pent. | 9CV | 8.0* | 0.600 | A-F Pwr. Amp. | 13 | Characteristics Same as Type 6CW5. (8CW5 Designed for Series String Receivers.) | | | | | | | | | |
| 8CX8 | T-6½ | Tri. Pentode | 9DX | 8.0* | 0.600 | Tri. Amp. Video Amp. | 2.0 5.0 | Characteristics Same as Type 6CX8. (8CX8 Designed for Series String Receivers.) | | | | | | | | | |
| 8CY7 | T-6½ | Duotriode | 9LG | 7.9* | 0.600 | Vert. Osc. Vert. Defl. A. | 1.0 5.5 | Characteristics Same as Type 6CY7. (8CY7 Designed for Series String Receivers.) | | | | | | | | | |
| 8EB8 | T-6½ | Tri. Pentode | 9DX | 8.0* | 0.600 | A-F Amp. Video Amp. | 1.0 5.0 | Characteristics Same as Type 6EB8. (8EB8 Designed for Series String Receivers.) | | | | | | | | | |

(1) See Frontal Section.

(3) Has Special Mechanical and/or Life Characteristics.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

(2) Design Maximum Values.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

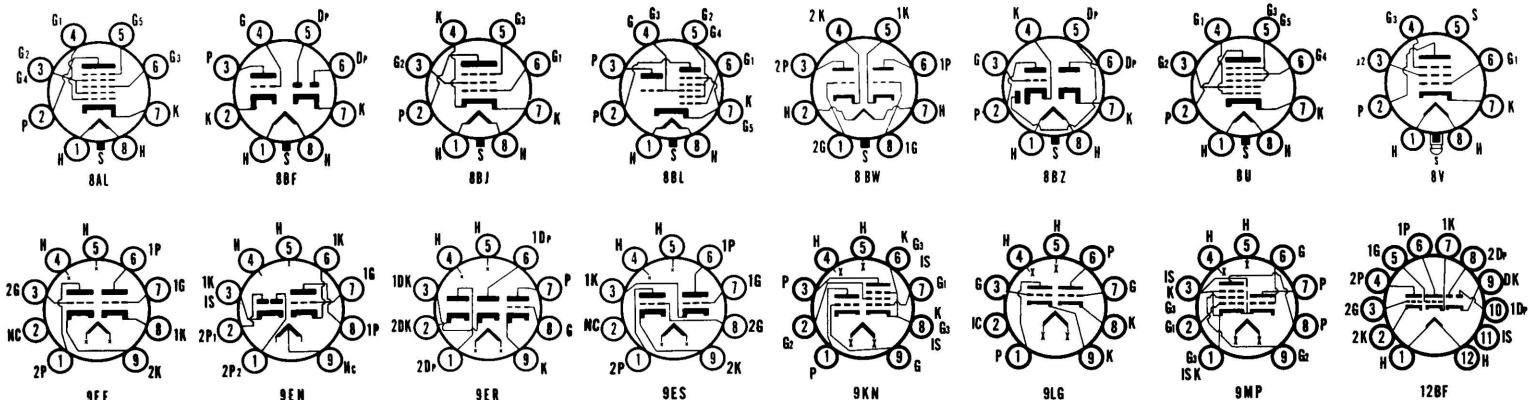
† Maximum Signal.

‡ Filamentary Type.

▲ Conversion Transconductance.

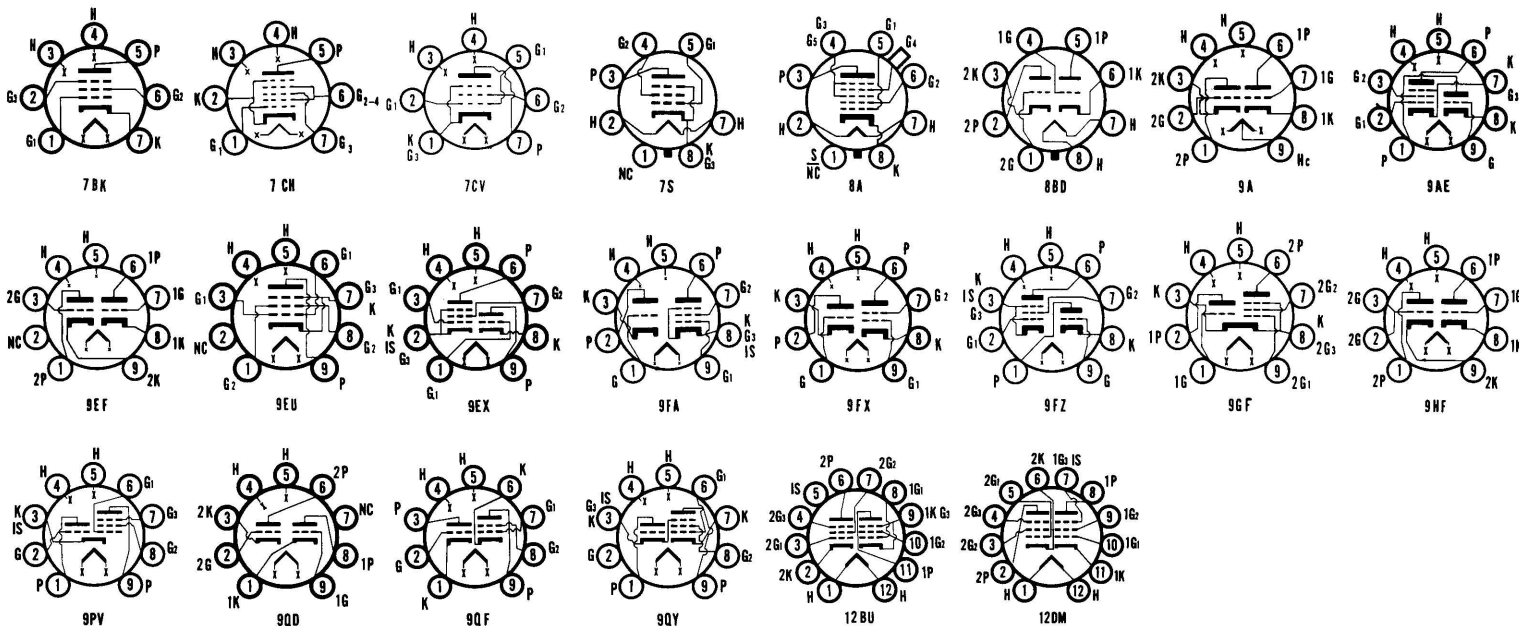
¶ Plate to Plate.

■ Cathode Resistor (ohms).



SYLVANIA TUBES

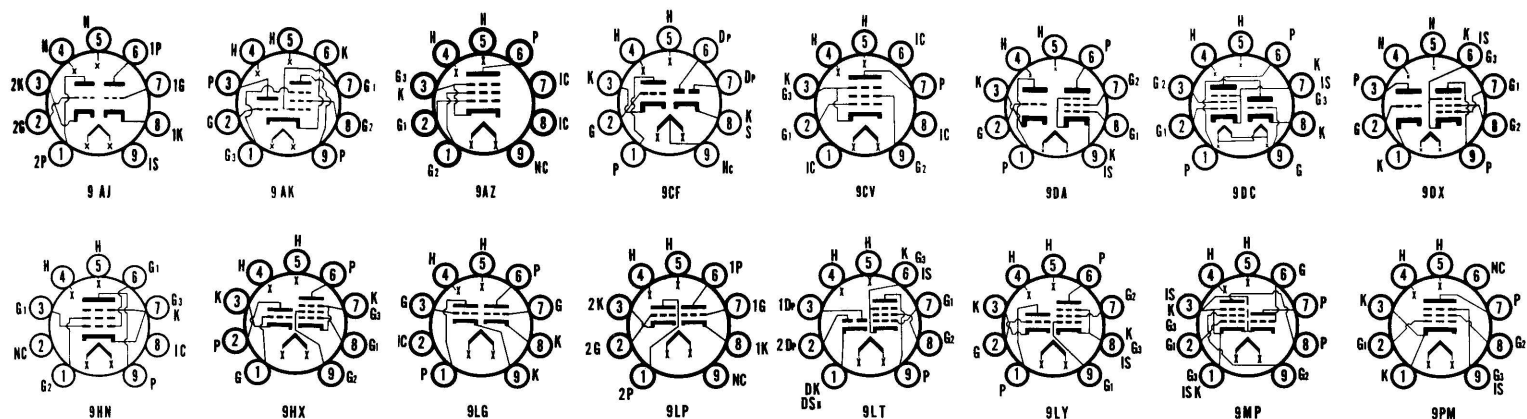
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--------|---------------------------------|-------------------|--------------|--------------|-----------------|----------------------------------|--------------------------------|--|------------------------------------|--------------|-------------------|--------------------|-------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 8EM5 | T-6½ | Beam Pent. | 9HN | 8.4* | 0.600 | Vert. Defl. Amplifier | 11 | Characteristics Same as Type 6EM5. (8EM5 Designed for Series String Receivers.) | | | | | | | | | |
| 8ET7 | T-6½ | Duodiode Pentode | 9LT | 8.0* | 0.600 | Horiz. Phase Det. Video A. | 5.0 | Characteristics Same as Type 6ET7. (8ET7 Designed for Series String Receivers.) | | | | | | | | | |
| 8FQ7 | T-6½ | Duotriode | 9LP | 8.4* | 0.450 | Gen. Purpose | 4.0 | Characteristics Same as Type 6FQ7. (8FQ7 Designed for Series String Receivers.) | | | | | | | | | |
| 8GN8 | T-6½ | Tri. Pentode | 9DX | 8.0* | 0.600 | Triode Amp. Video Amp. | 1.0 5.0 | Characteristics Same as Type 6GN8. (8GN8 Designed for Series String Receivers.) | | | | | | | | | |
| 8HG8 | T-6½ | Tri. Pentode | 9MP | 8.0* | 0.300 | VHF Amp. | 1.6 2.2 | Characteristics Same as Type 6HG8. (8HG8 Designed for Series String Receivers.) | | | | | | | | | |
| 8JE8 | T-6½ | Tri. Pentode | 9DX | 8.2* | 0.600 | Gen. Purpose Video Amp. | 1.0 4.0 | Characteristics Same as Type 6JE8. (8JE8 Designed for Series String Receivers.) | | | | | | | | | |
| 8JK8 | T-6½ | Duotriode | 9AJ | 8.4* | 0.300 | FM Osc. FM Amp. | 1.0 2.0 | 100 130 | 1.0 1.2 | ... | 5.3 10 | ... | 8000 5400 | 1800 13000 | 55 70 | ... | ... |
| 8JL8 | T-6½ | Triode Pent. | 9DX | 8.0* | 0.600 | Voltage Amp. Power Amp. | 2.0 5.0 | Characteristics Same as Type 6JL8. (8JL8 Designed for Series String Receivers.) | | | | | | | | | |
| 8JT8 | T-9 | Triode Pent. | 9DX | 7.7* | 0.600 | Voltage Amp. Power Amp. | 1.0 4.0 | Characteristics Same as Type 6JT8. (8JT8 Designed for Series String Receivers.) | | | | | | | | | |
| 8JV8 | T-6½ | Triode Pent. | 9DX | 8.5* | 0.450 | Sync. Sep. Video Amp. | 1.1 4.0 | Characteristics Same as Type 6JV8. (8JV8 Designed for Series String Receivers.) | | | | | | | | | |
| 8KA8 | T-6½ | Triode Pent. | 9PV | 8.4* | 0.450 | Sync. Sep. AGC Amp. | 1.1 2.0 | Characteristics Same as Type 6KA8. (8KA8 Designed for Series String Receivers.) | | | | | | | | | |
| 8KS8 | T-6½ | Triode Pent. | 9DX | 8.4* | 0.450 | Gen. Pur. Amp. Video Amp. | 1.1 3.75 | Characteristics Same as Type 6KS8. (8KS8 Designed for Series String Receivers.) | | | | | | | | | |
| 8LC8 | T-6½ | Triode Pent. | 9QY | 8.4* | 0.450 | Sync. Sep. AGC Amp. | 1.1 2.0 | Characteristics Same as Type 6LC8. (8LC8 Designed for Series String Receivers.) | | | | | | | | | |
| 9A8 | T-6½ | Tri. Pentode | 9DC | 9.0 | 0.300 | VHF Osc. VHF Amp. | 5.5 8.25 | Characteristics Same as Type 6B8L. | | | | | | | | | |
| 9AU7 | T-6½ | Duotriode | 9A | 9.4/ 4.7* | 0.225/ 0.450 | Amplifier | 3.0 | Characteristics Same as Type 7AU7. (9AU7 Designed for Series String Receivers.) | | | | | | | | | |
| 9BR7 | T-6½ | Duodiode Tri. | 9CF | 4.7* 9.4* | 0.600 0.300 | Det. Amp. | 2.75 | 250 | 200 [■] | ... | 10 | ... | 10900 | 4000 | 60 | ... | ... |
| 9BR8 | T-6½ | Tri. Pentode | 9FA | 9.45 | 0.300 | VHF Osc. VHF Amp. | 2.97 3.0 | 150 250 | 56 [■] 68 [■] | ... | 18 10 | ... | 5000 400000 | 8500 5200 | 40 | ... | ... |
| 9CG8A | T-6½ | Triode Pent. | 9GF | 9.5* | 0.300 | Osc. Mixer | 1.7 2.3 | Characteristics Same as Type 6CG8A. (9CG8A Designed for Series String Receivers.) | | | | | | | | | |
| 9CL8 | T-6½ | Tri. Tetrode | 9FX | 9.5* | 0.300 | VHF Osc. VHF Amp. | 2.97 3.0 | Characteristics Same as Type 6CL8. (9CL8 Designed for Series String Receivers.) | | | | | | | | | |
| 9DZ8 | T-6½ | Triode Beam Pent. | 9EX | 9.0 | 0.600 | A-F Voltage Amp. and Power Amp. | .82 7.15 | Characteristics Same as Type 6DZ8. (9DZ8 Designed for Series String Receivers.) | | | | | | | | | |
| 9EA8 | T-6½ | Triode Pent. | 9AE | 9.5* | 0.300 | Tri. VHF Amp. Pent. Amp. | 3.0 3.1 | Characteristics Same as Type 6EA8. (9EA8 Designed for Series String Receivers.) | | | | | | | | | |
| 9EF6 | T-9 | Beam Pent. | 7S | 9.4* | 0.600 | Vert. Defl. Amplifier | 11 | Characteristics Same as Type 6EF6. (9EF6 Designed for Series String Receivers.) | | | | | | | | | |
| 9GV8 | T-6½ | Triode Pent. | 9LY | 9.5* | 0.600 | Vert. Defl. Osc. Ver. Defl. Amp. | 0.5 7.0 | Characteristics Same as Type 6GV8. (9GV8 Designed for Series String Receivers.) | | | | | | | | | |
| 9KZ8 | T-6½ | Triode Pent. | 9FZ | 9.45* | 0.300 | VHF Osc. VHF Amp. | 2.5 2.5 | Characteristics Same as Type 6KZ8. (9KZ8 Designed for Series String Receivers.) | | | | | | | | | |
| 9U8A | T-6½ | Tri. Pentode | 9AE | 9.45* | 0.300 | VHF Osc. VHF Amp. | 2.5 3.0 | Characteristics Same as Type 6U8. (9U8A Designed for Series String Receivers.) | | | | | | | | | |
| 9X8 | T-6½ | Tri. Pentode | 9AK | 9.5* | 0.300 | VHF Osc. VHF Amp. | 1.65 2.2 | Characteristics Same as Type 6X8. (9X8 Designed for Series String Receivers.) | | | | | | | | | |
| 10AL11 | Comp. T-9 | Duo. Pentode | 12BU | 9.8* | 0.600 | FM Det. ST A1 Amp. | 1.7 10 | Characteristics Same as Type 6AL11. (10AL11 Designed for Series String Receivers.) | | | | | | | | | |
| 10BQ5 | T-6½ | Power Pent. | 9CV | 10.6* | 0.450 | A-F Pwr. Amp. | 12 | Characteristics Same as Type 6BQ5. (10BQ5 Designed for Series String Receivers.) | | | | | | | | | |



AVERAGE CHARACTERISTICS

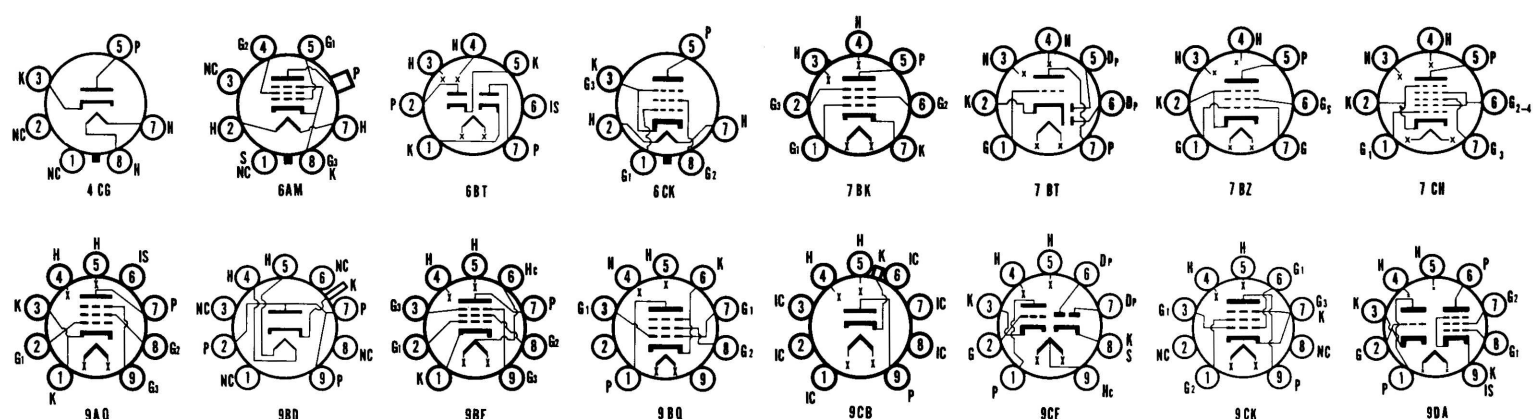
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--------|---------------------------------|----------------------|--------------|---------|-------|--------------------------------------|--------------------------------|---|--------------------------------------|--------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 10C8 | T-6½ | Tri. Pentode | 9DA | 10.5* | 0.300 | Tri. Amp. Pent. Amp. | 2.0 2.2 | 250 135 | 390 [■] 100 [■] | 135 | 7.3 11.5 | 3.2 | 12000 190000 | 4400 8000 | 53 ..... | ..... ..... | ..... ..... |
| 10DA7 | T-6½ | Duotriode | 9EF | 10.5* | 0.600 | Vert. Osc. Vert. Defl. A. | 2.2 6.6 | Characteristics Same as Type 6DA7. (10DA7 Designed for Series String Receivers.) | | | | | | | | | |
| 10DE7 | T-6½ | Duotriode | 9HF | 9.7* | 0.600 | Vert. Osc. Vert. Defl. A. | 1.5 7.0 | Characteristics Same as Type 6DE7. (10DE7 Designed for Series String Receivers.) | | | | | | | | | |
| 10DR7 | T-6½ | Duotriode | 9HF | 9.7* | 0.600 | Vert. Amp. Vert. Osc. | 7.0 1.0 | Characteristics Same as Type 6DR7. (10DR7 Designed for Series String Receivers.) | | | | | | | | | |
| 10DX8 | T-6½ | Triode Pent. | 9HX | 10.2* | 0.450 | Sync. Sep. Video Amp. | 1.0 4.0 | Characteristics Same as Type 6DX8. (10DX8 Designed for Series String Receivers.) | | | | | | | | | |
| 10EB8 | T-6½ | Tri. Pentode | 9DX | 10.5* | 0.450 | A-F Amp. Video Amp. | 1.0 5.0 | Characteristics Same as Type 6EB8. (10EB8 Designed for Series String Receivers.) | | | | | | | | | |
| 10EG7 | T-9 | Duotriode | 8BD | 9.7* | 0.600 | Vert. Amp. Vert. Defl. A. Vert. Osc. | 10 1.5 | Max. Peak Positive Pulse Plate Voltage = 1500 Volts. Max. D.C. Cathode Current = 50 Ma. 150 17.5 45 800 7500 6 250 11.0 5.5 8750 2000 17.5 | | | | | | | | | |
| 10EM7 | T-6½ | Duotriode | 8BD | 9.7* | 0.600 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6EM7. (10EM7 Designed for Series String Receivers.) | | | | | | | | | |
| 10EW7 | 9-T9 | Duotriode | 9HF | 9.7* | 0.600 | Vert. Defl. Osc./Amp. | 1.5 10 | Characteristics Same as Type 6EW7. (10EW7 Designed for Series String Receivers.) | | | | | | | | | |
| 10FD7 | 9-T9 | Duotriode | 9HF | 9.7* | 0.600 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6FD7. (10FD7 Designed for Series String Receivers.) | | | | | | | | | |
| 10FR7 | 9-T9 | Duotriode | 9HF | 9.7* | 0.600 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6FR7. (10FR7 Designed for Series String Receivers.) | | | | | | | | | |
| 10GF7 | Novar T-9 | Double Tri. | 9QD | 9.7* | 0.600 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.5 11.0 | Characteristics Same as Type 6GF7. (10GF7 Designed for Series String Receivers.) | | | | | | | | | |
| 10HF8 | T-6½ | Tri. Pentode | 9DX | 10.5* | 0.450 | Gen. Purpose Video Amp. | 1.0 5.0 | Characteristics Same as Type 6HF8. | | | | | | | | | |
| 10JA8 | T-6½ | Tri. Tetrode | 9QF | 10.5* | 0.450 | Sync. Sep. Video Amp. | 1.0 5.0 | Characteristics Same as Type 6JA8. (10JA8 Designed for Series String Receivers.) | | | | | | | | | |
| 10JT8 | T-9 | Tri. Pentode | 9DX | 10.2* | 0.450 | Voltage Amp. Video Amp. | 1.0 4.0 | Characteristics Same as Type 6JT8. (10JT8 Designed for Series String Receivers.) | | | | | | | | | |
| 10JY8 | T-6½ | Tri. Pentode | 9DX | 10.5* | 0.450 | Sync. Sep. Video Amp. | 2.0 5.0 | 125 200 | 68 [■] 100 [■] | 150 | 15 24 | 4.8 | 4400 55000 | 10400 11000 | 46 ..... | ..... ..... | ..... ..... |
| 10KU8 | T-9 | Double Diode Pentode | 9LT | 10.2* | 0.450 | Phase Det. Video Amp. | 4.0 | Characteristics Same as Type 6KU8. (10KU8 Designed for Series String Receivers.) | | | | | | | | | |
| 10LB8 | T-9 | Tri. Pentode | 9DX | 10.2* | 0.450 | Voltage Amp. Video Amp. | 2.0 4.0 | Characteristics Same as Type 6LB8. (10LB8 Designed for Series String Receivers.) | | | | | | | | | |
| 11AR11 | Comp. T-9 | Duo. Pent. | 12DM | 11.2* | 0.450 | T.V. I-F Amp. | 3.1 | Characteristics Same as Type 6AR11. (11AR11 Designed for Series String Receivers.) | | | | | | | | | |
| 11C5 | T-5½ | Beam Pent. | 7CV | 11.6* | 0.450 | Power Amp. | 4.9 | Characteristics Same as Type 35C5. (11C5 Designed for Series String Receivers.) | | | | | | | | | |
| 11CY7 | T-6½ | Duotriode | 9LG | 11* | 0.450 | Vert. Osc. Vert. Defl. A. | 1.0 5.5 | Characteristics Same as Type 6CY7. (11CY7 Designed for Series String Receivers.) | | | | | | | | | |
| 11JE8 | T-6½ | Tri. Pentode | 9DX | 10.9* | 0.450 | Gen. Purpose Video Amp. | 1.0 4.0 | Characteristics Same as Type 6JE8. (11JE8 Designed for Series String Receivers.) | | | | | | | | | |
| 11KV8 | T-6½ | Triode Pent. | 9DX | 10.9* | 0.450 | Video Amp. Voltage Amp. | 5.0 1.0 | Characteristics Same as Type 6KV8. (11KV8 Designed for Series String Receivers.) | | | | | | | | | |
| 12A6 | Metal | Beam Pent. | 7S | 12.6 | 0.150 | Power Amp. | 8.25 | 250 | 12.5 | 250 | 30 | 3.5 | 70000 | 3000 | ..... | 7500 | 3400 |
| 12A8GT | T-9 | Heptode | 8A | 12.6 | 0.150 | Converter | 1.1 | Characteristics Same as Type 6A8G. | | | | | | | | | |
| 12AB5 | T-6½ | Beam Pent. | 9EU | 12.6 | 0.200 | S.T.A1 Amp. P.P.A1 Amp. | 13.2 | 250 250 | 12.5 15 | 250 250 | 45 70 | 4.5 5 | 50000 | 4100 ..... | ..... ..... | 5000 10000 | 4500 10000 |
| 12AC6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R.F. Amp. | ..... | 12.6 | 0 | 12.6 | 550μa | 200μa | 0.5 Meg. | 730 | ..... | ..... | ..... |
| 12AD5 | T-6½ | Pentode | 9AZ | 12.6 | 0.100 | R-F Amp. | 2.2 | 100 | 2.5 | 100 | 6.0 | 1.75 | 600000 | 2200 | ..... | ..... | ..... |
| 12AD6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Hep. Mixer | ..... | 12.6 | 2.2 Meg ⁴ | 12.6 | 350 μa. | 1.5 | ..... | 320 [▲] | | | |

(1) See Frontal Section. (2) Design Maximum Values. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 † Maximum Signal. ‡ Filamentary Type. ▲ Conversion Transconductance. ¶ Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

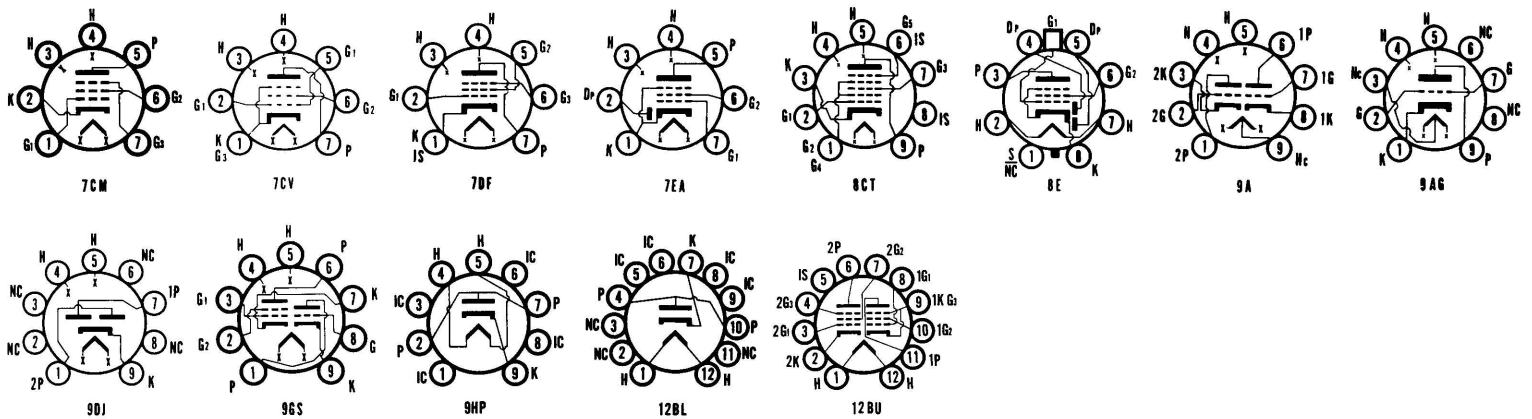
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------------|---------------------------------|---------------|--------------|-----------|-------------|---|--------------------------------|--|-----------------------------|--------------|-------------------|--------------------|-------------------|---------------------------|---------------------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12AD7 | T-6½ | Duotriode | 9A | 12.6/6.3 | 0.225/0.450 | A-F Amp. | 1.1 | 250 | 2 | .... | 1.25 | ... | 62500 | 1600 | 100 | .... | .... |
| 12AE6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 0 | .... | 0.75 | ... | 15000 | 1000 | 15 | .... | .... |
| 12AE6A | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 10 Meg ⁴ | .... | 0.32 | ... | 20000 | 715 | 14.3 | .... | .... |
| 12AE7 | T-6½ | Duotriode | 9A | 12.6 | 0.450 | Dis. Triodes Voltage Amp. Pwr. Amp. Dr. | 1.0 | 12.6 | 1.5 Meg ⁴ | .... | 1.9 | ... | 3150 | 4000 | 13 | .... | .... |
| | | | | | | | 1.0 | 12.6 | 1.0 Meg ⁴ | .... | 7.5 | ... | 985 | 6500 | 6.4 | .... | .... |
| 12AF3 | T-6½ | Diode | 9CB | 12.6* | 0.600 | T.V. Damper | 6.0 | Characteristics Same as Type 6AF3. (12AF3 Designed for Series String Receivers.) | | | | | | | | | |
| 12AF6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | .... | 12.6 | 0 | 12.6 | 1.1 | 0.45 | 0.35 Meg. | 1500 | .... | .... | .... |
| 12AG6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Converter | .... | 12.6 | 0.85 | 12.6 | 0.55 | 1.4 | .... | 300 ⁴ | G1 = 20000 Ohms; G1 = 0.050 Ma. |  | .... |
| 12AJ6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 0 | .... | 0.75 | ... | 45000 | 1200 | 55 | .... | .... |
| 12AL5 | T-5½ | Duodiode | 6BT | 12.6 | 0.150 | Detector | .... | Characteristics Same as Type 6AL5. | | | | | | | | | |
| 12AL8 | T-6½ | Tri. Tetrode | 9GS | 12.6 | 0.550 | Tri. Amp. Tet. Amp. | .... | 12.6 | 0.9 ⁴ | .... | 0.5 | ... | 13000 | 1000 | 13 | .... | .... |
|  |  |  |  |  |  |  | .... | 12.6 | G2=0.5 ⁴ G1=12.6 | 40 | 75 | .... | 480 | 15000 | .... | .... | .... |
| | | | | | | | | Designed for Space-Charge Grid Operation. | | | | | | | | | |
| 12AL11 | Comp. T-9 | Duo. Pent. | 12BU | 12.6* | 0.450 | FM Det. S.T. A1 Amp. | 1.7 | Characteristics Same as Type 6AL11. (12AL11 Designed for Series String Receivers.) | | | | | | | | | |
| 12AO5 | T-5½ | Beam Pent. | 7BZ | 12.6 | 0.225 | Power Amp. | 13.2 | Characteristics Same as Type 6AO5. | | | | | | | | | |
| 12AS5 | T-5½ | Beam Pent. | 7CV | 12.6 | 0.400 | S.T. A1 Amp. | 6.0 | Characteristics Same as Type 6AS5. | | | | | | | | | |
| 12AT6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | 0.55 | Characteristics Same as Type 6AT6. | | | | | | | | | |
| 12AT7 | T-6½ | Duotriode | 9A | 6.3 | 0.300 | VHF Amp. | 2.75 | 100 | 270 ⁴ | .... | 3.7 | ... | .... | 4000 | 60 | .... | .... |
| | | | | 12.6 | 0.150 | | | 250 | 200 ⁴ | .... | 10.0 | ... | .... | 5500 | 60 | .... | .... |
| 12AT7WA (3) | | | | | | | | | | | | | | | | | |
| 12AU6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6AU6. | | | | | | | | | |
| 12AU7 | T-6½ | Duotriode | 9A | 12.6 | 0.150 | Amplifier | 3.0 | 250 | 8.5 | .... | 10.5 | ... | 7700 | 2200 | 17 | .... | .... |
| 12AU7A | | | | 6.3 | 0.300 | | | 100 | 0 | .... | 11.8 | ... | 6500 | 3100 | 20 | .... | .... |
| 12AV5GA | T-11 or T-12 | Beam Pent. | 6CK | 12.6* | 0.600 | Horizontal Defl. Amp. | 12.1 | Characteristics Same as Type 6AV5GA. (12AV5GA Designed for Series String Receivers.) | | | | | | | | | |
| 12AV6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | 0.55 | Characteristics Same as Type 6AV6. | | | | | | | | | |
| 12AV7 | T-6½ | Duotriode | 9A | 12.6 | 0.225 | A-F Amp. | 2.97 | 100 | 120 ⁴ | .... | 9.0 | ... | 6100 | 6100 | 37 | .... | .... |
| | | | | 6.3 | 0.450 | | | 150 | 56 ⁴ | .... | 18 | ... | 4800 | 8500 | 41 | .... | .... |
| 12AW6 | T-5½ | Pentode | 7CM | 12.6 | 0.150 | R-F Amp. | 2.2 | 250 | 200 ⁴ | 150 | 7.0 | 2.0 | 0.8 Meg. | 5000 | .... | .... | .... |
| | | | | | | | | 125 | 100 ⁴ | 125 | 7.2 | 2.1 | 0.5 Meg. | 5100 | .... | .... | .... |
| | | | | | | | | 100 | 100 ⁴ | 100 | 5.5 | 1.6 | 0.3 Meg. | 4750 | .... | .... | .... |
| 12AX3 | Comp. T-9 | Diode | 12BL | 12.6* | 0.600 | T.V. Damper | 5.3 | Characteristics Same as Type 6AX3. (12AX3 Designed for Series String Receivers.) | | | | | | | | | |
| 12AX4GT | T-9 | Diode | 4CG | 12.6 | 0.600 | T.V. Damper | 5.28 | P.I.V. = 4400 Volts Max., D.C. Plate Current = 125 Ma. Max. (12AX4GTA Designed for Series String Receivers.) | | | | | | | | | |
| 12AX4GTA | | | | 12.6* | 0.600 | | | | | | | | | | | | |
| 12AX4GTB | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 5.28 | P.I.V. = 5000 Volts Max., D.C. Plate Current = 125 Ma. Max. | | | | | | | | | |
| 12AX7 | T-6½ | Duotriode | 9A | 12.6 | 0.150 | Amplifier | 1.1 | 100 | 1 | .... | 0.5 | ... | 80000 | 1250 | 100 | .... | .... |
| | | | | 6.3 | 0.300 | | | 250 | 2 | .... | 1.2 | ... | 62500 | 1600 | 100 | .... | .... |
| 12AX7A | T-6½ | Duotriode | 9A | 12.6 | 0.150 | Audio Amp. | 1.1 | Low Noise and Low Microphoism Version of Identical Type 12AX7. | | | | | | | | | |
| 12AY3 | Novar T-9 | Diode | 9HP | 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics and Ratings Same as Type 6AY3. (12AY3 Designed for Series String Receivers.) | | | | | | | | | |
| 12AY7 | T-6½ | Duotriode | 9A | 12.6 | 0.150 | Audio Amp. | 1.65 | 250 | 4.0 | .... | 3.0 | ... | .... | 1750 | 40 | .... | .... |
| 12AZ7 | T-6½ | Duotriode | 9A | 6.3* | 0.450 | VHF Amp. | 2.75 | 100 | 270 ⁴ | .... | 3.7 | ... | 15000 | 4000 | 60 | .... | .... |
| | | | | 12.6 | 0.225 | | | 250 | 200 ⁴ | .... | 10.0 | ... | 10900 | 5500 | 60 | .... | .... |
| 12AZ7A | T-6½ | Duotriode | 9A | 12.6/6.3* | 0.225/0.450 | VHF Osc./ Amp. | 2.5 | Characteristics Same as Type 12AZ7. | | | | | | | | | |
| 12B3 | T-6½ | Diode | 9BD | 12.6* | 0.600 | T.V. Damper | .... | Characteristics Same as Type 6B3. (12B3 Designed for Series String Receivers.) | | | | | | | | | |
| 12B4A | T-6½ | Triode | 9AG | 6.3*/12.6 | 0.600/0.300 | Vert. Defl. Amplifier | 6.0 | Max. Peak Pos. Pulse Plate Voltage = 1000 Volts Max. D.C. Cathode Current = 30 Ma. (12B4A Designed for Series String Receivers.) | | | | | | | | | |
| | | | | | | | | 150 | 17.5 | .... | 35 | .... | .... | 6500 | 6.5 | .... | .... |



AVERAGE CHARACTERISTICS

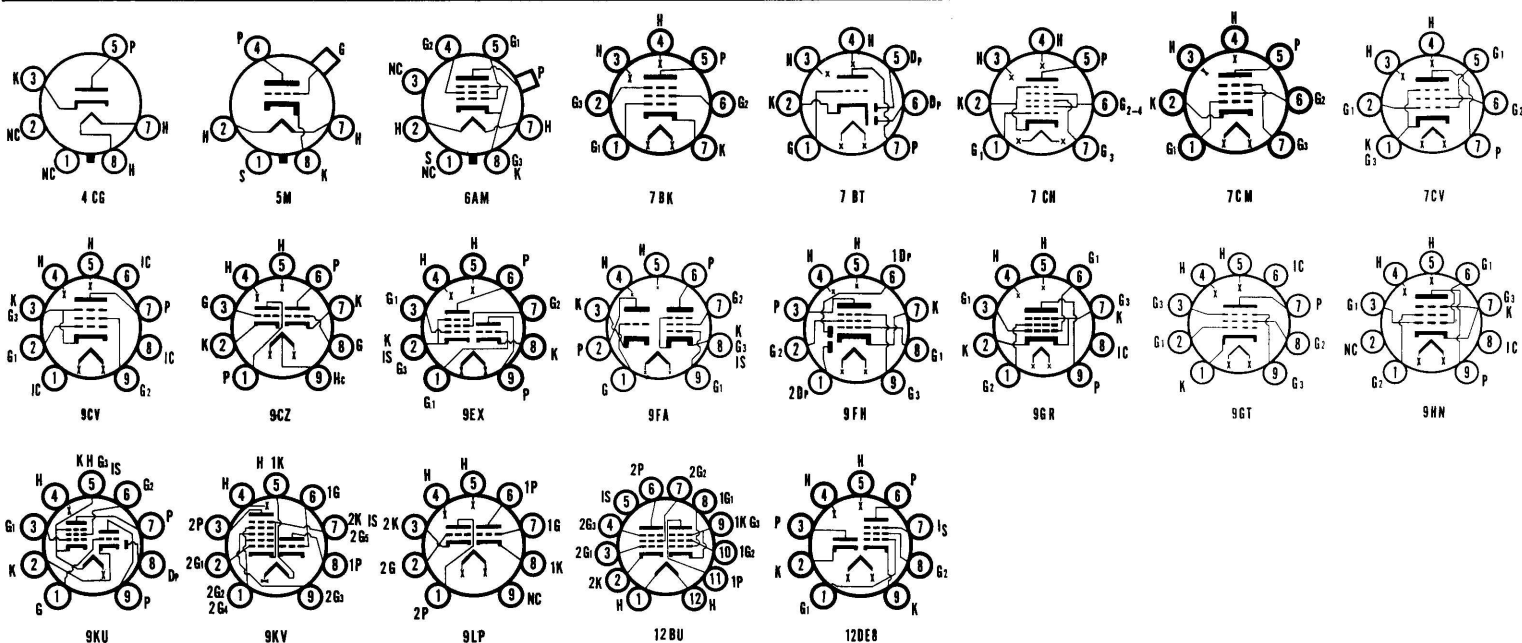
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-----------------|---------------------------------|----------------------|--------------|---------------|-----------------|-------------------------|--------------------------------|---|----------------------------|--------------|-------------------|--------------------|-------------------------------|---------------------------|--|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12BA6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6BA6. | | | | | | | | | |
| 12BA7 | T-6½ | Heptode | 8CT | 12.6 | 0.150 | Converter | 2.2 | Characteristics Same as Type 6BA7. | | | | | | | | | |
| 12BD6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6BD6. | | | | | | | | | |
| 12BE3 | Comp. T-9 | Diode | 12BL | 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics Same as Type 6BE3. (12BE3 Designed for Series String Receivers.) | | | | | | | | | |
| 12BE6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Converter | 1.1 | Characteristics Same as Type 6BE6. | | | | | | | | | |
| 12BF6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | 2.75 | 250 | 9.0 | 9.5 | 8500 | 1900 | 16 | 10000 | 300 | | |
| 12BH7 12BH7A | T-6½ | Duotriode | 9A | 6.3*/ 12.6 | 0.600/ 0.300 | Vert. Defl. Amplifier | 3.85 | Max. Peak Pos. Pulse Plate Voltage = 1500 Volts Max. D.C. Cathode Current = 20 Ma. (12BH7A Designed for Series String Receivers.) | | | | | | | | | |
| 12BJ3 | Comp. T-9 | Diode | 12BL | 12.6* | 0.450 | T.V. Damper | 5.3 | Max. Peak Inverse Plate Voltage = 3300 Volts. Max. Cathode Current = 165 Ma. | | | | | | | | | |
| 12BK5 | T-6½ | Beam Amp. | 9BQ | 12.6* | 0.600 | Power Amp. | 9.9 | Characteristics Same as Type 6BK5. (12BK5 Designed for Series String Receivers.) | | | | | | | | | |
| 12BL6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | .... | 12.6 | 0.65* | 12.6 | 1.35 | 0.5 | 500000 | 1350 | .... | .... |  |
| 12BN6 | T-5½ | Gated Beam | 7DF | 12.6 | 0.150 | Quad. F.M. Detector | .... | Characteristics Same as Type 6BN6. | | | | | | | | | |
| 12BQ6GTA | T-11 T-9 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6BQ6GTA. (12BQ6GTA Designed for Series String Receivers.) | | | | | | | | | |
| 12BQ6GTB | T-9 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Amp. | 12.1 | Characteristics Same as Type 6BQ6GTB. (12BQ6GTB Designed for Series String Receivers.) | | | | | | | | | |
| 12BR3 | T-6½ | Diode | 9CB | 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics Same as Type 6BR3. (12BR3 Designed for Series String Receivers.) | | | | | | | | | |
| 12BR7 | T-6½ | Duodiode Tri. | 9CF | 12.6/ 6.3 | 0.225/ 0.450 | Det. Amp. | 2.75 | 100 250 | 270 200 | .... | 3.7 10.0 | 15000 10900 | 4000 5500 | 60 60 | .... | .... |  |
| 12BS3 | Novar T-9 | Diode | 9HP | 12.6* | 0.600 | T.V. Damper | 6.0 | Characteristics Same as Type 6BS3. (12BS3 Designed for Series String Receivers.) | | | | | | | | | |
| 12BV7 | T-6½ | Pentode | 9BF | 12.6/ 6.3 | 0.300/ 0.600 | Video Amp. | 6.87 | 250 | 68 | 150 | 27 | 6.0 | 85000 | 13000 | 1000 | .... | .... |
| 12BW4 | T-6½ | Duodiode | 9DJ | 12.6 | 0.450 | F-W Rect. | .... | Characteristics Same as Type 6BW4 | | | | | | | | | |
| 12BX6 | T-6½ | Pentode | 9AQ | 12.6 | 0.150 | VHF Amp. | 2.5 | Characteristics Same as Type 6BX6. (12BX6 Designed for Series String Receivers.) | | | | | | | | | |
| 12BY7 | T-6½ | Pentode | 9BF | 6.3 12.6 | 0.600 0.300 | Video Amp. | 7.1 | 250 | 100 | 180 | 26 | 5.75 | 93000 | 11000 | 1035 | .... | .... |
| 12BZ6 | T-5½ | Pentode | 7CM | 12.6 | 0.150 | R-F Amp. | 2.3 | Characteristics Same as Type 6BZ6. | | | | | | | | | |
| 12BZ7 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.600/ 0.300 | Sync. Sep. or Amplifier | 1.65 | 250 | 2 | .... | 2.5 | .... | 31800 | 3200 | 100 | Cout Sec. 1 = 0.7 | |
| 12C5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.600 | Power Amp. | 6.6 | 120 | 8 | 110 | 49 | 4.0 | 10000 | 7500 | .... | 2500 | 2300 |
| 12C8 | Metal | Duodi. Pent. | 8E | 12.6 | 0.150 | Det. Amp. | 2.47 | Characteristics Same as Type 6B8. | | | | | | | | | |
| 12CA5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.600 | Power Amp. | 5.5 | Characteristics Same as Type 6CA5. (12CA5 Designed for Series String Receivers.) | | | | | | | | | |
| 12CM6 | T-6½ | Beam Pent. | 9CK | 12.6 | 0.225 | Power Amp. | 13.2 | Characteristics Same as Type 6CM6. | | | | | | | | | |
| 12CN5 | T-5½ | Pentode | 7CV | 12.6 | 0.450 | I-F Amp. | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 4.5 | 0.35 | 40000 | 3800 | .... | .... | .... |
| 12CR6 | T-5½ | Diode Pent. | 7EA | 12.6 | 0.150 | Audio Amp. | 2.75 | 250 | 2 | 100 | 9.6 | 2.6 | 800000 | 2200 | .... | .... | .... |
| 12CS6 | T-5½ | Dual Control Heptode | 7CH | 12.6 | 0.150 | Sync. Sep. | 11 | 100 | 0.0 Gr. 1 100 1.0 Gr. 1 | 30 30 | 0.8 0.75 | 4.0 1.1 | 700000 1.0 Meg. 1250 Gr. 3 | 950 Gr. 1 | Grid 3 Volts = 0 Grid 3 Volts = 1.0 | .... | .... |
| 12CT8 | T-6½ | Tri. Pentode | 9DA | 12.6* | 0.300 | Sync. Amp. Video Amp. | 2.5 2.75 | 150 200 | 150 82 | 125 | 9.0 15.0 | 3.4 | 8200 150000 | 4900 7000 | 40 .... | .... | .... |
| 12CU5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.600 | Power Amp. | 6.6 | Characteristics Same as Type 6CU5. (12CU5 Designed for Series String Receivers.) | | | | | | | | | |
| 12CU6 | T-12 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6BQ6G, except Max. D.C. Plate Supply = 550 Volts. (12CU6 Designed for Series String Receivers.) | | | | | | | | | |
| 12CX6 | T-5½ | Pentode | 7BK | 12.6 | 0.150 | R-F Amp. | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 3.0 | 1.4 | 40000 | 3100 | .... | .... | .... |
| 12CY6 | T-5½ | Pentode | 7BK | 12.6 | 0.200 | R-F Amp. | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 1.6 | 0.4 | 140000 | 3250 | .... | .... | .... |
| 12D4 | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 5.5 | Max. Inverse Peak Plate Voltage = 4400 Volts. Max. D.C. Plate Current = 155 Ma. | | | | | | | | | |
| 12D4A | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 8.0 | Max. Peak Inverse Plate Voltage = 5000 Volts. Max. D.C. Plate Current = 185 Ma. Characteristics Same as Type 6DA4A. | | | | | | | | | |

(1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. ♦ Filamentary Type. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) † Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

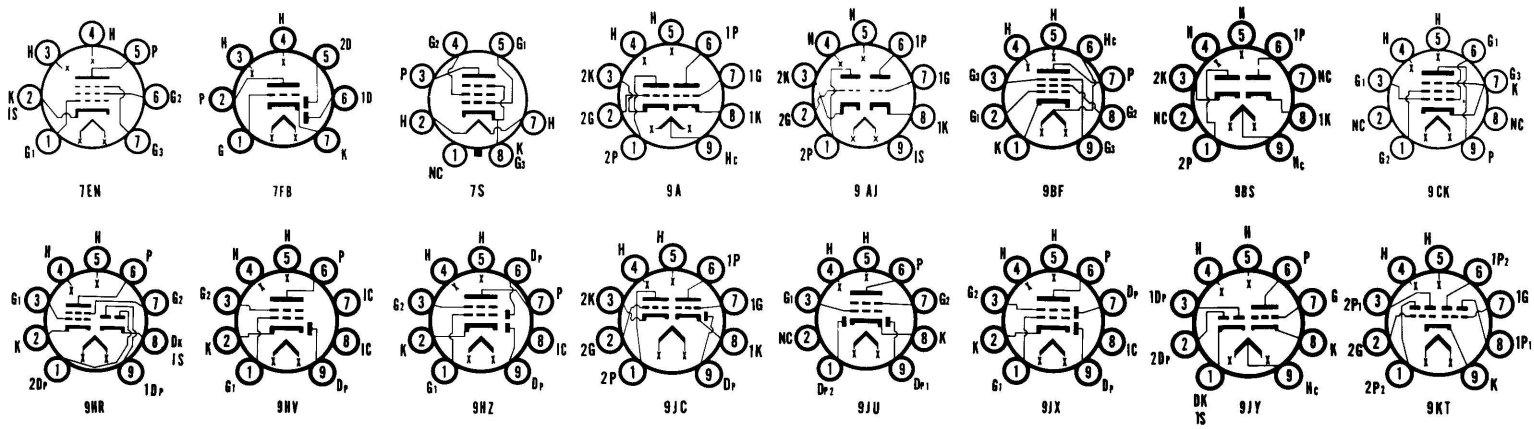
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-----------------|---------------------------------|------------------|--------------|---------------|----------------|--|--------------------------------|--|--|------------------------------|----------------------------|------------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------------|------------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12DB5 | T-6½ | Beam Pent. | 9GR | 12.6* | 0.600 | Vert. Defl. Amplifier | 11 | Characteristics Same as Type 6DB5. (12DB5 Designed for Series String Receivers.) | | | | | | | | | |
| 12DE8 | T-6½ | Diode Pent. | 12DE8 | 12.6 | 0.200 | R-F or I-F Amplifier | .... | 12.6 | 0.8 ⁴ | 12.6 | 1.3 | 0.5 | 30000 | 1500 | .... | .... | .... |
| 12DF5 | T-6½ | Duodiode | 9BS | 12.6 6.3 | 0.450 0.900 | F-W Rect. | .... | 325 A.V. Volts Per Plate, RMS, 100 Ma. Output Current. Condenser Input. 450 A.C. Volts Per Plate, RMS, 100 Ma. Output Current. Choke Input. | | | | | | | | | |
| 12DF7 | T-6½ | Duotriode | 9A | 12.6 6.3 | 0.150 0.300 | Audio Amp. | 1.1 | Characteristics Same as Type 12AX7. (Special Low Noise.) | | | | | | | | | |
| 12DJ8 | T-6½ | Duotriode | 9AJ | 12.6 | 0.180 | VHF Amp. | 2.0 | Characteristics Same as Type 6DJ8. | | | | | | | | | |
| 12DK5 | T-6½ | Pentode | 9GT | 12.6 | 0.300 | R-F Amp. | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 2.0 | 0.65 | 100000 | 3300 | .... | .... | .... |
| 12DK6 | T-5½ | Pentode | 7CM | 12.6* | 0.150 | VHF Amp. | 2.2 | Characteristics Same as Type 6DK6. (12DK6 Designed for Series String Receivers.) | | | | | | | | | |
| 12DK7 | T-6½ | Duodiode Tetrode | 9HZ | 12.6 | 0.500 | Det. Power Amp. Driver | 0.55 | 12.6 | 2.2 Meg ⁴ | 12.6 | 6.0 | 1.0 | 4000 | 5000 | .... | 3500 | 10 |
| 12DL8 | T-6½ | Duodiode Tetrode | 9HR | 12.6 | 0.550 | Det. Power Amp. Driver | .... | 12.6 G ₂ = 2 G ₁ = 12.6 (Space-Charge Grid Operation.) | | | | | | | | | |
| 12DM4 | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics Same as Type 6DM4. (12DM4 Designed for Series String Receivers.) | | | | | | | | | |
| 12DM4A | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 6.5 | Characteristics Same as Type 6DM4A. (12DM4A Designed for Series String Receivers.) | | | | | | | | | |
| 12DM5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.450 | Power Amp. | 6.0 | 110 | 7.5 | 110 | 49.0 | 4.0 | 14000 | 7500 | .... | 2500 | 1900 |
| 12DM7 | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.260 0.130 | A-F Amp. | 1.1 | Low Noise and Low Microphonism Version of Type 12AX7. | | | | | | | | | |
| 12DQ4 | T-9 | Diode | 4CG | 12.6* | 0.600 | T.V. Damper | 6.0 | Characteristics Same as Type 6DQ4. (12DQ4 Designed for Series String Receivers.) | | | | | | | | | |
| 12DQ6A | T-12 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Defl. Amplifier | 16.5 | Characteristics Same as Type 6DQ6A. (12DQ6A Designed for Series String Receivers.) | | | | | | | | | |
| 12DQ6B | T-12 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Defl. Amplifier | 18 | Characteristics Same as Type 6DQ6B. (12DQ6B Designed for Series String Receivers.) | | | | | | | | | |
| 12DQ7 | T-6½ | Pentode | 9BF | 12.6/ 6.3* | 0.300 0.600 | Video Amp. | 6.5 | 200 | 68 [■] | 125 | 26 | 5.6 | 53000 | 10500 | .... | .... | .... |
| 12DS7 12DS7A | T-6½ | Duodiode Tetrode | 9JU | 12.6 | 0.400 | Det. Power Driver | .... | 12.6 | 2.2 Meg ⁴ | G ₁ = 12.6 | 35-15† | 80 | .... | .... | .... | 700 | 35 |
| 12DT5 | T-6½ | Beam Pent. | 9HN | 12.6* | 0.600 | Vert. Defl. Amplifier | 9.0 | Characteristics and Ratings Same as Type 6DT5. (12DT5 Designed for Series String Receivers.) | | | | | | | | | |
| 12DT6 | T-5½ | Gated Beam | 7EN | 12.6 | 0.150 | Quad FM Det. | 1.7 | Characteristics Same as Type 6DT6. | | | | | | | | | |
| 12DT7 | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.300 0.150 | A-F Amp. | 1.1 | Characteristics Same as Type 12AX7. Controlled for Hum and Noise. | | | | | | | | | |
| 12DT8 | T-6½ | Duotriode | 9AJ | 12.6 | 0.150 | A-F Amp. | 2.75 | 100 250 | 270 [■] 200 [■] | | 3.7 10 | .... | 15000 10900 | 4000 5500 | 60 60 | .... | .... |
| 12DU7 | T-6½ | Duodiode Tetrode | 9JX | 12.6 | 0.250 | Det. Power Amp. Driver | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 12 | 1.5 | 6000 | 6200 | .... | 2700 | 25 |
| 12DV7 | T-6½ | Duodiode Tri. | 9JY | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 2.2 Meg ⁴ | .... | 0.4 | .... | 19000 | 750 | 14 | .... | .... |
| 12DV8 | T-6½ | Duodiode Tetrode | 9HR | 12.6 | 0.375 | Detector, Pwr. Amp. Dr. | .... | 12.6 | 18 Ohm [■] | G ₁ = 12.6 | 6.8 | 54 | 900 | 8500 | 7.6 | 1250 | 5 |
| 12DW5 | T-6½ | Beam Pent. | 9CK | 12.6* | 0.600 | Vert. Defl. Amplifier | 11 | Max. Peak Positive Plate Voltage = 2200 Volts. Max. D.C. Cathode Current = 65 Ma. 200 22.5 150 55 2.0 15000 5500 | | | | | | | | | |
| 12DW7 | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.300 0.150 | Sect. 1 A-F Voltage Amp. Sect. 2 A-F Phase Inverter | 1.2 3.3 | 100 250 100 250 | 1.0 2.0 0 8.5 | .... .... .... .... | 0.5 1.2 11.8 10.5 | .... .... .... .... | 80000 62500 6500 7700 | 1250 1600 3100 2200 | 100 100 20 .... | .... .... .... .... | .... .... .... .... |
| 12DW8 | T-6½ | Diode-Duo-Triode | 9JC | 12.6 | 0.450 | Dissimilar Tri's Voltage Amp. Pwr. Amp. Dr. | 0.5 0.5 | 12.6 12.6 | 1.5 Meg ⁴ 1.0 Meg ⁴ | .... .... | 1.9 7.5 | .... .... | 3520 970 | 2700 6500 | 9.5 6.4 | .... .... | .... .... |
| 12DZ6 | T-5½ | Pentode | 7BK | 12.6 | 0.190 | R-F Amp. | .... | 12.6 | G ₁ = 10 Meg ⁴ | 12.6 | 4.5 | 2.2 | 25000 | 3800 | .... | .... | .... |



AVERAGE CHARACTERISTICS

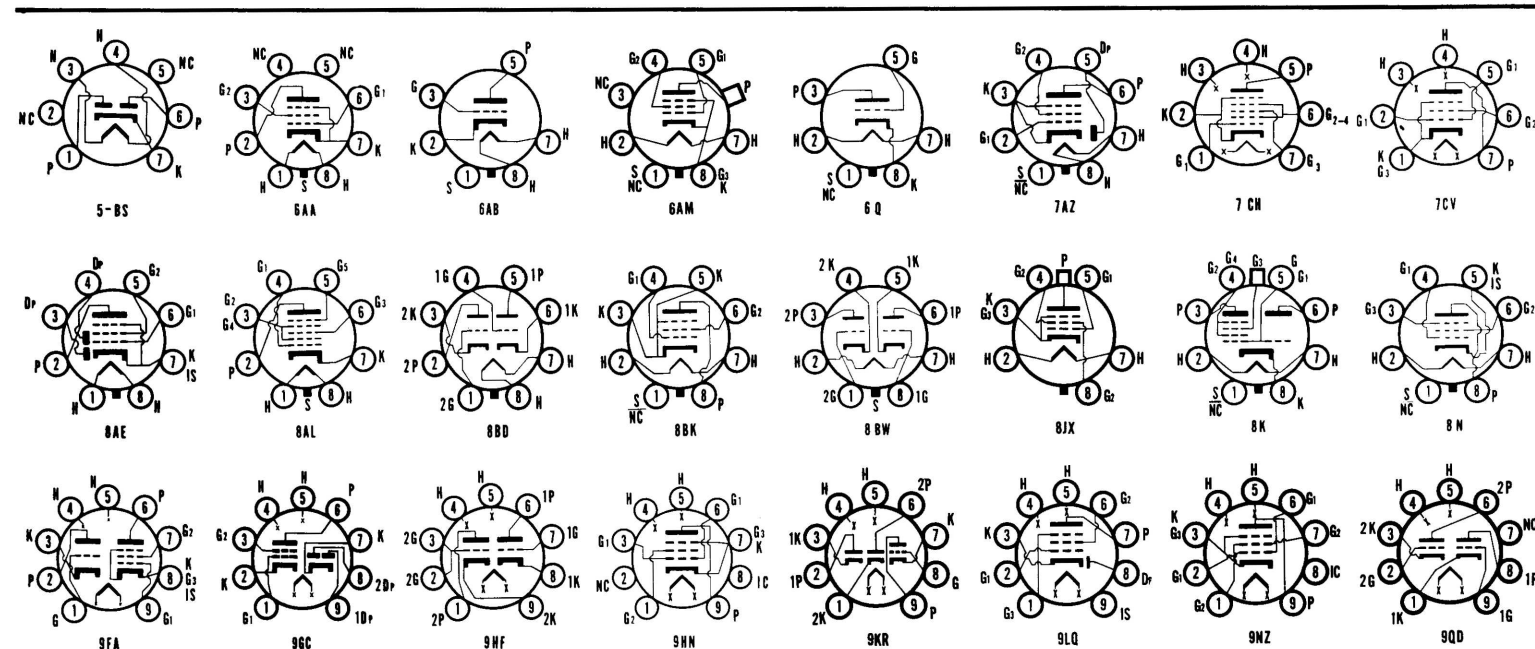
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--------|---------------------------------|---------------------------|--------------|--------------|-----------------|--|--------------------------------|--|-----------------------|------------------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12DZ8 | T-6½ | Tri. Beam Pentode | 9EX | 12 | 0.450 | A-F Voltage Amp. and Power Amp. | .825 | Characteristics Same as Type 6DZ8. (12DZ8 Designed for Series String Receivers.) | | | | | | | | | |
| 12EA6 | T-5½ | Pentode | 7BK | 12.6 | 0.190 | I-F Amp. | 7.15 | 12.6 | G1 = 10 Meg G3 = 0 | 12.6 | 3.2 | 1.4 | 32000 | 3800 | .... | .... | .... |
| 12EC8 | T-6½ | Tri. Pentode | 9FA | 12.6 | 0.225 | FM Osc. FM Amp. | .... | 12.6 | 0 | 12.6 | 0.66 | 0.28 | 6000 | 4700 | 25 | .... | .... |
| 12ED5 | T-5½ | Pentode | 7CV | 12.6 | 0.450 | S.T. A1 Amp. | 6.25 | 110 | 4.0 | 110 | 32 | 4 | 14000 | 8100 | .... | 4500 | 1100 |
| 12EF6 | T-9 | Beam Pent. | 7S | 12.6* | 0.450 | Vert. Defl. Amplifier | 11 | Characteristics Same as Type 6EF6. (12EF6 Designed for Series String Receivers.) | | | | | | | | | |
| 12EG6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Mixer Oscillator | .... | 12.6 | 0.8 ⁴ | 12.6 | .04 | 2.47 | 150000 | 800 | .... | .... | .... |
| 12EH5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.600 | S.T. A1 Amp. | 5.5 | Characteristics Same as Type 6EH5. (12EH5 Designed for Series String Receivers.) | | | | | | | | | |
| 12EK6 | T-5½ | Pentode | 7BK | 12.6 | 0.190 | FM Amp. | .... | 12.6 | 2.2 ⁴ | 12.6 | 4.0 | 1.7 | 50000 | 4200 | .... | .... | .... |
| 12EL6 | T-5½ | Duodiode Tri. | 7FB | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 1.0 Meg ⁴ | .... | .75 | .... | 45000 | 1200 | 55 | .... | .... |
| 12EM6 | T-6½ | Diode Tetrode | 9HV | 12.6 | 0.500 | Det. Power Amplifier | 0.55 | 12.6 | 15 Meg ⁴ | 12.6 | 6.0 | 1.0 | 4000 | 5000 | .... | 3500 | 10 |
| 12EN6 | T-9 | Beam Pent. | 7S | 12.6* | 0.600 | Vert. Defl. Amplifier | 7.0 | Max. Peak Positive Pulse Plate Voltage = 1200 Volts. Max. D.C. Cathode Currents = 50 Ma. | | | | | | | | | |
| 12EQ7 | T-6½ | Diode Pent. | 9LP | 12.6 | 0.150 | Det. R-F Amp. | 3.0 | Characteristics Same as Type 6EQ7. | | | | | | | | | |
| 12EZ6 | T-5½ | Pentode | 7BK | 12.6 | 0.175 | R-F or I-F Amplifier | .... | 12.6 | 0.7 | 12.6 | 1.9 | 0.7 | 400000 | 2700 | .... | .... | .... |
| 12F5GT | T-9 | Triode | 5M | 12.6 | 0.150 | Amplifier | .... | Characteristics Same as Type 6F5GT. | | | | | | | | | |
| 12F8 | T-6½ | Duodi. Pent. | 9FH | 12.6 | 0.150 | Amplifier | .... | 12.6 | 0 | 12.6 | 1.0 | 0.38 | 0.33 Meg. | 1000 | .... | .... | .... |
| 12FA6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Converter | .... | 12.6 | 0.5 | 12.6 | .45 | 1.0 | 800000 | 320 ⁴ | .... | .... | .... |
| 12FB5 | T-6½ | Beam Pent. | 9CV | 12.6 | 0.300 | S.T. A1 Amp. | 6.6 | 170 | 10.3 | 180 | 31 | 7.3 | .... | .... | .... | 5000 | 2250 |
| 12FK6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 2.2 Meg ⁴ | .... | 1.3 | .... | 6200 | 1200 | 74 | .... | .... |
| 12FM6 | T-5½ | Duodiode Tri. | 7BT | 12.6 | 0.150 | Det. Amp. | .... | 12.6 | 2.2 Meg ⁴ | .... | 1.0 | .... | 7700 | 1300 | 10 | .... | .... |
| 12FQ8 | T-6½ | Twin, Double-Plate Triode | 9KT | 12.6 | 0.150 | Sec. 1 Double Plate Triode Sec. 2 Double Plate Triode | 0.5 | 250 | 1.5 | .... | 1.5 | .... | 76000 | 1250 | 95 | .... | .... |
| 12FR8 | T-6½ | Tri. Pentode Diode | 9KU | 12.6 | 0.320 | Det. Amp. R-F Amp. | .... | 12.6 | 2.2 Meg ⁴ | .... | 1.0 | .... | 1200 | 10 | .... | .... | .... |
| 12FT6 | T-5½ | Duodiode Triode | 7BT | 12.6 | 0.150 | Det. Power Amp. Driver | .... | 12.6 | 2.2 Meg ⁴ | .... | 0.6 | .... | 13000 | 1000 | 14 | .... | .... |
| 12FV7 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.900/ 0.450 | Relay Control Tube | 2.5 | 100 | 2.0 | .... | 16 | .... | 2250 | 9600 | .... | .... | .... |
| 12FX5 | T-5½ | Pentode | 7CV | 12.6* | 0.450 | Power Amp. | 5.5 | 110 | 62 ⁴ | 115 | 35 | 12 | 17500 | 13500 | .... | 3000 | 1300 |
| 12FX8 | T-6½ | Tri. Heptode | 9KV | 12.6 | 0.270 | Tri. R-F Amp. Heptode Conv. | .... | 12.6 | 2.2 Meg ⁴ | .... | 1.3 | .... | 1400 | 10 | .... | .... | .... |
| 12FX8A | T-6½ | Tri. Heptode | 9KV | 12.6 | 0.270 | R-F Amp. Converter | .... | 12.6 | 2.2 Meg ⁴ | .... | 1.3 | .... | 1400 | 10 | .... | .... | .... |
| 12G8 | T-6½ | Duotriode | 9CZ | 12.6 | 0.400 | Amplifier | .... | 12.6 | 0 | Input Tri. Output Tri. | 3.0 | .... | 8500 | 2600 | 22 | 2000 | 25 |
| 12G11 | Comp. T-9 | Double Pent. | 12BU | 12.6* | 0.600 | FM Det. Power Output | 1.7 6.5 | Characteristics Same as Type 6G11. (12G11 Designed for Series String Receivers.) | | | | | | | | | |

(1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. ‡ Filamentary Type. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) † Plate to Plate. ‡ Cathode Resistor (ohms).



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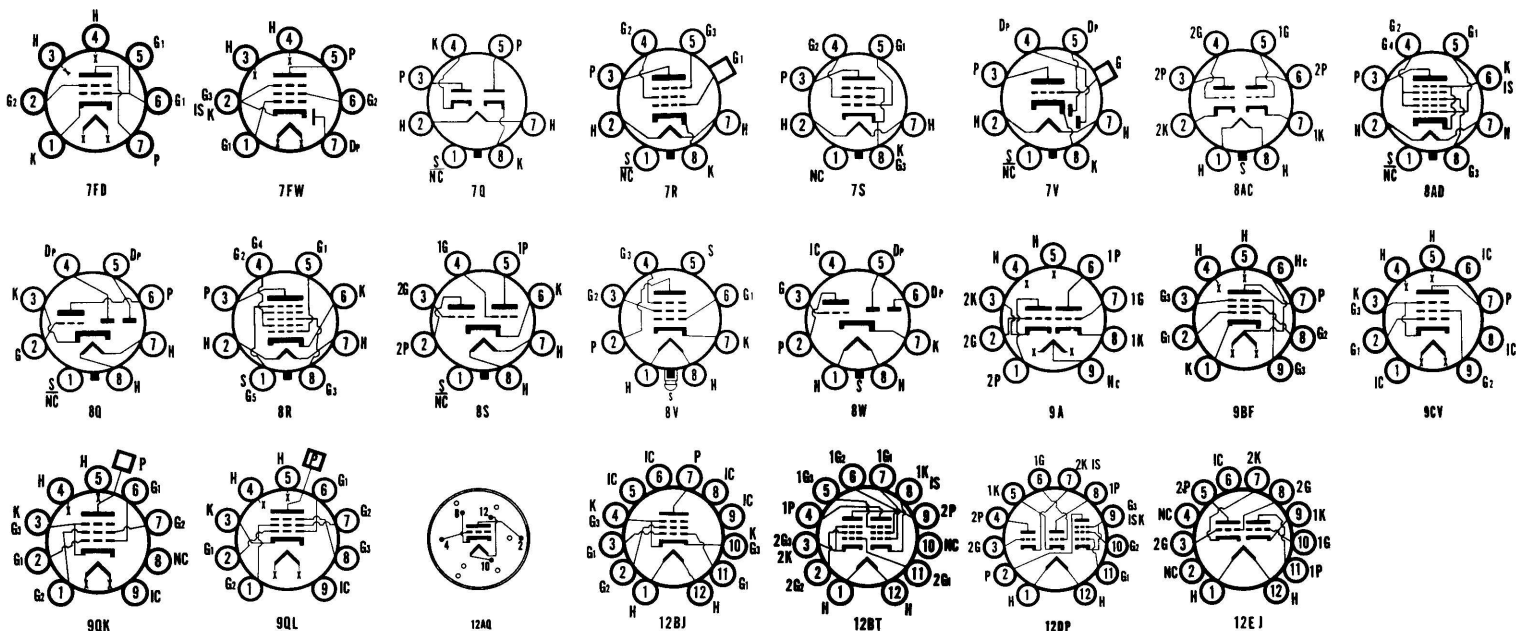
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|------------------|---------------------------------|---------------|--------------|--------------|----------------|-------------------------|--------------------------------|--|------------------------------------|----------------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12GA6 | T-5½ | Heptode | 7CH | 12.6 | 0.150 | Converter | .... | 12.6 | G ² =2.2 M ⁴ | 12.6 | 0.3 | 0.8 | 1.0 Meg. | 140 | .... | .... | .... |
| 12GC6 | T-12 | Beam Pent. | 8JX | 12.6* | 0.600 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GC6. (12GC6 Designed for Series String Receivers.) | | | | | | | | | |
| 12GE5 | Comp. T-12 | Beam Pent. | 12BJ | 12.6* | 0.600 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GE5. (12GE5 Designed for Series String Receivers.) | | | | | | | | | |
| 12GN6 | T-5½ | Pentode | 7FW | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6GN6. | | | | | | | | | |
| 12GN7 | T-6½ | Pentode | 9BF | 6.3 12.6* | 0.600 0.300 | Video Amp. | 7.5 | 250 | 56 [■] | 150 | 28 | 6.5 | 50000 | 36000 | .... | .... | .... |
| 12GJ5 | Novar T-12 | Beam Pent. | 9QK | 12.6* | 0.600 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GJ5. (12GJ5 Designed for Series String Receivers.) | | | | | | | | | |
| 12GT5 | Novar T-12 | Beam Pent. | 9NZ | 12.6* | 0.600 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GT5. (12GT5 Designed for Series String Receivers.) | | | | | | | | | |
| 12GW6 | T-12 | Beam Pent. | 6AM | 12.6* | 0.600 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GW6. (12GW6 Designed for Series String Operation.) | | | | | | | | | |
| 12H6 | Metal | Duodiode | 7Q | 12.6 | 0.150 | Rectifier | .... | Characteristics Same as Type 6H6. | | | | | | | | | |
| 12J5GT | T-9 | Triode | 6Q | 12.6 | 0.150 | Amplifier | 2.75 | Characteristics Same as Type 6J5GT. | | | | | | | | | |
| 12J7GT | T-9 | Pentode | 7R | 12.6 | 0.150 | R-F Amp. | .825 | Characteristics Same as Type 6J7GT. | | | | | | | | | |
| 12J8 | T-6½ | Duo. Tetrode | 9GC | 12.6 | 0.300 | Det. Amp. | .... | 12.6 | 2.2 Meg ⁴ | 12.6 | 12 | 1.5 | 6000 | 5500 | .... | 2700 | 20 |
| 12JB6 | Novar T-12 | Pentode | 9QL | 12.6* | 0.600 | Horiz. Defl. Amp. | 17.5 | Characteristics Same as Type 6JB6. (12JB6 Designed for Series String Receivers.) | | | | | | | | | |
| 12JN8 | T-6½ | Tri. Pentode | 9FA | 12.6 | 0.225 | Oscillator Voltage Amp. | 2.5 2.5 | Characteristics Same as Type 6JN8. | | | | | | | | | |
| 12K5 | T-5½ | Tetrode | 7FD | 12.6 | 0.400 | Power Amp. Driver | .... | 12.6 | G ₂ =2 | G ₁ =12.6 | 8 | 75 | 480 | 15000 | 7.2 | 800 | 40 |
| 12K7GT | T-9 | Pentode | 7R | 12.6 | 0.150 | R-F Amp. | 3.0 | Characteristics Same as Type 6K7GT. | | | | | | | | | |
| 12K8 | Metal | Tri. Hexode | 8K | 12.6 | 0.150 | Mixer Osc. Converter | 3.0 | Characteristics Same as Type 6K8GT. | | | | | | | | | |
| 12KL8 | T-6½ | Diode Pent. | 9LQ | 12.6* | 0.150 | Detector R-F I-F Amp. | 3.0 | Characteristics Same as Type 6KL8. (12KL8 Designed for Series String Receivers.) | | | | | | | | | |
| 12L6GT | T-9 | Beam Pent. | 7S | 12.6* | 0.600 | Power Amp. | 11 | Characteristics Same as Type 25L6GT. (12L6GT Designed for Series String Receivers.) | | | | | | | | | |
| 12Q7GT | T-9 | Duodiode Tri. | 7V | 12.6 | 0.150 | Det. Amp. | 0.55 | Characteristics Same as Type 6Q7GT. | | | | | | | | | |
| 12R5 | T-5½ | Beam Pent. | 7CV | 12.6* | 0.600 | Vert. Defl. Amplifier | 4.95 | Max. Peak Positive Pulse Plate Voltage = 1500 Volts. Max. D.C. Cathode Current = 45 Ma. 110 8.5 110 40.0 3.3 13000 7000 | | | | | | | | | |
| 12SA7 12SA7GT | Metal T-9 | Heptode | 8R 8AD | 12.6 | 0.150 | Converter | 1.1 | Characteristics Same as Type 6SA7. | | | | | | | | | |
| 12SC7 | Metal | Duotriode | 8S | 12.6 | 0.150 | A-F Amp. | 3.85 | Characteristics Same as Type 6SC7. | | | | | | | | | |
| 12SF5 12SF5GT | Metal T-9 | Triode | 6AB | 12.6 | 0.150 | A-F Amp. | .... | Characteristics Same as Type 6SF5. | | | | | | | | | |
| 12SF7 | Metal | Diode Pent. | 7AZ | 12.6 | 0.150 | Det. Amp. | 3.85 | Characteristics Same as Type 6SF7. | | | | | | | | | |
| 12SG7 | Metal | Pentode | 8BK | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6SG7. | | | | | | | | | |
| 12SH7 | Metal | Pentode | 8BK | 12.6 | 0.150 | R-F Amp. | 3.3 | Characteristics Same as Type 6SH7. | | | | | | | | | |
| 12SJ7 12SJ7GT | Metal T-9 | Pentode | 8N 8N | 12.6 | 0.150 | A-F Amp. | 2.75 | Characteristics Same as Type 6SJ7. | | | | | | | | | |
| 12SK7 12SK7GT | Metal T-9 | Pentode | 8N 8N | 12.6 | 0.150 | R-F Amp. | 4.4 | Characteristics Same as Type 6SK7. | | | | | | | | | |
| 12SL7GT | T-9 | Duotriode | 8BD | 12.6 | 0.150 | Amplifier | 1.1 | Characteristics Same as Type 6SL7GT. | | | | | | | | | |
| 12SN7GTA | T-9 | Duotriode | 8BD | 12.6 | 0.300 | Vertical Osc. Amp. | 3.85 | Characteristics Same as Type 6SN7GTA. | | | | | | | | | |
| 12SQ7 12SQ7GT | Metal T-9 | Duodiode Tri. | 8Q | 12.6 | 0.150 | Det. Amp. | 0.55 | Characteristics Same as Type 6SQ7. | | | | | | | | | |
| 12SR7 | Metal | Duodiode Tri. | 8Q | 12.6 | 0.150 | Det. Amp. | 2.75 | Characteristics Same as Type 6SR7. | | | | | | | | | |
| 12U7 | T-6½ | Duotriode | 9A | 12.6 | 0.150 | Class A1 Amp. | .... | 12.6 | 0 | .... | 1.0 | .... | 12500 | 1600 | 20 | .... | .... |



AVERAGE CHARACTERISTICS

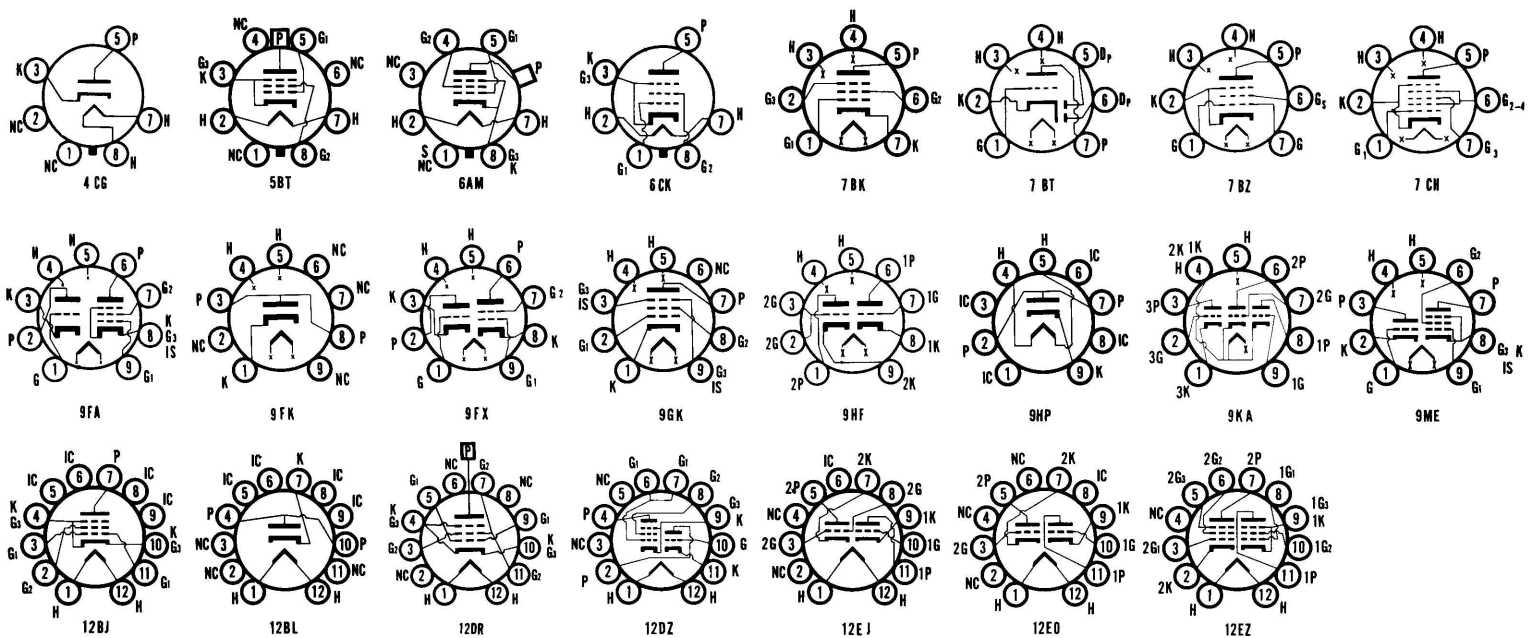
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-----------|---------------------------------|--|--------------|---------|-------|--------------------------------------|--------------------------------|--|---------------------|--------------|-------------------|--------------------|--------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 12V6GT | T-9 | Beam Pent. | 7S | 12.6 | 0.225 | Power Amp. | 13.2 | 180 250 | 8.5 12.5 | 180 250 | 29 45 | 3 4.5 | 50000 50000 | 3700 4100 | ..... ..... | 5500 5000 | 2000 4500 |
| 12W6GT | T-9 | Beam Pent. | 7S | 12.6* | 0.600 | Power Amp. Vert. Defl. Amplifier | 11 | Characteristics Same as Type 6W6GT. (12W6GT Designed for Series String Receivers.) | | | | | | | | | |
| 12X4 | T-5½ | Duodiode | 5BS | 12.6 | 0.300 | F-W Rect. | ..... | Characteristics Same as Type 6X4. | | | | | | | | | |
| 13CW4 | M-N | Triode | 12AQ | 13.5 | 0.060 | VHF Amp. | 1.0 | Characteristics Same as Type 6CW4. | | | | | | | | | |
| 13DE7 | T-6½ | Duotriode | 9HF | 13.0* | 0.450 | Vert. Osc. Vert. Defl. Amplifier | 1.5 7.0 | Characteristics Same as Type 16DE7. (13DE7 Designed for Series String Receivers.) | | | | | | | | | |
| 13DR7 | T-6½ | Duotriode | 9HF | 13* | 0.450 | S. 2 Ver. Amp. S. 1 Ver. Osc. | 1.0 7.0 | Characteristics Same as Type 6DR7. (13DR7 Designed for Series String Receivers.) | | | | | | | | | |
| 13EM7 | T-9 | Duotriode | 8BD | 13* | 0.450 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6EM7. (13EM7 Designed for Series String Receivers.) | | | | | | | | | |
| 13FD7 | 9-T9 | Duotriode | 9HF | 13.0* | 0.450 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6FD7. (13FD7 Designed for Series String Receivers.) | | | | | | | | | |
| 13FM7 | Comp. T-9 | Double Tri. | 12EJ | 13.0* | 0.450 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.0 10.0 | Characteristics Same as Type 6FM7. (13FM7 Designed for Series String Receivers.) | | | | | | | | | |
| 13FR7 | 9-T9 | Duotriode | 9HF | 13.0* | 0.450 | Vert. Defl. Amp./Osc. | 1.5 10 | Characteristics Same as Type 6FR7. (13FR7 Designed for Series String Receivers.) | | | | | | | | | |
| 13GB5 | Magnoval T-9 | Beam Pent. | 9HN | 13.3* | 0.600 | Horiz. Defl. Amp. | 17 | Characteristics Same as Type 6GB5. (13GB5 Designed for Series String Receivers.) | | | | | | | | | |
| 13GF7 | Novar T-9 | Double Tri. | 9QD | 13.0* | 0.450 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.5 11.0 | Characteristics Same as Type 6GF7. (13GF7 Designed for Series String Receivers.) | | | | | | | | | |
| 13J10 | Comp. T-9 | Double Pent. | 12BT | 13.2* | 0.450 | FM Disc. Beam Amp. | 10.0 | Characteristics Same as Type 6J10. (13J10 Designed for Series String Receivers.) | | | | | | | | | |
| 14A7 | Lock-in | Pentode | 8V | 12.6 | 0.150 | R-F Amp. | 4.4 | Characteristics Same as Type 7A7. | | | | | | | | | |
| 14AF7/XXD | Lock-in | Duotriode | 8AC | 12.6 | 0.150 | Amplifier | 2.75 | Characteristics Same as Type 7AF7. | | | | | | | | | |
| 14B6 | Lock-in | Duodiode Tri. | 8W | 12.6 | 0.150 | Det. Amp. | 0.55 | Characteristics Same as Type 7B6. | | | | | | | | | |
| 14C5 | Lock-in | Beam Pent. | 6AA | 12.6 | 0.225 | Power Amp. | 13.2 | Characteristics Same as Type 7C5. | | | | | | | | | |
| 14C7 | Lock-in | Pentode | 8V | 12.6 | 0.150 | R-F Amp. | 1.1 | 100 250 | 1.0 3.0 | 100 100 | 5.7 2.2 | 1.8 0.7 | 400000 1.0 Meg. | 2275 1575 | ..... ..... | ..... ..... |  |
| 14F7 | Lock-in | Duotriode | 8AC | 12.6 | 0.150 | A-F Amp. | 1.1 | Characteristics Same as Type 7F7. | | | | | | | | | |
| 14F8 | Lock-in | Duotriode | 8BW | 12.6 | 0.150 | Osc. Amp. | 3.85 | Characteristics Same as Type 7F8. | | | | | | | | | |
| 14GT8 | T-6½ | Duodiode Triode | 9KR | 14 | 0.150 | FM Det. Audio Amp. | 1.1 | 250 | 3.0 | ..... | 0.7 | ... | 72000 | 1000 | 72 | ..... | ..... |
| 14JG8 | T-6½ | Duodiode Triode | 9KR | 14 | 0.150 | FM Det./A-F Amp. | 1.1 | 250 | 2.0 | ..... | 2 | ... | 41000 | 2200 | 90 | ..... | ..... |
| 14Q7 | Lock-in | Heptode | 8AL | 12.6 | 0.150 | Converter | 1.1 | Characteristics Same as Type 7Q7. | | | | | | | | | |
| 14R7 | Lock-in | Duodi. Pent. | 8AE | 12.6 | 0.150 | Det. Amp. | 2.2 | Characteristics Same as Type 7R7. | | | | | | | | | |
| 15AF11 | Comp. T-9 | Pentode Duotriode | 12DP | 14.7* | 0.450 | Video Amp. AGC Keyer Sync. Sep. | ..... | Characteristics Same as Type 6AF11. (15AF11 Designed for Series String Receivers.) | | | | | | | | | |
| 15BD11 | Comp. T-9 | Hi Mu Triode Med. Mu Tri. Sharp Cutoff Pentode | 12DP | 14.7* | 0.450 | Gen. Pur. Amp. Sync. Sep. Video Amp. | 2.0 1.5 4.0 | Characteristics Same as Type 6BD11. (15BD11 Designed for Series String Receivers.) | | | | | | | | | |
| 15CW5 | T-6½ | Beam Pent. | 9CV | 15 | 0.300 | A-F Pwr. Amp. | 13 | Characteristics Same as Type 6CW5. (15CW5 Designed for Series String Receivers.) | | | | | | | | | |
| 15EA7 | T-9 | Duotriode | 8BD | 14.8* | 0.450 | Vert. Defl. Amp./Osc. | 1.0 10 | Characteristics Same as Type 6EA7. (15EA7 Designed for Series String Receivers.) | | | | | | | | | |

(1) See Frontal Section. (2) Design Maximum Values. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 † Maximum Signal. ‡ Filamentary Type. †† Conversion Transconductance. ††† Plate to Plate. †††† Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|----------|---------------------------------|----------------------------------|--------------|---------|-------|---------------------------------|--------------------------------|---|--|--------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 15FM7 | Comp. T-9 | Double Tri. | 12EJ | 14.8* | 0.450 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.0 | 10.0 | Characteristics Same as Type 6FM7. (15FM7 Designed for Series String Receivers.) | | | | | | | | |
| 15FY7 | Comp. T-9 | Double Tri. | 12EO | 14.7* | 0.450 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.0 | 7.0 | Characteristics Same as Type 6FY7. (15FY7 Designed for Series String Receivers.) | | | | | | | | |
| 15HB6 | T-6½ | Beam Pent. | 9PU | 14.7* | 0.300 | Ver. Defl. Amp. | 10 | Characteristics Same as Type 6HB6. (15HB6 Designed for Series String Receivers.) | | | | | | | | | |
| 15KY8 | Novar T-9 | Hi Mu Triode Beam Pentode | 9QT | 15.0* | 0.450 | Ver. Defl. Osc. Ver. Defl. Amp. | 1.5 | 250 | 3 | 1.4 | 40000 | 1600 | 64 | ..... |  |  |  |
| 15EW6 | T-5½ | Pentode | 7CM | 15. | 0.150 | VHF Amp. | 3.1 | 125 | 56 [■] | 125 | 11 | 3.2 | 200000 | 14000 | ..... |  |  |
| 16GK6 | T-6½ | Beam Pent. | 9GK | 16* | 0.300 | Power Amp. | 13.2 | Characteristics Same as Type 6GK6. (16GK6 Designed for Series String Receivers.) | | | | | | | | | |
| 16GY5 | Comp. T-12 | Beam Pent. | 12DR | 15.8* | 0.600 | Horiz. Defl. Amp. | 18 | Characteristics Same as Type 6GY5. (16GY5 Designed for Series String Receivers.) | | | | | | | | | |
| 17AV5GA | T-11 or T-12 | Beam Pent. | 6CK | 16.8* | 0.450 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6AV5GA. (17AV5GA Designed for Series String Receivers.) | | | | | | | | | |
| 17AX3 | Comp. T-9 | Diode | 12BL | 16.8* | 0.450 | T.V. Damper | 5.3 | Characteristics Same as Type 6AX3. (17AX3 Designed for Series String Receivers.) | | | | | | | | | |
| 17AX4GT | T-9 | Diode | 4CG | 16.8 | 0.450 | T.V. Damper | 5.28 | Characteristics Same as Type 6AX4GT. (17AX4GT Designed for Series String Receivers.) | | | | | | | | | |
| 17AX4GTA | T-9 | Diode | 4CG | 16.8* | 0.450 | T.V. Damper | 5.3 | Maximum Peak Inverse Plate Voltage = 5000 Volts. Maximum D.C. Plate Current = 125 Ma. | | | | | | | | | |
| 17AY3 | Novar T-9 | Diode | 9HP | 16.8* | 0.450 | T.V. Damper | 6.5 | Characteristics and Ratings Same as Type 6AY3. (17AY3 Designed for Series String Receivers.) | | | | | | | | | |
| 17BE3 | Comp. T-9 | Diode | 12BL | 16.8* | 0.450 | T.V. Damper | 6.5 | Characteristics Same as Type 6BE3. (17BE3 Designed for Series String Receivers.) | | | | | | | | | |
| 17BF11 | Comp. T-9 | Power Pent. Dual Control Pentode | 12EZ | 16.8* | 0.450 | A-F Out. Amp. FM Det. | 6.5 | 1.7 | Characteristics Same as Type 6BF11. (17BF11 Designed for Series String Receivers.) | | | | | | | | |
| 17BH3 | Novar T-9 | Diode | 9HP | 17* | 0.600 | T.V. Damper | 6.5 | Characteristics and Ratings Same as Type 6BH3. | | | | | | | | | |
| 17BQ6GTB | T-12 | Beam Pent. | 6AM | 16.8* | 0.450 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6BQ6GTB. (17BQ6GTB Designed for Series String Receivers.) | | | | | | | | | |
| 17BR3 | T-6½ | Diode | 9CB | 16.8* | 0.450 | T.V. Damper | 6.5 | Characteristics Same as Type 6BR3. (17BR3 Designed for Series String Receivers.) | | | | | | | | | |
| 17BS3 | Novar T-9 | Diode | 9HP | 16.8* | 0.450 | T.V. Damper | 6.0 | Characteristics Same as Type 6BS3. (17BS3 Designed for Series String Receivers.) | | | | | | | | | |
| 17C5 | T-5½ | Beam Pent. | 7CV | 16.8* | 0.450 | Power Amp. | 6.6 | Characteristics Same as Type 12C5. (17C5 Designed for Series String Receivers.) | | | | | | | | | |
| 17C8 | T-6½ | Duodi. Pent. | 9T | 17 | 0.100 | Det. R-F Amp. | 1.65 | 200 | 295 [■] | 60 | 5 | 1.75 | 1 Meg. | 2200 | ..... |  |  |
| 17C9A | T-6½ | Duotrode | 10F | 16.8* | 0.150 | VHF Amp. | 2.5 | Characteristics Same as Type 6C9. (17C9A Designed for Series String Receivers.) | | | | | | | | | |
| 17CA5 | T-5½ | Beam Pent. | 7CV | 16.8* | 0.450 | Power Amp. | 5.5 | Characteristics Same as Type 12CA5. (17CA5 Designed for Series String Receivers.) | | | | | | | | | |
| 17CU5 | T-5½ | Pentode | 7CV | 16.8* | 0.450 | Power Amp. | 6.6 | Characteristics Same as Type 6CU5. (17CU5 Designed for Series String Receivers.) | | | | | | | | | |
| 17D4 | T-9 | Diode | 4CG | 16.8* | 0.450 | T.V. Damper | 5.5 | Maximum Peak Inverse Plate Voltage = 4400 Volts. Maximum D.C. Plate Current = 155 Ma. Characteristics Same as Type 12D4. (17D4 Designed for Series String Receivers.) | | | | | | | | | |
| 17DE4 | T-9 | Diode | 4CG | 17.0* | 0.600 | T.V. Damper | 6.5 | Characteristics and Ratings Same as 6DE4. (17DE4 Designed for Series String Receivers.) | | | | | | | | | |
| 17DM4 | T-9 | Diode | 4CG | 16.8* | 0.450 | T.V. Damper | 6.5 | Characteristics Same as Type 6DM4. (17DM4 Designed for Series String Receivers.) | | | | | | | | | |
| 17DM4A | T-9 | Diode | 4CG | 16.8* | 0.450 | T.V. Damper | 6.5 | Characteristics Same as Type 6DM4A. (17DM4A Designed for Series String Receivers.) | | | | | | | | | |
| 17DQ4 | T-9 | Diode | 4CG | 16.8* | 0.450 | T.V. Damper | 6.0 | Characteristics Same as Type 6DQ4. (17DQ4 Designed for Series String Receivers.) | | | | | | | | | |
| 17DQ6 | T-12 | Beam Pent. | 6AM | 16.8* | 0.450 | Horiz. Defl. Amplifier | 16.5 | Characteristics Same as Type 6DQ6. (17DQ6 and 17DQ6A Designed for Series String Receivers.) | | | | | | | | | |
| 17DQ6A | T-12 | Beam Pent. | 6AM | 16.8* | 0.450 | Horiz. Defl. Amplifier | 18 | Characteristics Same as Type 6DQ6A. | | | | | | | | | |
| 17DQ6B | T-12 | Beam Pent. | 6AM | 16.8* | 0.450 | Horiz. Defl. Amplifier | 18 | Characteristics Same as Type 6DQ6B. (17DQ6B Designed for Series String Receivers.) | | | | | | | | | |
| 17GE5 | Comp. T-12 | Beam Pent. | 12BJ | 16.8* | 0.450 | Horiz. Defl. Amp. | 17.5 | Characteristics Same as Type 6GE5. (17GE5 Designed for Series String Receivers.) | | | | | | | | | |
| 17GJ5 | Novar T-12 | Beam Pent. | 9QK | 16.8* | 0.450 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GJ5. (17GJ5 Designed for Series String Receivers.) | | | | | | | | | |
| 17GT5 | Novar T-12 | Beam Pent. | 9NZ | 16.8* | 0.450 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GT5. (17GT5 Designed for Series String Receivers.) | | | | | | | | | |
| 17GV5 | Comp. T-12 | Beam Pent. | 12DR | 16.8* | 0.450 | Horiz. Defl. Amp. | 17.5 | Characteristics Same as Type 6GV5. (17GV5 Designed for Series String Receivers.) | | | | | | | | | |
| 17GW6 | T-12 | Beam Pent. | 6AM | 16.8* | 0.450 | Horiz. Defl. Amplifier | 17.5 | Characteristics Same as Type 6GW6. (17GW6 Designed for Series String Operation.) | | | | | | | | | |
| 17H3 | T-6½ | Diode | 9FK | 17.5* | 0.300 | T.V. Damper | 3.0 | Maximum Peak Inverse Plate Voltage = 2000 Volts. Maximum D.C. Output Current = 75 Ma. | | | | | | | | | |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|----------|---------------------------------|---------------------|--------------|---------|-------|---------------------------------|--------------------------------|-------------|---------------------|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|---|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 17HC8 | 9-T9 | Tri. Pentode | 9EX | 16.8* | 0.450 | Vert. Defl. Osc./Amp. | 1.0 | | | | | | | | | | | Characteristics Same as Type 6HC8. (17HC8 Designed for Series String Receivers.) |
| 17JB6 | Novar T-12 | Pentode | 9QL | 16.8* | 0.450 | Horiz. Defl. Amp. | 17.5 | | | | | | | | | | | Characteristics Same as Type 6JB6. (17JB6 Designed for Series String Receivers.) |
| 17JK8 | T-6½ | Duotriode | 9AJ | 16.8* | 0.150 | FM Osc. FM Amp. | 1.0 2.0 | 100 135 | 1.0 1.2 | ..... | 5.3 10 | ..... | 8000 5400 | 6800 13000 | 55 70 | ..... | ..... |  |
| 17JZ8 | Comp. T-9 | Tri. Pentode | 12DZ | 16.8* | 0.450 | Vert. Osc. Vert. Defl. Amp | 1.0 | | | | | | | | | | | Characteristics Same as Type 6JZ8. (17JZ8 Designed for Series String Receivers.) |
| 17L6GT | T-9 | Beam Pent. | 7S | 16.8* | 0.450 | Power Amp. | 11 | | | | | | | | | | | Characteristics Same as Type 25L6GT. (17L6GT Designed for Series String Receivers.) |
| 17LD8 | T-9 | Tri. Pentode | 9QT | 16.8* | 0.450 | Vert. Osc. Vert. Defl. Amp. | 1.0 7.0 | 150 120 | 5 8 | 100 | 3.3 46.0 | 4 | 11300 11700 | 1900 7100 | 21.5 ..... | ..... | ..... |  |
| 17R5 | T-5½ | Beam Pent. | 7CV | 16.8* | 0.450 | Vert. Defl. Amplifier | 4.95 | | | | | | | | | | | Characteristics Same as Type 12R5. (17R5 Designed for Series String Receivers.) |
| 17W6GT | T-9 | Beam Pent. | 7S | 16.8* | 0.450 | A-F Pwr. Amp. | 12 | | | | | | | | | | | Characteristics Same as Type 6W6GT. (17W6GT Designed for Series String Receivers.) |
| 18A5 | T-9 | Beam Pent. | 6CK | 18.5* | 0.300 | Horiz. Defl. Amplifier | 9.0 | | | | | | | | | | | Max. Peak Positive Pulse Plate Voltage = 3000 Volts. Max. D.C. Cathode Current = 90 Ma. |
| 18DZ8 | T-6½ | Tri. Beam Pentode | 9EX | 18.0 | 0.300 | A-F Voltage Amp. and Power Amp. | .825 7.15 | | | | | | | | | | | Characteristics Same as Type 6DZ8. (18DZ8 Designed for Series String Receivers.) |
| 18FW6 | T-5½ | Pentode | 7BK | 18.0 | 0.100 | R-F or I-F Amplifier | 2.5 | 100 | 68■ | 100 | 11 | 4.4 | 250000 | 4400 | ..... | ..... | ..... |  |
| 18FX6 | T-5½ | Heptode | 7CH | 18.0 | 0.100 | Converter | 1.0 | 100 | 1.5 | 100 | 2.3 | 6.2 | 400000 | 480 | ..... | ..... | ..... | Osc. Grid Res. = 20000 Ohms Osc. Grid Current = 0.5 Ma. |
| 18FY6 | T-5½ | Duodiode Tri. | 7BT | 18.0 | 0.100 | A-F Amp. | 0.5 | 100 | 1.0 | ..... | 0.6 | ..... | 77000 | 1300 | 100 | ..... | ..... |  |
| 18GD6 | T-5½ | Pentode | 7BK | 18.0 | 0.100 | R-F Amp. | 2.5 | 100 | 150■ | 100 | 5.0 | 2.0 | 500000 | 4300 | ..... | ..... | ..... |  |
| 18GE6 | T-5½ | Duodiode Tri. | 7BT | 18.0 | 0.100 | Det. Amp. | 0.5 | 100 | 1.0 | ..... | 1.0 | ..... | 40000 | 1700 | 70 | ..... | ..... |  |
| 18HB8 | T-6½ | Triode Beam Pentode | 9ME | 18 | 0.300 | Voltage Amp. S.T. A1 Amp. | .75 6.5 | 115 115 | 410■ 150■ | 115 | 2.5 33 | 7.5 | 6250 | 3900 | 74 | ..... | ..... | 3500 1000 |
| 19AQ5 | T-5½ | Beam Pent. | 7BZ | 18.9 | 0.150 | Power Amp. | 13.2 | | | | | | | | | | | Same as 6AQ5. |
| 19AU4 | T-9 | Diode | 4CG | 18.9* | 0.600 | T.V. Damper | 6.6 | | | | | | | | | | | Characteristics Same as Type 6AU4GT. (19AU4 Designed for Series String Receivers.) |
| 19AU4GTA | T-9 | Diode | 4CG | 18.9* | 0.600 | T.V. Damper | 6.6 | | | | | | | | | | | Characteristics Same as Type 6AU4GTA. (19AU4GTA Designed for Series String Receivers.) |
| 19BG6G | ST-16 T-12 | Beam Pent. | 5BT | 18.9 | 0.300 | Horiz. Defl. Amplifier | 22 | | | | | | | | | | | Characteristics Same as Type 6BG6G. |
| 19C8 | T-6½ | Triple Dio. Tri. | 9E | 18.9 | 0.150 | Det. Amp. | 1.1 | 100 | 1.0 | ..... | 0.5 | ..... | 80000 | 1250 | 100 | ..... | ..... |  |
| 19CL8A | T-6½ | Tri. Tetrode | 9FX | 18.9 | 0.150 | VHF Osc. VHF Amp. | 2.97 3.0 | | | | | | | | | | | Characteristics Same as Type 6CL8A. |
| 19DE7 | T-6½ | Duotriode | 9HF | 19.4* | 0.300 | Vert. Defl. Amp. and Osc. | 7.0 1.5 | | | | | | | | | | | Characteristics Same as Type 6DE7. (19DE7 Designed for Series String Receivers.) |
| 19EA8 | T-6½ | Tri. Pentode | 9AE | 18.9 | 0.150 | Tri. VHF Amp. Pent. Amp. | 3.0 3.1 | | | | | | | | | | | Characteristics Same as Type 6EA8. |
| 19EW7 | T-9 | Duotriode | 9HF | 18.9* | 0.300 | Vert. Osc. Vert. Defl. Amp. | 1.5 10.0 | | | | | | | | | | | Characteristics Same as Type 6EW7. (19EW7 Designed for Series String Receivers.) |
| 19EZ8 | T-6½ | Triple Triode | 9KA | 18.9 | 0.150 | VHF Amp. | 2.0 | 125 | 1.0 | ..... | 4.2 | ..... | 13600 | 4200 | 57 | ..... | ..... |  |
| 19GQ7 | T-6½ | Triple Diode | 9QM | 18.9 | 0.150 | AM Det. FM Ratio Det. | ..... |  |  |  |  |  |  |  |  |  |  | Characteristics Same as Type 6GQ7. |
| 19HR6 | T-5½ | Pentode | 7BK | 18.9* | 0.150 | FM I-F Amp. | 3.0 | | | | | | | | | | | Characteristics Same as Type 6HR6. (19HR6 Designed for Series String Receivers.) |
| 19HS6 | T-5½ | Pentode | 7BK | 18.9* | 0.150 | I-F Amp. | 3.0 | | | | | | | | | | | Characteristics Same as Type 6HS6. (19HS6 Designed for Series String Receivers.) |
| 19HV8 | T-6½ | Tri. Pentode | 9FA | 18.9 | 0.150 | A-F Amp. I-F Amp. | 0.5 3.0 | 100 125 | 1.0 1.0 | 125 | 0.8 12 | 4 | 54000 200000 | 1300 6500 | 70 | ..... | ..... |  |

(1) See Frontal Section.

(3) Has Special Mechanical and/or Life Characteristics.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)

(2) Design Maximum Values.

(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.

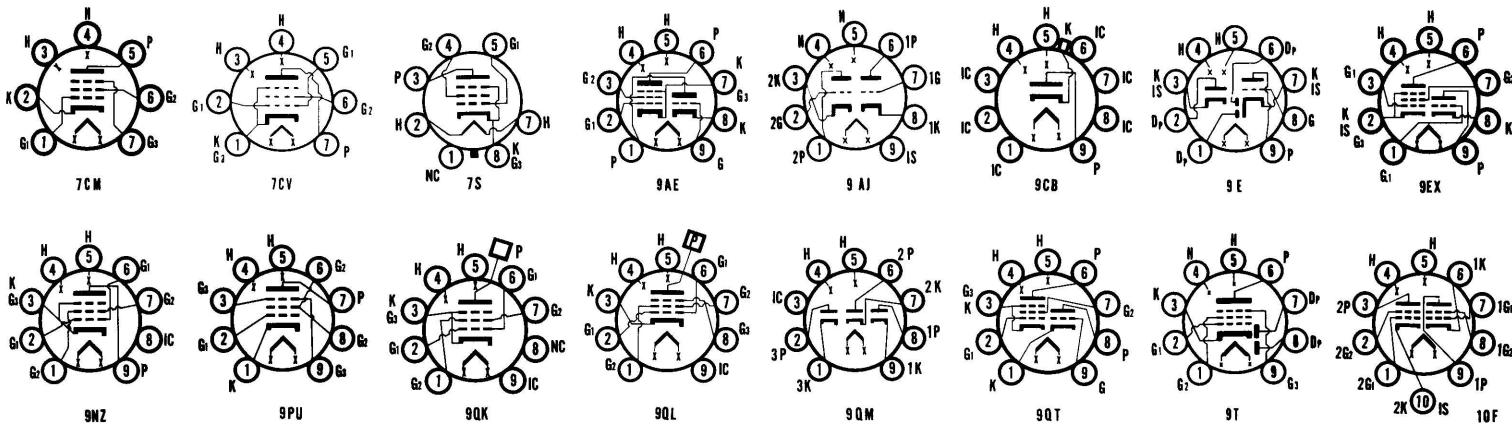
† Maximum Signal.

◆ Filamentary Type.

▲ Conversion Transconductance.

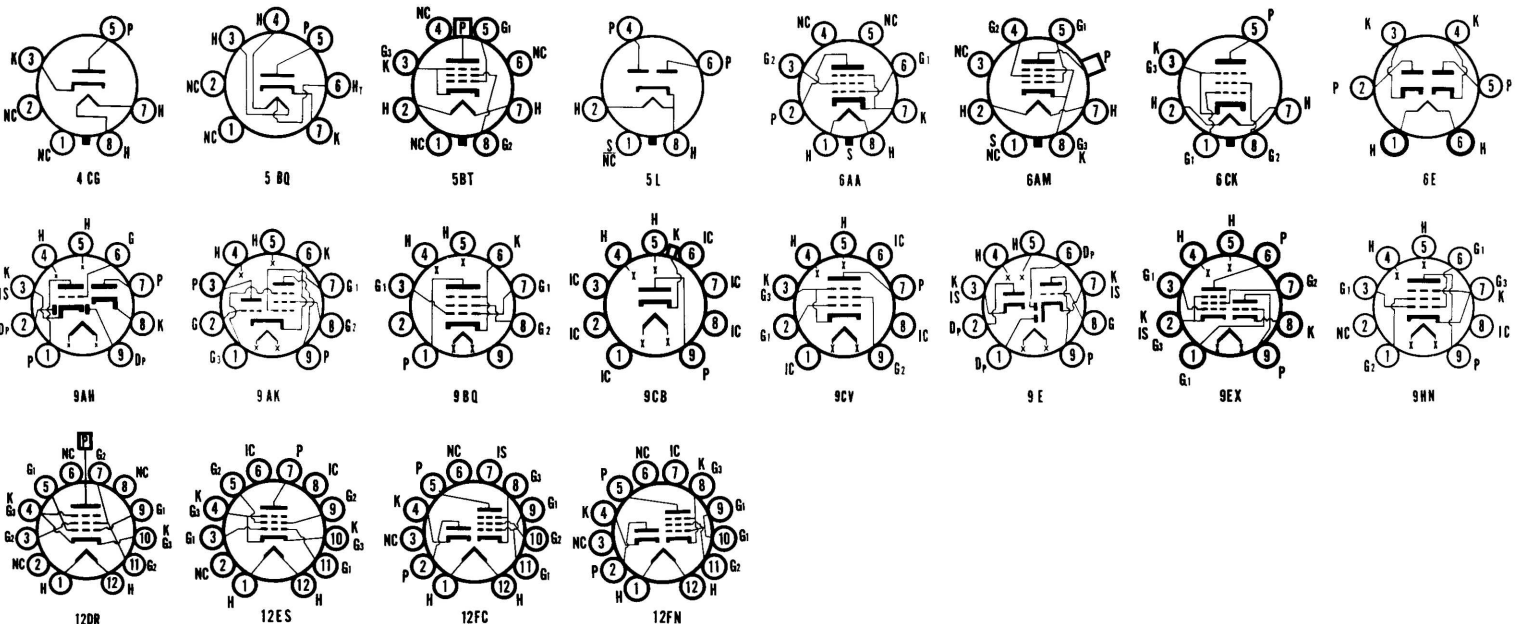
‡ Plate to Plate.

■ Cathode Resistor (ohms).



SYLVANIA TUBES

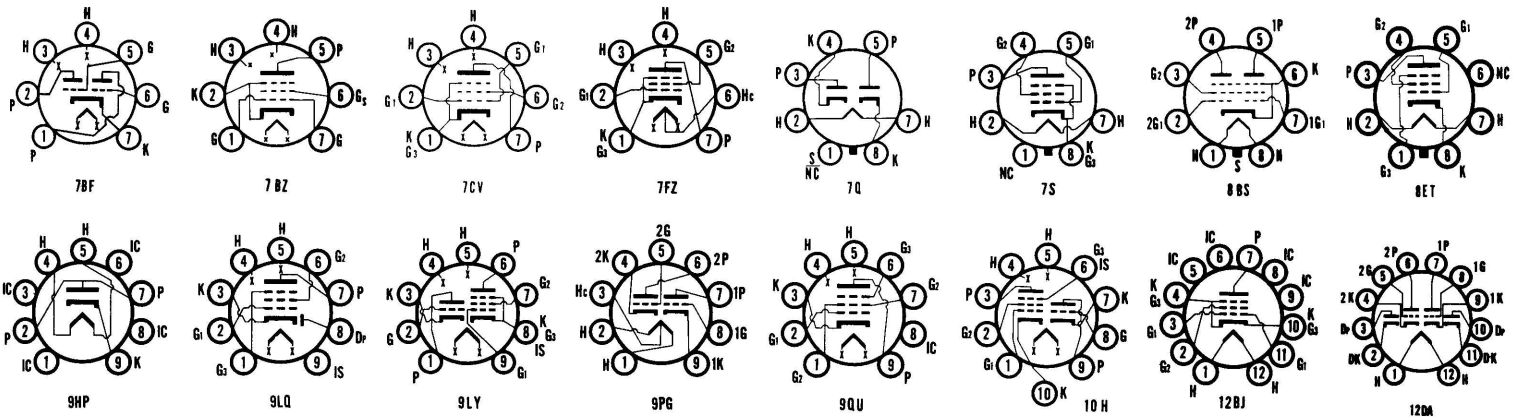
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Ampli-fication Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|----------|---------------------------------|---------------------|--------------|---------|-------|-------------------------|--------------------------------|--|---------------------|--------------|-------------------|--------------------|-------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 19J6 | T-5½ | Duotriode | 7BF | 18.9 | 0.150 | VHF Osc. Amplifier | 1.65 | Characteristics Same as Type 6J6. | | | | | | | | | |
| 19KG8 | T-6½ | Tri. Pentode | 9LY | 18.9 | 0.150 | VHF Osc. VHF Mixer | 2.5 2.5 | 125 125 | 1 1 | 125 125 | 13.5 12.0 | 4.0 | 5400 200000 | 8500 7500 | 46 | ..... | ..... |
| 19Q9 | T-6½ | Tri. Pentode | 10H | 18.9* | 0.150 | Auto. Mixer FM R-F Amp. | 3.0 2.5 | 125 125 | 1 1 | 125 125 | 12.0 14.0 | 4.0 | 200000 5000 | 6500 8000 | 40 | ..... | ..... |
| 19T8 | T-6½ | Triple Diode Triode | 9E | 18.9 | 0.150 | Det. Amp. | 1.1 | Characteristics Same as Type 6T8. | | | | | | | | | |
| 19V8 | T-6½ | Triple Diode Triode | 9AH | 18.9 | 0.150 | Det. Amp. | 1.1 | 100 250 | 1.0 3.0 | ..... | 0.8 1.0 | ..... | 54000 58000 | 1300 1200 | 70 70 | ..... | ..... |
| 19X8 | T-6½ | Tri. Pentode | 9AK | 18.9 | 0.150 | VHF Osc. Amplifier | 1.65 2.2 | Characteristics Same as Type 6X8. | | | | | | | | | |
| 20EQ7 | T-6½ | Diode Pent. | 9LQ | 20 | 0.100 | Det. R-F Amp. | 3.0 | Characteristics Same as Type 6EQ7. | | | | | | | | | |
| 20EZ7 | T-6½ | Duotriode | 9PG | 20* | 0.100 | A-F Amp. | 1.2 | 100 250 | 1.0 2.0 | ..... | 0.5 1.2 | ..... | 80000 62500 | 1250 1600 | 100 100 | ..... | ..... |
| 21EX6 | T-12 | Beam Pent. | 5BT | 21.5* | 0.600 | Horiz. Defl. Amplifier | 22 | Characteristics Same as Type 6EX6. (21EX6 Designed for Series String Receivers.) | | | | | | | | | |
| 21GY5 | Comp. T-12 | Beam Pent. | 12DR | 21.0* | 0.450 | Horiz. Defl. Amp. | 18 | Characteristics Same as Type 6GY5. (21GY5 Designed for Series String Receivers.) | | | | | | | | | |
| 21HB5 | Comp. T-12 | Beam Pent. | 12BJ | 21.0* | 0.450 | Horiz. Defl. Amp. | 18 | Characteristics Same as Type 6HB5. (21HB5 Designed for Series String Receivers.) | | | | | | | | | |
| 21HD5 | Comp. T-12 | Beam Pent. | 12ES | 21.5* | 0.600 | Horiz. Defl. Amp. | 24 | Characteristics Same as Type 6HD5. (21HD5 Designed for Series String Receivers.) | | | | | | | | | |
| 21HJ5 | Comp. T-12 | Beam Pent. | 12ES | 21.5* | 0.600 | Horiz. Defl. Amp. | 24 | Characteristics Same as Type 6HJ5. (21HJ5 Designed for Series String Receivers.) | | | | | | | | | |
| 22BH3 | Novar T-9 | Diode | 9HP | 22.4* | 0.450 | T.V. Damper | 6.5 | Characteristics and Ratings Same as Type 6BH3. | | | | | | | | | |
| 22DE4 | T-9 | Diode | 4CG | 22* | 0.450 | T.V. Damper | 6.5 | Characteristics and Ratings Same as Type 6DE4. (22DE4 Designed for Series String Receivers.) | | | | | | | | | |
| 22JG6 | Novar T-12 | Beam Pent. | 9QU | 22.0* | 0.450 | Horiz. Defl. Amp. | 17 | Max. Peak Positive Pulse Plate Voltage = 6500 Volts. Max. Cathode Current = 275 Ma. 130 20 125 80 2.5 12000 10000 | | | | | | | | | |
| 25AV5GA | T-11 or T-12 | Beam Pent. | 6CK | 25.0 | 0.300 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6AV5GA. | | | | | | | | | |
| 25AX4GT | T-9 | Diode | 4CG | 25.0 | 0.300 | T.V. Damper | 5.28 | P.I.V. = 4000 Volts Max. D.C. Plate Current = 125 Ma. Max. | | | | | | | | | |
| 25BK5 | T-6½ | Beam Pent. | 9BQ | 25.0 | 0.300 | Power Amp. | 9.9 | Characteristics Same as Type 6BK5. | | | | | | | | | |
| 25BQ6GA | T-11 | Beam Pent. | 6AM | 25.0 | 0.300 | Horiz. Defl. Amplifier | 12.1 | Characteristics and Ratings Same as Type 6BQ6G. | | | | | | | | | |
| 25BQ6GT | T-9 | Beam Pent. | 6AM | 25.0 | 0.300 | Horiz. Defl. Amplifier | 12.1 | Characteristics Same as Type 6BQ6GT. | | | | | | | | | |
| 25BQ6GTB | T-9 | Beam Pent. | 6AM | 25.0 | 0.300 | Horiz. Amp. | 12.1 | Characteristics Same as Type 6BQ6GTB. | | | | | | | | | |
| 25BR3 | T-6½ | Diode | 9CB | 25.0* | 0.300 | T.V. Damper | 6.5 | Characteristics Same as Type 6BR3. (25BR3 Designed for Series String Receivers.) | | | | | | | | | |
| 25C5 | T-5½ | Beam Pent. | 7CV | 25.0 | 0.300 | Power Amp. | 6.6 | 120 | 8 | 110 | 49 | 4.0 | 10000 | 7500 | ..... | 2500 | 2300 |
| 25CA5 | T-5½ | Beam Pent. | 7CV | 25.0 | 0.300 | Power Amp. | 5.5 | Characteristics Same as Type 6CA5. | | | | | | | | | |
| 25CD6GB | T-12 | Beam Pent. | 5BT | 25.0* | 0.600 | Horiz. Defl. Amplifier | 22 | Characteristics Same as Type 6CD6GA. (25CD6GB Designed for Series String Receivers.) | | | | | | | | | |
| 25DK4 | T-5½ | Diode | 5BQ | 25 | 0.150 | H-W Rect. | ..... | 117 A.C. Volts, RMS, 90 Ma. D.C. Output. (Condenser Input to Filter.) | | | | | | | | | |
| 25DN6 | T-12 | Beam Pent. | 5BT | 25.0* | 0.600 | Horiz. Defl. Amplifier | 16.5 | Peak Positive Pulse Plate Voltage = 6600 Volts Max. D.C. Cathode Current = 200 Ma. (25DN6 Designed for Series String Receivers.) | | | | | | | | | |
| 25DQ6A | T-12 | Beam Pent. | 6AM | 25* | 0.300 | Horiz. Defl. Amplifier | 16.5 | Characteristics Same as Type 6DQ6A. (25DQ6A Designed for Series String Receivers.) | | | | | | | | | |
| 25DT5 | T-6½ | Beam Pent. | 9HN | 25* | 0.300 | Vert. Defl. Amplifier | 9.0 | Characteristics Same as Type 6DT5. (25DT5 Designed for Series String Receivers.) | | | | | | | | | |
| 25EC6 | T-12 | Beam Pent. | 5BT | 25.0* | 0.600 | Horiz. Defl. Amp. | 10.0 | Max. Peak Positive Pulse Plate Voltage = 7000 Volts. Max. Cathode Current = 200 Ma. 135 22.5 135 70 4.5 4700 7500 | | | | | | | | | |
| 25EH5 | T-5½ | Beam Pent. | 7CV | 25 | 0.300 | S.T. A1 Amp. | 5.5 | Characteristics Same as Type 6EH5. | | | | | | | | | |
| 25F5 | T-5½ | Beam Pent. | 7CV | 25.0 | 0.150 | Power Amp. | 4.5 | 110 | 7.5 | 110 | 36.0 | 7.0 | 16000 | 5800 | ..... | 2500 | 1200 |



AVERAGE CHARACTERISTICS

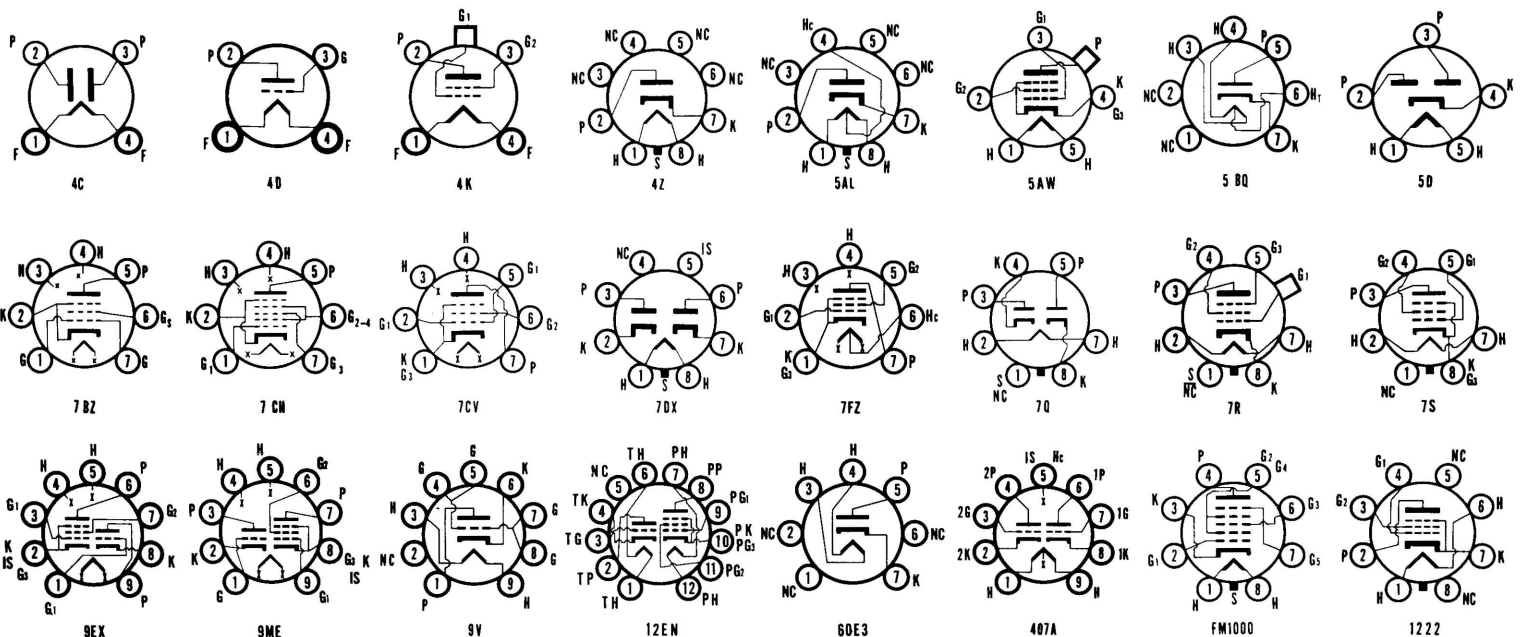
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-----------------------------------|---------------------------------|--------------------|--------------|------------------|-------|---|--------------------------------|---|---------------------|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 25F5A | T-5½ | Beam Pent. | 7CV | 25.0 | 0.150 | Power Amp. | 5.0 | 110 | 7.5 | 110 | 45.0 | 7.3 | 13000 | 6400 | .... | 2500 | 1500 |
| 25L6GT | T-9 | Beam Pent. | 7S | 25.0 | 0.300 | Power Amp. P-PA ¹ Amp. | 11 | 110 | 7.5 | 110 | 49.0 | 4.0 | 13000 | 8000 | .... | 2000 | 2100 |
| 25W4GT | T-9 | Diode | 4CG | 25.0 | 0.300 | H-W Rect. | 3.85 | 350 A.C. Volts RMS, 125 Ma. D.C. Output. Condenser Input to Filter. | | | | | | | | | |
| 25W6GT | T-9 | Beam Pent. | 7S | 25.0 | 0.300 | Power Amp. | 11 | 110 | 7.5 | 110 | 50 | 4.0 | 13000 | 8000 | .... | 2000 | 2100 |
| 25Z5 | ST-12 | Duodiode | 6E | 25.0 | 0.300 | Doubler | .... | Characteristics Same as Type 25Z6GT. | | | | | | | | | |
| 25Z6GT | T-9 | Duodiode | 7Q | 25.0 | 0.300 | Doubler H-W Rect. | .... | 117 A.C. Volts Per Plate, RMS, 75 Ma. Output Current. 235 A.C. Volts, RMS, 75 Ma. Output Current Per Plate. | | | | | | | | | |
| 27GB5 | Magnoval T-9 | Beam Pent. | 9HN | 27 | 0.300 | Horiz. Defl. Amplifier | 17 | Characteristics and Ratings Same as Type 6GB5. (27GB5 Designed for Series String Receivers.) | | | | | | | | | |
| 28D7 28D7W (3) GB-28D7W (3) | Lock-in | Duo. Beam Pentode | 8BS | 28.0 | 0.400 | Amplifier (per section) P.P. A2 Total | 3.0 | 28 | 390 [■] | 28 | 9.0 | 0.7 | 4200 | 3400 | .... | 4000 | 80 |
| 28GB5 | Magnoval T-9 | Beam Pent. | 9HN | 28 | 0.300 | Horiz. Defl. Amplifier | 17 | Characteristics and Ratings Same as Type 6GB5. | | | | | | | | | |
| 28HD5 | Comp. T-12 | Beam Pent. | 12ES | 28.0* | 0.450 | Horiz. Defl. Amp. | 24.0 | Characteristics Same as Type 6HD5. (28HD5 Designed for Series String Receivers.) | | | | | | | | | |
| 30AG11 | Comp. T-9 | Duodiode Duotriode | 12DA | 30.0 | 0.150 | FM Multiplex Service | 2.0 | Characteristics Same as Type 6AG11. | | | | | | | | | |
| 30CW5 | T-6½ | Beam Pent. | 9CV | 30.0 | 0.150 | S.T. A1 Amp. S.T. A1 Amp. P.P. AB1 Amp. | 13 | Characteristics Same as Type 6CW5. | | | | | | | | | |
| 30HD5 | Comp. T-12 | Beam Pent. | 12ES | 30.0* | 0.450 | Horiz. Defl. Amp. | 24.0 | Characteristics Same as Type 6HD5. (30HD5 Designed for Series String Receivers.) | | | | | | | | | |
| 30HJ5 | Comp. T-12 | Beam Pent. | 12ES | 30.0* | 0.450 | Horiz. Defl. Amp. | 24.0 | Characteristics Same as Type 6HJ5. (30HJ5 Designed for Series String Receivers.) | | | | | | | | | |
| 32ET5 | T-5½ | Beam Pent. | 7CV | 32 | 0.100 | Power Amp. | 5.4 | 110 | 7.5 | 110 | 30 | 2.8 | 21500 | 5500 | .... | 2800 | 1200 |
| 33GT7 | Comp. T-12 | Diode Pent. | 12FC | 33.6 | 0.450 | T.V. Damper Horiz. Defl. Amp. | 3.5 | Max. Peak Inverse Plate Voltage = 2500 Volts. Max. D.C. Cathode Current = 125 Ma. Max. Peak Positive Pulse Plate Voltage = 3500 Volts. Max. Cathode Current = 140 Ma. | | | | | | | | | |
| 33GY7 | Comp. T-12 | Diode Pent. | 12FN | 33.6* | 0.450 | T.V. Damper Horiz. Defl. Amp. | 3.8 | Max. Peak Inverse Plate Voltage = 4200 Volts. Max. D.C. Cathode Current = 135 Ma. Max. Peak Positive Pulse Plate Voltage = 5000 Volts. Max. Cathode Current = 155 Ma. | | | | | | | | | |
| EL34/6CA7 | T-10 (SP) | Beam Pent. | 8ET | 6.3 | 1.500 | S.T. A1 Amp. P.P. AB1 Amp. | 27.5 | 250 | 13.5 | 250 | 100 | 15 | 15000 | 11000 | .... | 2000 | 11000 |
| GZ34 | T-11 | Duodiode | 5L | 5.0 [†] | 1.900 | F-W Rect. | .... | Characteristics and Ratings Same as Type 5AR4. | | | | | | | | | |
| 34GD5 | T-5½ | Beam Pent. | 7CV | 34 | 0.100 | S.T. A1 Amp. | 5.0 | 110 | 7.5 | 110 | 35 | 3 | 13000 | 5700 | .... | 2500 | 1300 |
| 35A5 | Lock-in | Beam Pent. | 6AA | 35.0 | 0.150 | Power Amp. | 9.35 | 110 | 7.5 | 110 | 40.0 | 3.0 | 14000 | 5800 | .... | 2500 | 1500 |
| 35B5 | T-5½ | Beam Pent. | 7BZ | 35.0 | 0.150 | Power Amp. | 4.95 | 110 | 7.5 | 110 | 40.0 | 3.0 | .... | 5800 | .... | 2500 | 1500 |
| 35C5 | T-5½ | Beam Pent. | 7CV | 35.0 | 0.150 | Power Amp. | 4.95 | 110 | 7.5 | 110 | 40 | 3.0 | .... | 5800 | .... | 2500 | 1500 |
| 35CD6GA | T-12 | Beam Pent. | 5BT | 35.0* | 0.450 | Horiz. Defl. Amplifier | 22 | Characteristics Same as Type 6CD6GA. (35CD6GA Designed for Series String Receivers.) | | | | | | | | | |
| 35DZ8 | T-6½ | Tri. Beam Pentode | 9EX | 35 | 0.150 | A-F Voltage Amp. and Power Amp. | .825 | Characteristics Same as Type 6DZ8. (35DZ8 Designed for Series String Receivers.) | | | | | | | | | |
| 35EH5 | T-5½ | Beam Pent. | 7CV | 35 | 0.150 | A-F Pwr. Amp. | 5.5 | Characteristics Same as Type 6EH5. | | | | | | | | | |
| 35GL6 | T-5½ | Beam Pent. | 7FZ | 35 | 0.150 | S.T. A1 Amp. | 5.5 | 110 | 7.5 | 110 | 45-47† | 3-9† | 12000 | 7500 | .... | 2500 | 1800 |

(1) See Frontal Section. (3) Has Special Mechanical and/or Life Characteristics. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 (2) Design Maximum Values. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. † Plate to Plate. ■ Cathode Resistor (ohms).
 † Maximum Signal. ‡ Filamentary Type. † Conversion Transconductance. † Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

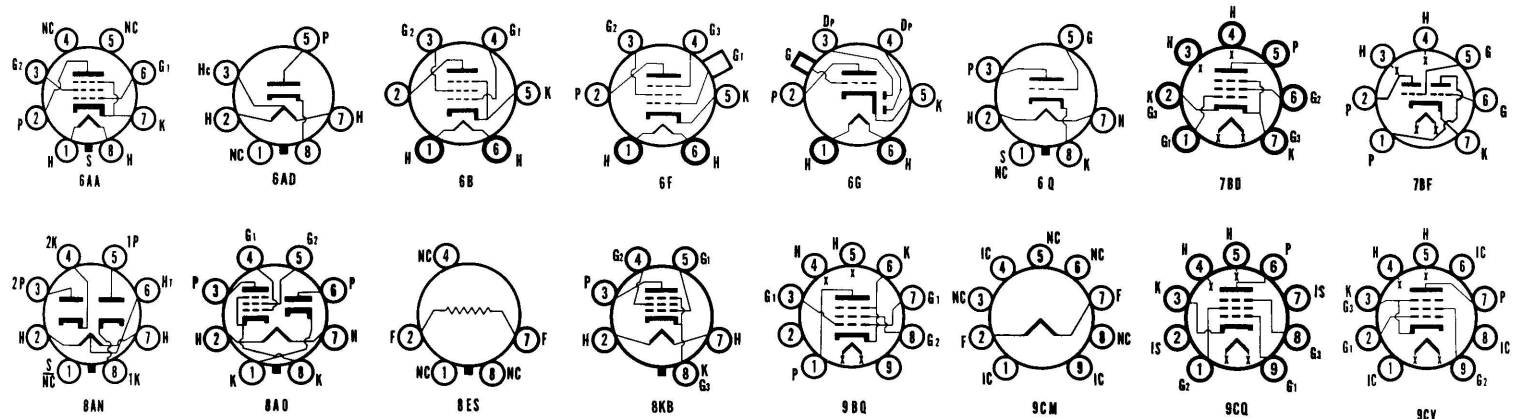
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Amplifi-cation Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--------|---------------------------------|-------------------|--------------|---------|-------|---|--------------------------------|--|--|-------------------------|------------------------|--------------------------|-------------------------|---------------------------|-----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 35HB8 | T-6½ | Triode Beam Pent. | 9ME | 35 | 0.150 | Voltage Amp. S.T. A1 Amp. | .75 6.5 | Characteristics Same as Type 18HB8. | | | | | | | | | |
| 35L6GT | T-9 | Beam Pent. | 7S | 35.0 | 0.150 | Power Amp. | 9.35 | 110 200 | 7.5 8.0 | 110 110 | 40.0 43.0 | 3.0 2.0 | 14000 34000 | 5800 6100 | ..... | 2500 5000 | 1500 3000 |
| 35W4 | T-5½ | Diode | 5BQ | 35.0 | 0.150 | H-W Rect. | ..... | 117 A.C. Volts, RMS, 60 Ma. Output Current with Panel Lamp. 117 A.C. Volts, RMS, 100 Ma. Output Current without Panel Lamp. | | | | | | | | | |
| 35Y4 | Lock-in | Diode | 5AL | 35.0 | 0.150 | H-W Rect. | ..... | 235 Max. A.C. Volts, RMS, 60 Ma. Output Current with Panel Lamp. 235 Max. A.C. Volts, RMS, 100 Ma. Output Current without Panel Lamp. | | | | | | | | | |
| 35Z3 | Lock-in | Diode | 4Z | 35.0 | 0.150 | H-W Rect. | ..... | 235 Max. A.C. Volts Per Plate, RMS, 100 Ma. Output Current. Condenser Input to Filter | | | | | | | | | |
| 35Z5GT | T-9 | Diode | 6AD | 35.0 | 0.150 | H-W Rect. | ..... | Characteristics Same as Type 35Y4. | | | | | | | | | |
| 36AM3 | T-5½ | Diode | 5BQ | 36 | 0.100 | H-W Rect. | ..... | 117 A.C. Volts, RMS, 75 Ma. Condenser Input to Filter. | | | | | | | | | |
| 36AM3A | T-5½ | Diode | 5BQ | 36 | 0.100 | H-W Rect. | ..... | 120 A.C. Volts Per Plate, RMS, 75 Ma. Condenser Input to Filter. | | | | | | | | | |
| EL37 | Curved Bulb | Beam Pent. | 7S | 6.3 | 1.400 | S.T. A1 Amp. P.P.AB1 Amp. | ..... | 250 400 | 13.5 36 | 250 400 | 100 100-276† | 13.5 12-72† | 13500 | 11000 ..... | ..... | 2500 3250† | 11500 69000 |
| 40A1 | T-9 | Ballast | 8ES | ..... | ..... | Horiz. Reg. | ..... | Avg. Operating Current—0 Ma. at 20 Volts; 150 Ma. at 40 Volts; 155 Ma. at 60 Volts. | | | | | | | | | |
| 40B2 | T-9 | Ballast | 8ES | ..... | ..... | Horiz. Reg. | ..... | Avg. Operating Current—140 Ma. at 20 Volts; 150 Ma. at 40 Volts; 155 Ma. at 60 Volts. | | | | | | | | | |
| 40FR5 | T-5½ | Power Pent. | 7CV | 40 | 0.100 | A-F Power Amplifier | 5.2 | 110 115 | 7.5 180 ^m | 110 115 | 32 34 | 3 7 | 20000 | 6000 ..... | ..... | 2800 3200 | 1500 1300 |
| 41 | ST-12 | Power Pent. | 6B | 6.3 | 0.400 | Power Amp. | 9.35 | Characteristics Same as Type 6K6GT. | | | | | | | | | |
| 42 | ST-14 | Power Pent. | 6B | 6.3 | 0.700 | Power Amp. | 12.1 | Characteristics Same as Type 6F6G. | | | | | | | | | |
| 43 | ST-14 | Power Pent. | 6B | 25.0 | 0.300 | Power Amp. | 5.83 | Characteristics Same as Type 25A6GT. | | | | | | | | | |
| 45 | ST-14 | Triode | 4D | 2.5† | 1.500 | Power Amp. | 11 | 180 250 275 | 31.5 50.0 56.0 | ..... ..... ..... | 31.0 34.0 36.0 | ..... ..... ..... | 1650 1610 1700 | 2125 2175 2050 | 3.5 3.5 3.5 | 2700 3900 4600 | 830 1600 2000 |
| 50A1 | T-6½ | Ballast | 9CM | ..... | ..... | Fil. Ballast | ..... | Avg. Operating Current—59 Ma. at 30 Volts; 54 Ma. at 50 Volts; 56 Ma. at 65 Volts. | | | | | | | | | |
| 50A5 | Lock-in | Beam Pent. | 6AA | 50.0 | 0.150 | Power Amp. | 11 | 110 200 | 7.5 8.0 | 110 110 | 49.0 50.0 | 4.0 1.5 | 13000 28000 | 8000 8000 | ..... | 2000 4000 | 2100 3800 |
| 50AX6G | ST-14 | Duodiode | 7Q | 50.0 | 0.300 | F-W Rect. | ..... | Characteristics Same as Type 6AX6G. | | | | | | | | | |
| 50B5 | T-5½ | Beam Pent. | 7BZ | 50.0 | 0.150 | Power Amp. | 6.6 | 120 | 8 | 110 | 49 | 4.0 | 10000 | 7500 | ..... | 2500 | 2300 |
| 50BK5 | T-6½ | Beam Pent. | 9BQ | 50.0 | 0.150 | Power Amp. | 9.9 | 250 | 5.0 | 250 | 35 | 3.5 | 0.1 Meg. | 8500 | ..... | 6500 | 3500 |
| 50BM8 | T-6½ | Tri. Pentode | 9EX | 50 | 0.100 | A-F Tri. Amp. Power Amp. | 1.1 7.7 | 100 100 200 | 0 6 16 | 100 200 | 3.5 26 35 | 5 7 | 28000 15000 20000 | 2500 6800 6400 | ..... | 3900 5600 | 1050 3500 |
| 50C5 | T-5½ | Beam Pent. | 7CV | 50.0 | 0.150 | Power Amp. | 6.6 | 120 | 8 | 110 | 49. | 4.0 | 10000 | 7500 | ..... | 2500 | 2300 |
| 50CA5 | T-5½ | Beam Pent. | 7CV | 50 | 0.150 | Power Amp. | 5.5 | Characteristics Same as Type 6CA5. | | | | | | | | | |
| 50DC4 | T-5½ | Diode | 5BQ | 50 | 0.150 | H-W Rect. | ..... | 117 A.C. Volts Per Plate, RMS, 110 Ma. Output Current. Heater Tap Voltage (Pin 4 to Pin 6) = 7.5 Volts. | | | | | | | | | |
| 50EH5 | T-5½ | Beam Pent. | 7CV | 50 | 0.150 | S.T. A1 Amp. | 5.5 | Characteristics Same as Type 6EH5. | | | | | | | | | |
| 50FA5 | T-5½ | Beam Pent. | 7CV | 50 | 0.150 | S.T. A1 Amp. | 5.2 | 110 | 7.5 | 110 | 40 | 3 | 13000 | 5800 | ..... | 2500 | 1500 |
| 50FE5 | T-6½ | Beam Pent. | 8KB | 50 | 0.150 | S.T. A1 Amp. P.P. AB1 Amp. | 14.5 | Characteristics Same as Type 6FE5. | | | | | | | | | |
| 50FK5 | T-5½ | Power Pent. | 7CV | 50 | 0.100 | S.T. A1 Amp. | 5.0 | 110 | 62 ^m | 110 | 32 | 8.5 | 14000 | 12800 | ..... | 3000 | 1200 |
| 50FY8 | T-6½ | Tri. Beam Pentode | 9EX | 50 | 0.150 | Tri. Volt. Amp. Pent. S.T.A1 A. Pent. P.P.A1 A. | 1.0 1.0 1.0 | 125 125 125 | 1.5 120 ^m 62 ^m | 125 125 | 2.5 70-66† | 10-19† | 17000 5000 | 2700 7500 | 46 | 2000† 4000† | 3000 6000 |
| 50HC6 | T-5½ | Pentode | 7FZ | 50 | 0.150 | S.T. A1 Amp. | 5.5 | 110 | 62 ^m | 115 | 42 | 11.5 | 11000 | 14600 | ..... | 3000 | 1.4 |
| 50L6GT | T-9 | Beam Pent. | 7S | 50.0 | 0.150 | Power Amp. | 11 | Characteristics Same as Type 25L6GT. | | | | | | | | | |
| 50X6 | Lock-in | Duodiode | 7DX | 50.0 | 0.150 | H-W Rect. Doubler | ..... | 235 Volts RMS Per Plate, 75 Ma. D.C. Output Per Plate. 117 Volts RMS Per Plate, 75 Ma. D.C. Output. | | | | | | | | | |
| 50Y6GT | T-9 | Duodiode | 7Q | 50.0 | 0.150 | F-W Rect. | ..... | Characteristics Same as Type 25Y6GT. | | | | | | | | | |



AVERAGE CHARACTERISTICS

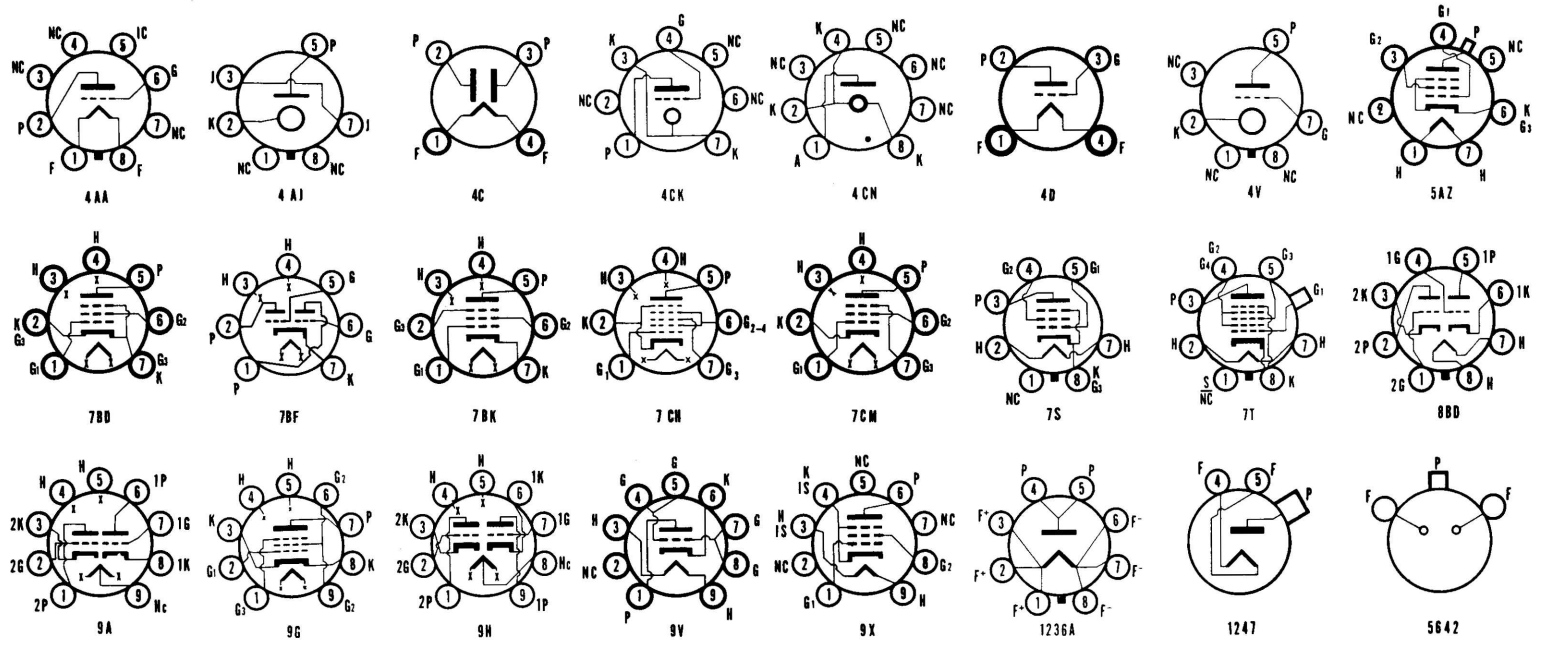
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts [†] | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Res. Ohms | Transcon-ductance Micros. | Ampli-fication Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|----------------------|---------------------------------|--------------------|--------------|----------------------|----------------|--|---------------------------------|---|-----------------------------|-------------------------|---|---|---|---------------------------|-------------------------|---|--------------------------|--|
| | Bulb Size or Style [†] | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 50Y7GT | T-9 | Duodiode | 8AN | 46.0 | 0.150 | Doubler H-W Rect. | | 117 A.C. Volts, RMS, 65 Ma. Output with Panel Lamp. | | | | | | | | | | |
| 56R9 | Comp. T-9 | Tri. Pentode | 12EN | Tri. 14.0 Pent. 42.0 | 0.150 0.150 | A-F Amp. Power Amp. | 1.0 6.5 | 100 120 | 1500 [■] 8.0 | 110 | 0.6 50.0 | 8.5 | 55500 10000 | 1800 7500 | 100 | 2500 | 2300 | |
| 60E3 | T-5½ | Diode | 60E3 | 60 | 0.150 | H-W Rect. | ..... | 117 Volts, RMS, 110 Ma. D.C. Output. Condenser Input. | | | | | | | | | | |
| 60FX5 | T-5½ | Pentode | 7CV | 60 | 0.100 | S.T. A1 Pwr. Amplifier | 5.5 | 110 | 62 [■] | 115 | 36-35 | 10-12 | 17500 | 13500 | ..... | 3000 | 1300 | |
| KT66 | Curved Bulb | Beam Pent. | 7S | 6.3 | 1.270 | S.T.A1 Amp. P.P.AB1 Amp. | ..... | 250 450 | 15 250 [■] | 250 415 | 85 105-125† | 6.3 5-18† | 22500 | 6300 ..... | ..... ..... | 2200 8000† | 7250 30000 | |
| 75 | ST-12 | Duodiode Tri. | 6G | 6.3 | 0.300 | Det. Amp. | ..... | 250 | 2.0 | ..... | 0.9 | ..... | 91000 | 1100 | 100 | ..... | ..... |  |
| 78 | ST-12 | Pentode | 6F | 6.3 | 0.300 | R-F Amp. | 3.0 | 90 180 250 | 3.0 3.0 3.0 | 90.0 75.0 100 | 5.4 4.0 7.0 | 1.3 1.0 1.7 | 300000 1 Meg. 800000 | 1275 1100 1450 | ..... ..... ..... | ..... ..... ..... | ..... ..... ..... |  |
| 80 | ST-14 | Duodiode | 4C | 5.0 | 2.000 | F-W Rect. | ..... | 350 A.C. Volts Per Plate, RMS, 125 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | | |
| 83 | ST-16 | Duodiode | 4C | 5.0 | 3.00 | F-W Rect. | ..... | 450 A.C. Volts Per Plate, RMS, 125 Ma. Output Current. Choke Input to Filter. | | | | | | | | | | |
| 84/6Z4 | ST-12 | Duodiode | 5D | 6.3 | 0.500 | F-W Rect. | ..... | 325 A.C. Volts Per Plate, RMS, 60 Ma. Output Current. Condenser Input to Filter. | | | | | | | | | | |
| EL84/6BQ5 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | Power Amp. | 13.2 | Characteristics Same as Type 6BQ5. | | | | | | | | | | |
| EL86 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | A-F Pwr. Amp. | 13 | Characteristics Same as Type 6CW5. | | | | | | | | | | |
| EF86/6267 | T-6½ | Pentode | 9CQ | 6.3 | 0.200 | A-F Amp. | 1.1 | 250 | 2.0 | 140 | 3.0 | 0.6 | 2.5 Meg. | 1800 | ..... | ..... | ..... |  |
| KT88 | ST-16 | Beam Pent. | 7S | 6.3 | 1.800 | P.P.AB1 Amp. | ..... | 450 | 65 | 450 | 100-240† | (Plate and Grid No. 2 Current.) | ..... | ..... | ..... | 3800† | 65000 | |
| VR-90-105-150 | | | | | | | Now Listed as OB3, OC3 and OD3. | | | | | | | | | | | |
| 117L7/M7GT | T-9 | Diode Beam Pentode | 8AO | 117 | 0.090 | H-W Rect. Power Amp. | 6.6 | 117 A.C. Volts, RMS, 75 Ma. Output Current. | Condenser Input to Filter. | | | | | | | | | |
| 117Z6GT | T-9 | Duodiode | 7Q | 117 | 0.075 | Voltage Dblr. | ..... | 117 A.C. Volts Per Plate, RMS, 60 Ma. Output Current. | | | | | | | | | | |
| 407A GB-407A (3) | T-6½ | Duotriode | 407A | 40 20 | 0.050 0.100 | Amplifier | 1.35 | 150 | 240 [■] | | 8.2 | ..... | 6370 | 5500 | ..... | ..... | ..... |  |
| 408A GB-408A (3) | T-5½ | Pentode | 7BD | 20 | 0.050 | Amplifier | 1.7 | 120 | 200 [■] | 120 | 7.0 | 2.2 | 340000 | 5000 | ..... | ..... | ..... |  |
| 417A | T-6½ | Triode | 9V | 6.3 | 0.300 | UHF R-F Amp. | 4.0 | Characteristics Same as Type 5842. | | | | | | | | | | |
| 807 807W (3) | ST-16 ST-12 | Beam Pent. | 5AW | 6.3 | 0.900 | P.P.AB1 Amp. P.P.AB2 Amp. P.P.AB2 Amp. | 25 | 400 400 600 | 45 25 30 | 300 300 | 60-140† 90-240† 60-200† | 2.15† 0.7-16† | (Current, Output for 2 Tubes) (Current, Output for 2 Tubes) (Current, Output for 2 Tubes) | 3000 3200 6400 | 15000 55000 80000 | | | |
| 884 | ST-12 | Gas Triode | 6Q | 6.3 | 0.600 | Relay Tube | ..... | 300 | 30 | ..... | 75 | For Relay Operation Limit Time to 30 Secs. 300 Ma. Pa Current. 16 Volt Tube Drop. |  |  |  |  | ..... |  |
| FM1000 | Lock-in | Heptode | FM 1000 | 6.3 | 0.300 | F-M Det. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 1216 (3) GB-1216 (3) | T-5½ | Duotriode | 7BF | 6.3 | 0.300 | Computer | 0.55 | 100 150 150 | 470 [■] 0 10 | ..... ..... ..... | 4.8 4.8 Min. 0.1 Max. | Plate Res. = 20K Ohms. Plate Res. = 20K Ohms. | 7950 | 3400 | 27 | Grid Res. = 47K Ohms. Grid Res. = 47K Ohms. | ..... |  |
| 1217 (3) GB-1217 (3) | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Dual-Control Computer | 1.0 | 67.5 67.5 150 | 0 4 0 | 67.5 67.5 75 | Grid No. 3 = 0 Volts Grid No. 3 = 0 Volts 5.8 | 9 | 2400 1700 ..... | ..... ..... ..... | ..... ..... ..... | ..... ..... ..... |  |  |
| 1221 | ST-12 | Pentode | 6F | 6.3 | 0.300 | Amplifier | .825 | Special Non-Microphonic Tube, Characteristics Same as Type 6C6. | | | | | | | | | | |
| 1222A | ST-14 | Beam Pent. | 1222 | 6.3 | 0.900 | Power Amp. | 20.9 | Characteristics Similar to Type 6L6GA. | | | | | | | | | | |
| 1223 | ST-12 | Pentode | 7R | 6.3 | 0.300 | Amplifier | .825 | "G" Equivalent of Type 1221 Above. | | | | | | | | | | |
| 1229 | ST-12 | Tetrode | 4K | 2.0† | 0.060 |  | ..... | Special Type 32. Made for Low Grid Current Application. | | | | | | | | | | |

(1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. ‡ Filamentary Type. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) †† Plate to Plate. ††† Cathode Resistor (ohms).



SYLVANIA TUBES

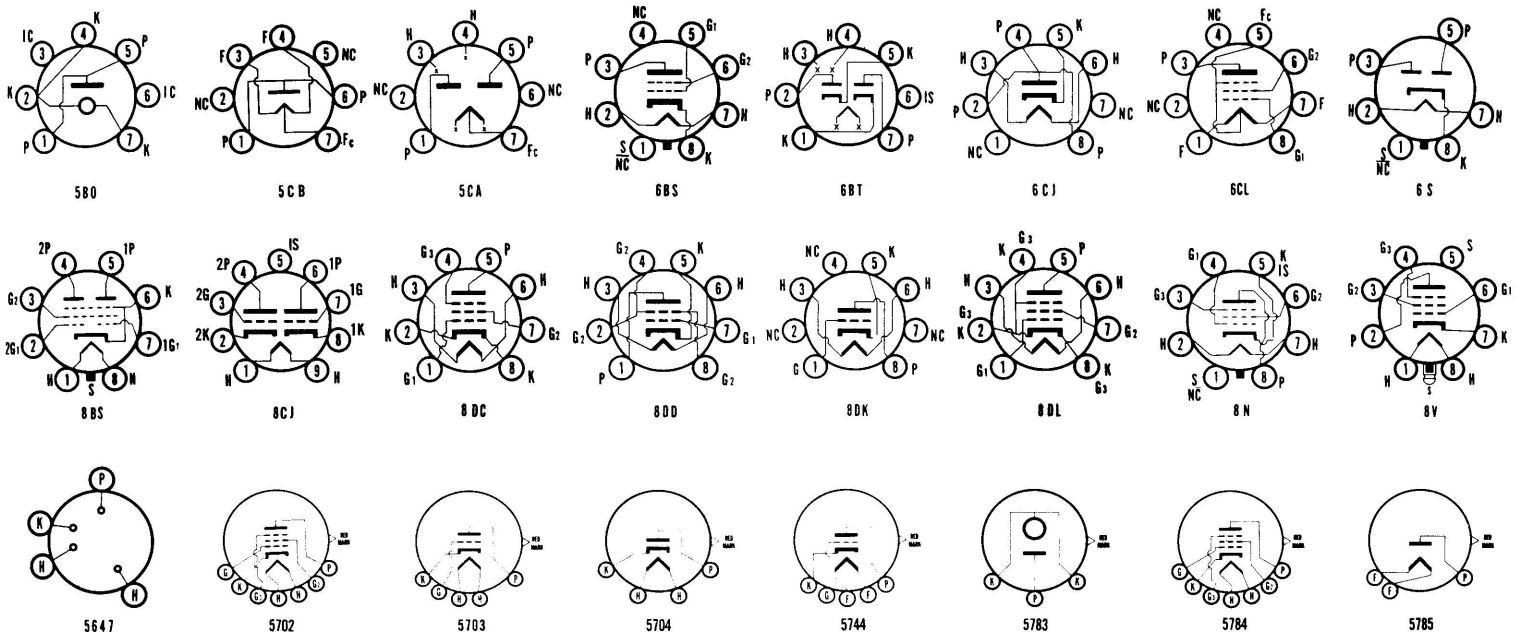
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--|---------------------------------|---------------------|------------------|-------------|----------------|------------------------------|--------------------------------|--|---------------------|--------------|-------------------|--------------------|--|-------------------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 1230 | T-9 | Triode | 4D | 2.0 | 0.060 |  | .... | Special Type 30. Made for Low Grid Current Applications. | | | | | | | | | |
| 1231 | Lock-in | Pentode | 8V | 6.3 | 0.450 | R-F Amp. Tet. Amp. | .... | 300 | 200 [■] | 150 | 10.0 | 2.5 | 700000 | 5500 | 3850 | .... | .... |
| 1232 | Now Known as Type 7G7. | | | | | | | 300 | 200 [■] | 150 | 12.0 | 0.5 | 540000 | 6500 | 3500 | .... | .... |
| 1236A | T-9 | Diode | 1236A | 1.9 | 0.450 | Regulator | .... | Plate Voltage = 330 Volts (Abs. Max.). D.C. Current = 0.8 Ma. (Abs. Max.). Plate Current = 0.63 Ma. Plate Load Resistance = 0.25 Meg. | | | | | | | | | |
| 1238 | Lock-in | Duo. Beam Amplifier | 8BS | 28.0 | 0.400 | Amplifier | 3.3 | Characteristics Similar to 28D7. | | | | | | | | | |
| 1247 | T-3 | Diode | 1247 | 0.7 | 0.065 | R-F Probe | .... | 300 A.C. Volts RMS, 0.4 Ma. D.C. Plate Current. | | | | | | | | | |
| 1265 | ST-12 | Diode | 4AJ | .... | .... | Voltage Reg. | .... | Starting Voltage = 135, Operating Voltage = 90, Operating Current = 5 to 30 Ma. | | | | | | | | | |
| 1266 | T-9 | Diode | 4AJ No Jumper | .... | .... | Regulator | .... | Voltage Regulator Similar to Type OB3/VR-90-30, Except Regulating at 70 Volts. | | | | | | | | | |
| 1267 | T-9 | Gas Triode | 4V | .... | .... | Relay Tube | .... | Similar to Type OA4G. | | | | | | | | | |
| 1273 | Lock-in | Pentode | 8V | 6.3 | 0.300 | Amplifier | 1.1 | Characteristics Same as Type 7C7 (Special Non-Microphonic Tube). | | | | | | | | | |
| 1274 | T-9 | Duodiode | 6S | 6.3 | 0.600 | F-W Rect. | .... | Characteristics Same as Type 7Y4. | | | | | | | | | |
| 1275 | ST-16 | Duodiode | 4C | 5.0 | 1.750 | F-W Rect. | .... | Similar to Type 5Z3. | | | | | | | | | |
| 1276 | ST-16 | Triode | 4D | 4.5 | 1.140 | Power Amp. | 16.5 | Similar to Type 6A3. | | | | | | | | | |
| 1280 | Lock-in | Pentode | 8V | 12.6 | 0.150 | Amplifier | 1.1 | Characteristics Same as Type 14C7 (Special Non-Microphonic Tube). | | | | | | | | | |
| 1284 | Lock-in | Pentode | 8V | 12.6 | 0.150 | R-F Amp. | .... | 250 | 3 | 100 | 9.0 | 2.5 | 800000 | 200 | .... | .... |  |
| 1291 | Now Known as Type 3B7. | | | | | | | | | | | | | | | | |
| 1293 | Lock-in | Triode | 4AA | 1.4 | 0.110 | Oscillator | .... | 90 | 0 | .... | 5.2 | .... | .... | 1500 | 15 | .... | .... |
| 1294 | Now Known as Type 1R4 | | | | | | | 90 | 20 | .... | 13.25 | .... | .... | 120 Mc. Oscillator Rg = 10000 Ohms. | | | |
| 1299 | Now Known as Type 3D6. | | | | | | | | | | | | | | | | |
| 1612 | Metal | Heptode | 7T | 6.3 | 0.300 | Mixer Amp. | 1.65 | Characteristics Same as Type 6L7. | | | | | | | | | |
| 1614 | T-10 Sp. | Beam Pent. | 7S | 6.3 | 0.900 | P.P.AB1 Amp. | 21 | 360 | 22.5 | 270 | 88-132† | 15† | .... | .... | .... | 6600 | 26500 |
| | | | | | | | | 530 | 36 | 340 | 60-160† | 20† | .... | .... | .... | 7200 | 50000 |
| 1625 | ST-16 | Beam Pent. | 5AZ | 12.6 | 0.450 | P.P.AB1 Amp. P.P.AB2 Amp. | 25 | Characteristics Same as Type 807. | | | | | | | | | |
| 2050 2050A | ST-12 | Gas Tetrode | 6BS | 6.3 | 0.600 | Relay Tube | .... | 400 | 5.0 | 0 | 100 | .... | For Relay Operation Limit Time to 30 Seconds. 1 Amp. Peak Current, 8 Volts Tube Drop. | | | | |
| | | | | | | | | 220 | 4.0 | 0 | 75 | .... | .... | .... | .... | .... | .... |
| 5636 (3) | T-3 | Pentode | 8DC | 6.3 | 0.150 | Mixer | 1.1 | 100 | 150 [■] | 100 | 3.6 | .... | 320000 | 1280* | .... | .... | .... |
| 5639 (3) | T-3 | Beam Pent. | 8DL | 6.3 | 0.450 | Power Amp. | 4.0 | 150 | 100 [■] | 100 | 21 | 4 | 50000 | 9000 | .... | .... | 1000 |
| 5641 (3) | T-3 | Diode | 6CJ | 6.3 | 0.450 | H-W Rect. | .... | 117 A.C. Volts Per Plate, RMS, 48 Ma. D.C. Output. Condenser Input to Filter. 235 A.C. Volts Per Plate, RMS, 45 Ma. D.C. Output. Condenser Input to Filter. | | | | | | | | | |
| 5642 | T-3 | Diode | 5642 | 1.25 | 0.200 | H-W Rect. | .... | Pulse Type Rectifier for Television Service, 10000 Volts Peak Inverse. | | | | | | | | | |
| 5643 (3) | T-3 | Gas Tetrode | 8DD | 6.3 | 0.15 | Relay Tube | .... | 150 | 5 A.C. | 0 | 16 | .... | (Grid Bias Voltage 180°, Out of Phase with Anode Voltage.) | | | | |
| 5644 (3) | T-3 | Gas Diode | 4CN | .... | .... | Voltage Reg. | .... | Starting Voltage at 130, Operating Voltage 95, Operating Current 5 to 25 Ma. | | | | | | | | | |
| 5647 (3) | T-1 | Diode | 5647 | 6.3 | 0.150 | Detector | .... | 117 Volts, RMS Plate, 9 Ma. D.C. Output. | | | | | | | | | |
| 5651 5651WA (3) | T-5½ | Gas Diode | 5BO | .... | .... | Volt. Ref. | .... | Starting Voltage = 115 Volts Max. Operating Voltage = 92 Volts Max. Operating Current = 3.5 Ma. Max. | | | | | | | | | |
| 5654/6AK5W(3) 5654/6AK5W/6096 GB-5654(3) | T-5½ | Pentode | 7BD | 6.3 | 0.175 | VHF Amp. | 1.65 | 120 | 200 [■] | 120 | 7.5 | 2.5 | 340000 | 5000 | .... | .... | .... |
| 5670(3) GB-5670(3) 5670WA(3) | T-6½ | Duotriode | 8CJ | 6.3 | 0.350 | VHF Amp. | 1.35 | 150 | 240 [■] | | 8.2 | .... | 6370 | 5500 | 35 | .... | .... |
| 5686 | T-6½ | Beam Pent. | 9G | 6.3 | 0.350 | Power Amp. | 8.25 | 250 | 12.5 | 250 | 27 | 5.0 | .... | 3100 | .... | 9000 | 2700 |
| 5687 (3) GB-5687 (3) | T-6½ | Duotriode | 9H | 6.3 12.6 | 0.900 0.450 | Amplifier | 4.2 | 250 180 | 12.5 7.0 | .... | 12 23 | .... | 3000 2000 | 5400 8500 | 16 17 | .... | .... |



AVERAGE CHARACTERISTICS

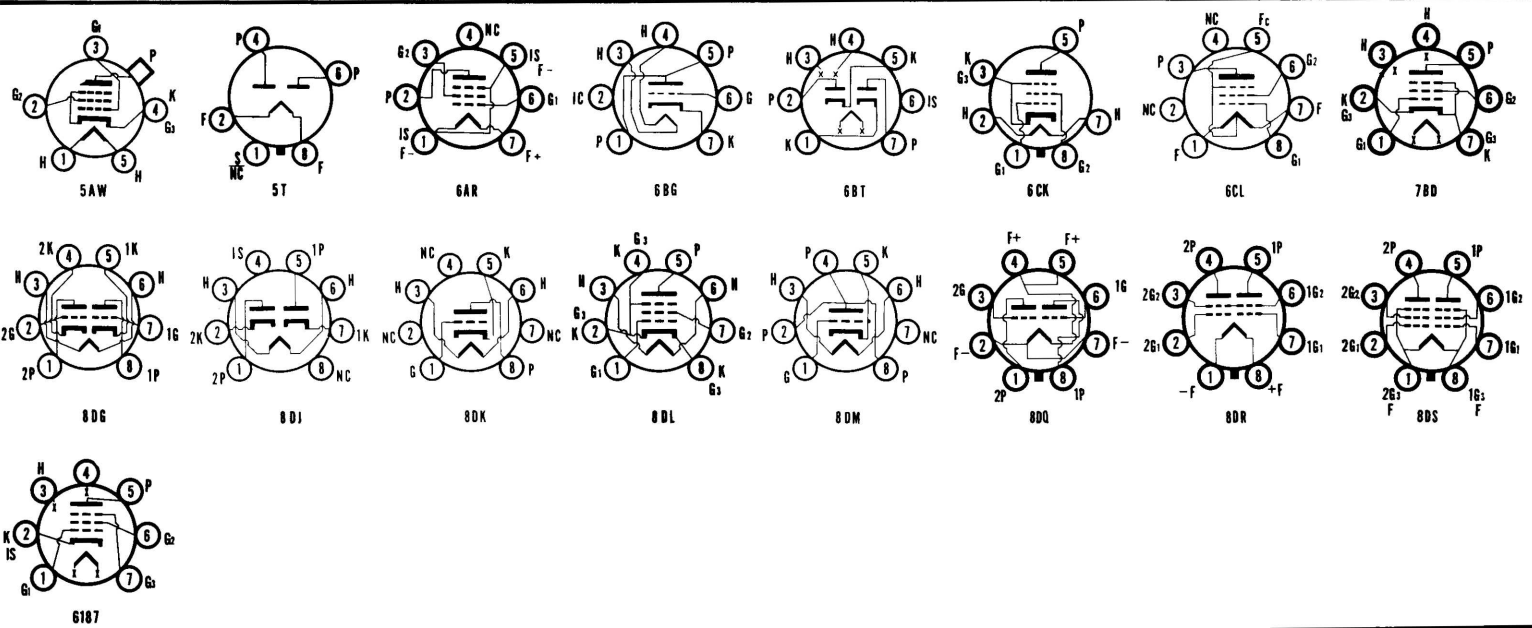
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--|---------------------------------|------------|--------------|--|-----------------|-------------------|--------------------------------|---|--|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 5691 | T-9 | Duotriode | 8BD | 6.3 | 0.600 | A-F Amp. | 1.0 | 250 | 2 | .... | 2.3 | .... | 44000 | 1600 | 70 | .... | .... |
| 5692 | T-9 | Duotriode | 8BD | 6.3 | 0.600 | A-F Amp. | 1.75 | 250 | 9 | .... | 6.5 | .... | 9100 | 2200 | 20 | .... | .... |
| 5693 | Metal | Pentode | 8N | 6.3 | 0.300 | A-F Amp. | 2.0 | 250 | 3 | 100 | 3.0 | 0.85 | .... | 1650 | .... | .... | .... |
| 5702 5702WA (3) 5702WB (3) | T-3 | Pentode | 5702 | 6.3 | 0.200 | VHF Amp. | .... | 120 | 200 [■] | 120 | 7.5 | 2.5 | 340000 | 5000 | .... | .... | .... |
| 5703 5703WA (3) 5703WB (3) | T-3 | Triode | 5703 | 6.3 | 0.200 | VHF Osc. | 3.3 | 120 | 220 [■] | | 9.0 | .... | .... | 5000 | 25 | .... | .... |
| 5704 (3) | T-2 | Diode | 5704 | 6.3 | 0.150 | VHF Det. | 3.3 | 150 Volts, RMS Plate, 9 Ma. D.C. Output Current. | | | | | | | | | |
| 5718 (3) | T-3 | Triode | 8DK | 6.3 | 0.150 | UHF Amp. | 3.3 | 100 | 150 [■] | | 8.5 | .... | 4650 | 5800 | 27 | .... | .... |
| | | | | | | | | 150 | 180 [■] | | 13.0 | .... | 4150 | 6500 | 27 | .... | .... |
| 5719 (3) | T-3 | Triode | 8DK | 6.3 | 0.150 | UHF Amp. | .055 | 150 | 680 [■] | | 1.85 | .... | 30500 | 2300 | 70 | .... | .... |
| 5722 (3) | T-5½ | Diode | 5CB | 4.9 [†] | 1.600 | Noise Diode | .... | 200 | For Noise Generator Service Ib 35 Ma. Max. | | | | | | | | |
| 5725 (3) | T-5½ | Pentode | 7CM | 6.3 | 0.175 | Mixer | 1.65 | 120 | 2 | 120 | 5.2 | 3.5 | 3200 | .... | .... | .... | .... |
| 5725/6AS6W (3) | | | | | | | | | | | | | | | | | |
| 5726/6AL5W (3) GB-5726 (3) 5726/6AL5W/6097 (3) | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | Rectifier | .... | 117 Volts, RMS Plate, 9 Ma. D.C. Output Current Per Plate. | | | | | | | | | |
| 5744 | T-3 | Triode | 5744 | 6.3 | 0.200 | A-F Amp. | .... | 250 | 500 [■] | | 4 | .... | .... | 4000 | 70 | .... | .... |
| 5749/6BA6W (3) GB-5749 | T-5½ | Pentode | 7BK | 6.3 | 0.300 | R-F Amp. | 3.3 | 100 | 68 [■] | 100 | 10.8 | 4.4 | 250000 | 4300 | .... | .... | .... |
| | | | | | | | | 250 | 68 [■] | 100 | 11.0 | 4.2 | 1.0 Meg. | 4400 | .... | .... | .... |
| 5750 (3) 5750/6BE6W (3) GB-5750 (3) | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Converter | 1.1 | Characteristics Same as Type 6BE6. | | | | | | | | | |
| 5751WA (3) 5751 (3) GB-5751 (3) | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.350 0.175 | A-F Amp. | 0.8 | Characteristics Same as Type 12AX7. | | | | | | | | | |
| 5783 | T-3 | Gas Diode | 5783 | .... | .... | Voltage Reg. | .... | Starting Voltage at 115 Volts. Operating Voltage 85. Operating Current 1.5 to 3.5 Ma. | | | | | | | | | |
| 5784 | T-3 | Pentode | 5784 | 6.3 | 0.200 | Amplifier | 1.87 | 120 | 2 | 120 | 5.2 | 3.5 | .... | 3200 | .... | .... | .... |
| 5785 | T2x3 | Diode | 5785 | 1.25 [†] | 0.015 | H-W Rect. | .... | 1235 Volts, RMS Plate, 100 μA D.C. Output Current. | | | | | | | | | |
| 5787 | T-3 | Gas Diode | 5783 | .... | .... | Voltage Reg. | .... | Starting Voltage at 135 Volts. Operating Voltage 100. Operating Current 5 to 25 Ma. | | | | | | | | | |
| 5814 (3) GB-5814A (3) 5814WA (3) | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.350/ 0.175 | Class A Amplifier | 3.0 | 100 | 0 | .... | 11.8 | .... | 6250 | 3100 | 19.5 | .... | .... |
| | | | | | | | | 250 | 8.5 | .... | 10.5 | .... | 7700 | 2200 | 17.0 | .... | .... |
| 5823 | T-5½ | Gas Triode | 4CK | .... | .... | Relay Tube | .... | Peak Cathode Ma. = 100 Max. D.C. Cathode Ma. = 25 Max. Starter Anode Volt Drop = 61 Volts. Anode Drop = 62 Volts. | | | | | | | | | |
| 5824 (3) | ST-14 | Beam Pent. | 7S | 25.0 | 0.300 | Power Amp. | 13.7 | 135 | 22 | 135 | 61 | 2.5 | 15000 | 5000 | .... | 1700 | 4300 |
| 5840 (3) | T-3 | Pentode | 8DL | 6.3 | 0.150 | R-F Amp. | 1.1 | 100 | 150 [■] | 100 | 7.5 | 2.4 | 260000 | 5000 | .... | .... | .... |
| 5842 (3) | T-6½ | Triode | 9V | 6.3 | 0.300 | UHF R-F Amplifier | 4.0 | 150 | 62 [■] | | 26 | .... | 1800 | 24000 | 43 | .... | .... |
| 5844 (3) GB-5844 (3) | T-5½ | Duotriode | 7BF | 6.3 | 0.300 | Computer | 1.0 | 100 | 470 [■] | | 4.8 | .... | 7550 | 3700 | 28 | .... | .... |
| 5845 | T-5½ | Duodiode | 5CA | 5.0 [†] | 0.435 | Control Diode | .... | 300max. | .... | .... | 2.0max. | .... | .... | .... | .... | .... | .... |
| 5847 (3) | T-6½ | Pentode | 9X | 6.3 | 0.300 | R-F Amp. | 3.3 | 150 | 110 [■] | 150 | 13 | 4.5 | .... | 12500 | .... | .... | .... |
| 5851 | T-3 | Pentode | 6CL | 1.25 [†] 2.50 [†] | 0.110 0.055 | R-F Amp. | 1.65 | 125 | 7.5 | 125 | 5.5 | 0.9 | 175000 | 1600 | .... | .... | .... |
| | | | | | | | | 180 | 7.0 | 135 | .... | .... | .... | .... | .... | .... | 650 |
| 5871 | T-9 | Beam Pent. | 7S | 6.3 | 0.450 | Power Amp. | 13.2 | Characteristics Same as Type 6V6GT. | | | | | | | | | |

- (1) See Frontal Section. (3) Has Special Mechanical and/or Life Characteristics. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 (2) Design Maximum Values. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor.
 † Maximum Signal. ‡ Filamentary Type. † Conversion Transconductance. ‡ Plate to Plate. † Cathode Resistor (ohms).



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| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ¹ | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | | |
|--------------------|---------------------------------|----------------------|--------------|----------|-------------|-------------------------------|--------------------------------|--|----------------------|--------------|-------------------|--------------------|--|--------------------------------------|----------------------|-----------------------------------|--------------------------|--------|-------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | | |
| 5879 | T-6½ | Pentode | 9AD | 6.3 | 0.150 | A-F Amp. | 1.37 | 250 | 3 | 100 | 1.8 | 0.4 | 2000000 | 1000 | 21 | ..... | ..... |  |  |
| 5881 | T-11 | Beam Pent. | 7S | 6.3 | 0.900 | Power Amp. | 25.3 | Characteristics Same as Type 6L6G. | | | | | | | | | | | |
| 5889 | T-3 | Pentode | 5889 | 1.25♦ | 7.5 Ma | Amplifier | ..... | 12 | 2.0 | ..... | .005 | .005 | 1.8 Meg. | (For Low Grid Current Applications.) | | | | | |
| 5896 (3) | T-3 | Duodiode | 8DJ | 6.3 | 0.300 | F-W Rect. | ..... | 150 Volts, RMS Per Plate, 18 Ma. D.C. Output Current. | | | | | | | | | | | |
| 5899 (3) | T-3 | Pentode | 8DL | 6.3 | 0.150 | R-F Amp. | 1.1 | 100 | 120 | 100 | 7.2 | 2.2 | 260000 | 4500 | ..... | ..... | ..... |  |  |
| 5902 (3) | T-3 | Pentode | 8DL | 6.3 | 0.450 | Power Amp. | 4.0 | 110 | 270 | 110 | 30 | 2.2 | 15000 | 4200 | ..... | ..... | 1000 | | |
| 5903 (3) | T-3 | Duodiode | 8DJ | 26.5 | 0.075 | UHF Det. | ..... | PIV = 460 Volts, PKIb = 60 Ma., Ib = 10 Ma. and EHK = 360 Volts. | | | | | | | | | | | |
| 5904 (3) | T-3 | Triode | 8DK | 26.5 | 0.045 | UHF Osc./ Amp. | ..... | 26.5 | 2.2 Meg ⁴ | ..... | 3.0 | ..... | 4000 | 5000 | 20 | ..... | ..... |  |  |
| 5905 (3) | T-3 | Pentode | 8DL | 26.5 | 0.045 | UHF Amp. | ..... | 26.5 | 2.2 Meg ⁴ | 26.5 | 2.1 | 0.75 | 150000 | 2850 | ..... | ..... | ..... |  |  |
| 5906 (3) | T-3 | Pentode | 8DL | 26.5 | 0.045 | UHF Amp. | 1.1 | 100 | 150 | 100 | 7.5 | 2.4 | 260000 | 5000 | ..... | ..... | ..... |  |  |
| 5907 (3) | T-3 | Pentode | 8DL | 26.5 | 0.045 | UHF Amp. | ..... | 26.5 | 2.2 Meg ⁴ | 26.5 | 2.7 | 1.1 | 100000 | 3000 | ..... | ..... | ..... |  |  |
| 5908 (3) | T-3 | Pentode | 8DC | 26.5 | 0.045 | UHF Amp. | ..... | 26.5 | 2.2 Meg ⁴ | 26.5 | 3.3 | 2.0 | 31000 | 2200 | ..... | ..... | ..... |  |  |
| 5910 (3) | T-5½ | Pentode | 6AR | 1.4♦ | 0.050 | R-F Amp. | ..... | 90 | 0 | 90 | 1.6 | 0.45 | 1500000 | 900 | ..... | ..... | ..... |  |  |
| 5915 (3) | T-5½ | Dual Control Heptode | 7CH | 6.3 | 0.300 | Computer | 1.0 | 150 | 0 | 75 | 5.8 | 9.0 | Grid No. 3 Voltage = 0 Rb = 20K Ohms | | | | | | |
| 5915A (3) | | | | | | | | 150 | 10.0 | 75 | 0 | 0 | Grid No. 3 Voltage = 0 | | | | | | |
| GB-5915A (3) | | | | | | | | 150 | 0 | 75 | 0 | 14.0 | Grid No. 3 Voltage = -10 | | | | | | |
| 5916 (3) | T-3 | Pentode | 8DC | 26.5 | 0.045 | Dual-Control Mixer | 1.1 | 100 | 150 | 100 | 5.3 | 3.6 | 110000 | 3200 | ..... | ..... | ..... |  |  |
| 5931 (3) | T-12 | Duodiode | 5T | 5.0♦ | 3.000 | F-W Rect. | ..... | Characteristics Same as Type 5U4G. | | | | | | | | | | | |
| 5932 (3) | T-12 | Beam Pent. | 7S | 6.3 | 0.900 | Power Amp. | 21 | Characteristics Same as Type 6L6G. | | | | | | | | | | | |
| 5933 (3) | T-12 | Beam Pent. | 5AW | 6.3 | 0.900 | Power Amp. | 25 | Characteristics Same as Type 807W. | | | | | | | | | | | |
| 5963 (3) | T-6½ | Duotriode | 9A | 6.3 | 0.300 | Computer | 2.5 | 67.5 | 0 | ..... | 8.5 | ..... | 6600 | 3200 | 21 | ..... | ..... |  |  |
| GB-5963 (3) | | | | 12.6 | 0.150 | | | 150 | 0 | ..... | 5.4 | ..... | (Rb = 20000 Ohms) | | | | | | |
| 5964 (3) | T-5½ | Duotriode | 7BF | 6.3 | 0.450 | Computer | 1.5 | 100 | 50 | ..... | 9.5 | ..... | 6500 | 6000 | 39 | ..... | ..... |  |  |
| GB-5964 (3) | | | | | | | | 150 | 0 | ..... | 5.0 | ..... | (Rb = 20000 Ohms) | | | | | | |
| 5965A | T-6½ | Duotriode | 9A | 6.3/12.6 | 0.450/0.225 | Computer | 2.4 | 150 | 220 | ..... | 8.5 | ..... | 7000 | 6700 | 47 | ..... | ..... |  |  |
| 5968 | T-3 | Duotriode | 8DQ | 1.25♦ | 0.120 | VHF Mixer | ..... | 45 | 0 | ..... | 0.7 | ..... | ..... | 1300 | 50 | ..... | ..... |  |  |
| 5969 | T-3 | Duotetrode | 8DR | 1.25♦ | 0.200 | VHF Amp. or VHF Osc. | 0.96 | 135 | 3.0 | 45 | 6.0 | 0.6 | ..... | 1700 | ..... | ..... | ..... |  |  |
| | | | | | | | | Class A Ratings | | | | | | | | | | | |
| 5970 | T-3 | Duo. Pentode | 8DS | 1.25♦ | 0.160 | VHF Amp. | ..... | 45 | 5 Meg. ⁴ | 45 | 3.0 | 0.9 | 170000 | 1850 | ..... | ..... | ..... |  |  |
| 5977 (3) | T-3 | Triode | 8DK | 6.3 | 0.150 | Amplifier | 3.3 | 100 | 270 | ..... | 10.0 | ..... | 3650 | 4500 | 16 | ..... | ..... |  |  |
| 5987 (3) | T-3 | Triode | 8DM | 6.3 | 0.450 | Amplifier | 4.0 | 100 | 18 | ..... | 9.0 | ..... | ..... | 1850 | 4.1 | ..... | ..... |  |  |
| 5998A | T-12 | Duotriode | 8BD | 6.3 | 2.400 | Passing Tube for V.R. Serv. | 15 | 110 | 105 | ..... | 100 | ..... | 350 | 15500 | 5.4 | ..... | ..... |  |  |
| 6000 | T-11 | Beam Pent. | 6CK | 26.5 | 0.280 | Class "C" Amp./Osc. | 25 | 400 | 60 | 200 | 125 | 16 | RG = 12000 Ohms, PK R-F = 75 V, IG1 = 5 Ma., Driving Power = 0.4 Watt, RG = 20K Ohms, PK. R-F = 75 V, IG1 = 3 Ma., Driving Pwr. = 0.23 Watts | | | | | 28 | |
| 6005 (3) | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.450 | S.T. Class A1 | 11 | 180 | 8.5 | 180 | 29. | 3.0 | 58000 | 3700 | ..... | 5500 | 2000 | | |
| GB-6005 (3) | | | | | | S.T. Class A1 | ..... | 250 | 12.5 | 250 | 45. | 4.5 | 52000 | 4100 | ..... | 5000 | 4500 | | |
| 6005/6AQ5W/6095(3) | | | | | | P.P. Class AB1 | | 250 | 15 | 250 | 70-79† | 5-13† | Current, Output for 2 Tubes | | | | | 10000† | 10000 |
| 6005/6AQ5W (3) | | | | | | | | | | | | | | | | | | | |
| 6021 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.300 | UHF Amp. | 1.1 | 100 | 150 | ..... | 6.5 | ..... | 6480 | 5400 | 35 | ..... | ..... |  |  |
| 6028 | T-5½ | Pentode | 7BD | 20 | 0.050 | Amplifier | 1.87 | 120 | 180 | 120 | 7.5 | 2.5 | 300000 | 5000 | ..... | ..... | ..... |  |  |
| GB-6080 | T-12 | Duotriode | 8BD | 6.3 | 2.500 | Passing Tube for V.R. Service | 13 | 135 | 250 | ..... | 200 | ..... | 280 | 7000 | 2 | ..... | ..... |  |  |
| 6080 | | | | | | | | | | | | | | | | | | | |
| 6082A | T-12 | Duo Power Triode | 8BD | 26.5 | 0.600 | Power Amp. | 13 | 135 | 250 | ..... | 125 | ..... | 280 | 7000 | 2 | ..... | ..... |  |  |



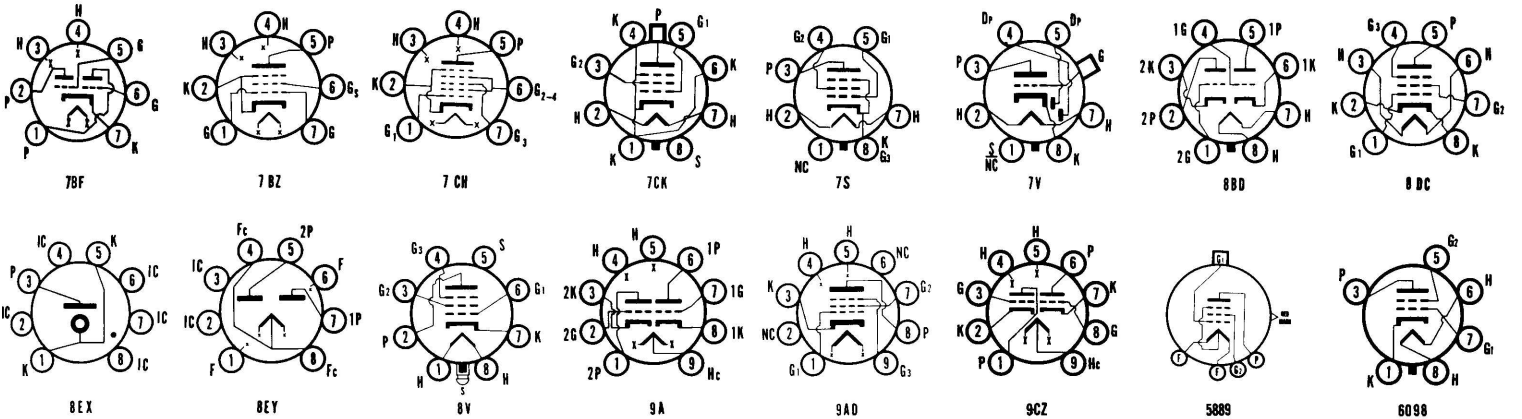
AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|--|---------------------------------|------------------|--------------|----------------|-----------------|--|--------------------------------|---|---------------------------------------|-------------------|-------------------------------|-----------------------------|--|--------------------------|-------------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6095 (3) | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.450 | Power Amp. | 13.2 | Characteristics Same as Type 6AQ5. | | | | | | | | | |
| 6096 (3) | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.450 | Power Amp. | 13.2 | Characteristics Same as Type 6AQ5. | | | | | | | | | |
| 6097 | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | F-W Rect. | .... | Characteristics Same as Type 5726/6AL5W. | | | | | | | | | |
| 6098 (3) | T-12 | Beam Tet. | 6098 | 6.3 | 1.200 | Oscilloscope Defl. Amp. | 21.0 | Characteristics Same as Type 6AR6. | | | | | | | | | |
| 6099 (3) | T-5½ | Duotriode | 7BF | 6.3 | 0.450 | VHF Osc. VHF Amp. | 1.6 | Characteristics Same as Type 6101 Except Plate Current Difference Between Units Shall Not Exceed 0.25 Ma. Initially or 1.0 Ma. After 500 Hours. | | | | | | | | | |
| 6100 (3) | T-5½ | Triode | 6BG | 6.3 | 0.150 | R-F Osc. R-F Amp. | 5.5 3.85 | Characteristics Same as Type 6C4. | | | | | | | | | |
| 6101 (3) GB-6101 | T-5½ | Duotriode | 7BF | 6.3 | 0.450 | VHF Osc./ Amp. | 1.6 | Characteristics Same as Type 6J6. | | | | | | | | | |
| 6110 (3) | T-3 | Duodiode | 8DJ | 6.3 | 0.150 | UHF Det. | .... | Peak Inverse Voltage = 460 Volts. Peak Anode Current = 26.4 Ma. Per Plate. | | | | | | | | | |
| 6111 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.300 | Med. Mu Amplifier | 1.1 | 100 | 220 [■] | | 8.5 | .... | 4200 | 4750 | 20 | .... | .... |
| 6112 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.300 | High Mu Amplifier | 0.55 | 100 150 | 1500 [■] 820 [■] | | 0.8 1.75 | .... | 38900 28000 | 1800 2500 | 70 70 | .... | .... |
| 6118 (3) | Metal | Duodiode Tri. | 7V | 6.3 | 0.300 | Det. Amp. | .... | 100 250 | 1.0 3.0 | .... | 0.8 1.0 | .... | 58000 58000 | 1200 1200 | 70 70 | .... | .... |
| 6135 (3) GB-6135 (3) | T-5½ | Triode | 6BG | 6.3 | 0.170 | VHF Osc./ Amp. | 3.8 | Characteristics Same as Type 6C4. | | | | | | | | | |
| 6136 (3) | T-5½ | Triode | 6BG | 6.3 | 0.175 | VHF Osc. | 3.5 | 250 | 8.5 | .... | 10.5 | .... | 7700 | 2200 | 17 | .... | .... |
| 6145 GB-6145 (3) | Lock-in | Pentode | 8V | 6.3 | 0.600 | Computer | 11 | 150 | 0 | 100 | 34 | 8.0 | 0.1 Meg. | 9700 | .... | .... | .... |
| 6146 | T-12 | Beam Pent. | 7CK | 6.3 | 1.250 | P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB2 Amp. | 20 | 600 500 600 | 45 44 44 | 180 175 165 | 26-200† 27-242† 22-207† | 1-23† 0.7-18† 0.6-17† | (Current, Output for 2 Tubes) (Current, Output for 2 Tubes) | | 7000† 4600† 6800† | 82000 83000 90000 | |
| 6147 | T-3 | Power Pent. | 6CL | 1.25♦ | 0.125 | VHF Power Amplifier | 1.5 | 125 | 7.5 | 125 | 5.5 | 0.9 | 175000 | 1600 | .... | .... | .... |
| 6186 (3) 6186 (3) 6186/6AG5WA(3) GB-6186 (3) | T-5½ | Pentode | 7BD | 6.3 | 0.300 | VHF Amp. | 2.5 | 250 | 200 [■] | 150 | 7 | 2 | .... | 5000 | .... | .... | .... |
| 6187 | T-5½ | Pentode | 6187 | 6.3 | 0.175 | VHF Amp. | 1.6 | 120 | 2.0 | 120 | 5.2 | 3.5 | .... | 3200 | .... | .... | .... |
| 6188 | T-9 | Duotriode | 8BD | 6.3 | 0.300 | D.C. Amp. | 1.1 | 250 | 2.0 | .... | 2.3 | .... | 44000 | 1600 | 70 | .... | .... |
| 6189 (3) 6189/12AU7WA(3) GB-6189 (3) | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.300 0.150 | Osc./Amp. | 3.0 | Characteristics Same as Type 12AU7. | | | | | | | | | |
| 6201 (3) GB-6201 (3) | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.300 0.150 | VHF Amp. | 2.5 | Characteristics Same as Type 12AT7. | | | | | | | | | |
| 6205 (3) | T-3 | Pentode | 8DC | 6.3 | 0.150 | UHF Amp. | 1.1 | 100 | 150 [■] | 100 | 7.5 | 2.4 | 0.26 Meg. | 5000 | .... | .... | .... |
| 6206 (3) | T-3 | Pentode | 8DC | 6.3 | 0.150 | UHF Amp. | 1.1 | 100 | 120 [■] | 100 | 7.5 | 2.0 | 0.26 Meg. | 4500 | .... | .... | .... |
| 6211A | T-6½ | Duotriode | 9A | 12.6/ 6.3 | 0.150/ 0.300 | Computer | 1.3 | 100 | 2.0 | .... | 6.6 | .... | 6500 | 4700 | 31 | .... | .... |
| 6308 (3) | T-3 | Gas Diode | 8EX | .... | .... | Voltage Reg. | .... | Starting Voltage at 115 Volts. Operating Voltage at 87 Volts and Current at 3.5 Ma. Max. | | | | | | | | | |
| 6336A | TT-16 | Duo Power Triode | 8BD | 6.3 | 5.000 | Passing Tube for V.R. Serv. | 30 | 190 200 [■] | | 182 | .... | 300 | 13500 | 2.7 | .... | .... | .... |
| 6350 (3) GB-6350 (3) | T-6½ | Duotriode | 9CZ | 6.3 12.6 | 0.600 0.300 | Computer | 3.85 | 150 | 5.0 | .... | 11.0 | .... | 3900 | 4600 | 18 | .... | .... |
| 6352 (3) | T-3 | Duodiode | 8EY | 3.0♦ Series | 0.360 Series | Regulator | .... | Temperature Limited Diode. Max. Ef. = 4.0. Max. Eb. = 275. Max. Ib. = 1.1 Ma. | | | | | | | | | |

(1) See Frontal Section.
(2) Design Maximum Values.
† Maximum Signal.

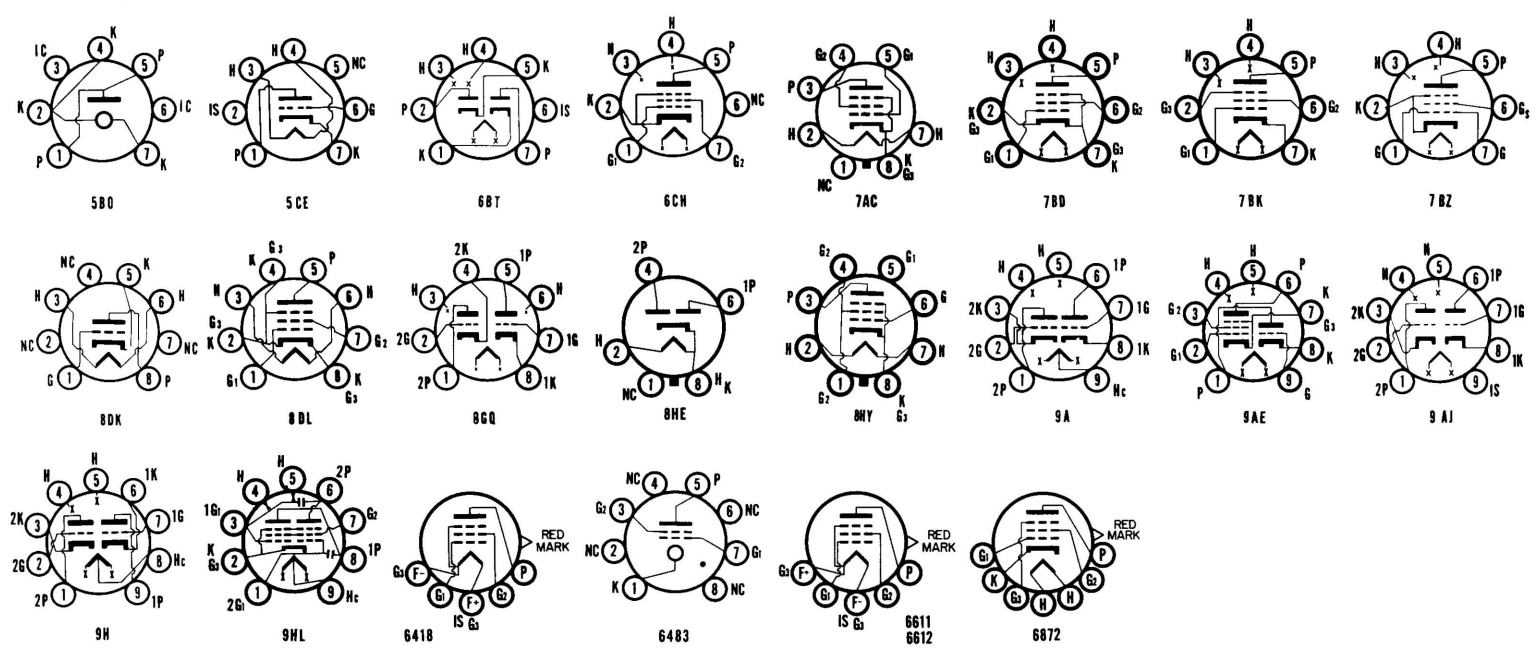
(3) Has Special Mechanical and/or Life Characteristics.
(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.
♦ Filamentary Type.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
‡ Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------------|---------------------------------|------------------|--------------|--------------|-----------------|-----------------------------|--------------------------------|---|--|--------------|----------------------|--------------------|--|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 6354 | T-5½ | Diode | 7DU | .... | .... | Voltage Reg. | .... | Starting Voltage at 180. Operating Volts 150. Operating Current 5 Ma. Min., 30 Ma. Max. | | | | | | | | | |
| 6394A | TT-16 | Duo Power Triode | 8BD | 26.5 | 1.300 | Passing Tube for V.R. Serv. | 30 | Characteristics Same as Type 6336A. | | | | | | | | | |
| 6418 | T-2 | Pentode | 6418 | 1.25♦ | 0.010 | Power Amp. | .... | 22.5 | 1.2 | 22.5 | .24 | .60 | 420000 | 300 | .... | 100000 | 2200 |
| 6463 | T-6½ | Duotriode | 9CZ | 6.3 12.6 | 0.600 0.300 | Computer | 4.4 | 200 250 | 11.0 620♠ | .... | 1.0 14.5 | .... | 3850 | 5200 | 20 | .... | .... |
| 6483 | T-3 | Gas Tetrode | 6483 | .... | .... | Switching | .... | 450 | Trigger Grid Voltage = 0 Volts. Trigger Pulse Voltage = 300 Volts. Keep Alive Current = 45 µa. | | | | | | | | |
| 6486A | T-6½ | Pentode | 9DV | 6.3 | 0.250 | Dual Control Pentode | 2.0 | 120 | 2 | 120 | 3.5 | 3.3 | .... | 3250 | .... | .... | .... |
| 6516 | T-5½ | Beam Pent. | 6CH | 6.3 | 0.200 | VHF/AF Power Amp. | 5.2 | 250 | 13.5 | 250 | 16.0 | 2.25 | 150000 | 2550 | .... | 16000 | 1400 |
| 6520 | T-16 | Duo Power Triode | 8BD | 6.3 | 2.500 | Passing Tube for V.R. Serv. | 15.4 | Characteristics Same as Type 6AS7G. | | | | | | | | | |
| 6528 | ST-16 | Duo Power Triode | 8BD | 6.3 | 5.000 | Passing Tube for V.R. Serv. | 30 | 100 | 4 | .... | 185 | .... | 245 | 37000 | 9 | .... | .... |
| 6550 | ST-16 | Beam Pent. | 7AC | 6.3 | 1.800 | S.T. A1 Amp. P.P.AB1 Amp. | 42.0 | 400 600 | 23 32.5 | 270 300 | 170-225† 100-270† | 9-35† 5-33† | 15000 (Current, Output for 2 Tubes) | 11000 | .... | 3500 5000† | 60000 100000 |
| 6582A | T-6½ | Pentode | 9EJ | 6.3 | 0.250 | R-F Pent. | 2.0 | 120 | 2 | 120 | 7.5 | 2.5 | .5 Meg. | 4500 | .... | .... | .... |
| 6611 | T-2x3 | Pentode | 6611 | 1.25♦ | 0.020 | VHF Amp. | 0.1 | 30 45 | 5 Meg. ⁴ 5 Meg. ⁴ | 30 45 | 1.0 1.0 | 0.35 0.35 | 400000 400000 | 1000 1000 | .... | .... | .... |
| 6612 | T-2x3 | Pentode | 6612 | 1.25♦ | 0.080 | VHF Amp. | 0.2 | 30 45 | 2 Meg. ⁴ 2 Meg. ⁴ | 30 45 | 3.0 3.0 | 1.0 1.0 | 180000 180000 | 3000 3000 | .... | .... | .... |
| 6626 | T-5½ | Gas Diode | 5B0 | .... | .... | Voltage Reg. | .... | Starting Voltage = 165. Operating Voltage = 148. Operating Current = 5 to 30 Ma. | | | | | | | | | |
| 6627 | T-5½ | Gas Diode | 5B0 | .... | .... | Voltage Reg. | .... | Starting Voltage = 130. Operating Voltage = 108. Operating Current = 5 to 30 Ma. | | | | | | | | | |
| 6660/6BA6 | T-5½ | Pentode | 7BK | 6.3 | 0.300 | R-F/I-F Amp. | 3.3 | 100 250 | 68♠ 68♠ | 100 100 | 10.8 11 | 4.4 4.2 | 250000 1 Meg. | 4300 4200 | .... | .... | .... |
| 6661/6BH6 | T-5½ | Pentode | 7CM | 6.3 | 0.150 | R-F/I-F Amp. | 3.3 | 100 250 | 200♠ 95♠ | 100 100 | 3.6 7.4 | 1.4 2.9 | 700000 1.4 Meg. | 3400 4600 | .... | .... | .... |
| 6662/6BJ6 | T-5½ | Pentode | 7CM | 6.3 | 0.150 | R-F/I-F Amp. | 3.3 | 100 250 | 80♠ 80♠ | 100 100 | 9 9.2 | 3.5 3.3 | 250000 1.3 Meg. | 3650 3600 | .... | .... | .... |
| 6663/6AL5 | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | Detector | .... | A.C. Voltage Per Plate = 117 Volts. D.C. Output Current = 9.0 Ma. | | | | | | | | | |
| 6664 | T-5½ | Triode | 5CE | 6.3 | 0.150 | VHF Amp./Osc. | 2.9 | Characteristics Same as Type 6AB4. | | | | | | | | | |
| 6669/6AQ5 | T-5½ | Beam Pent. | 7BZ | 6.3 | 0.450 | A-F Pwr. Amp. | 12 | 250 | 12.5 | 250 | 45 | 4.5 | 52000 | 4100 | .... | 5000 | 4500 |
| 6676 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.3 | Characteristics Same as Type 6CB6. | | | | | | | | | |
| 6677/6CL6 | T-6½ | Beam Pent. | 9BV | 6.3 | 0.650 | R-F Osc./Amp. | 8.5 | 250 | 3.0 | 150 | 30 | 7 | 150000 | 11000 | .... | 7500 | 2800 |
| 6678/6U8 | T-6½ | Tri. Pentode | 9AE | 6.3 | 0.450 | VHF Osc./Amp. | 3.0 | 150 250 | 56♠ 68♠ | 110 | 18 10 | 3.5 | 50000 40000 | 8500 5200 | 40 | .... | .... |
| 6679/12AT7 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | VHF Osc./Amp. | 2.8 | 100 250 | 270♠ 270♠ | .... .... | 3.7 10 | .... .... | 15000 10900 | 4000 5500 | 60 60 | .... | .... |
| 6680/12AU7 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | Gen. Purpose | 3.0 | 100 250 | 0 8.5 | .... .... | 11.8 10.5 | .... .... | 6500 7700 | 3100 2200 | 20 17 | .... | .... |
| 6681/12AX7 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | A-F Amp. | 1.1 | 100 250 | 1.0 2.0 | .... .... | 0.5 1.2 | .... .... | 80000 62500 | 1250 1600 | 100 100 | .... | .... |
| 6690 (3) | T-3 | Duotriode | 8GQ | 6.3 | 0.300 | Video Amp. | 1.1 | 100 | 100♠ | .... | 8.0 | .... | .... | 4800 | 35 | .... | .... |
| 6788 (3) | T-3 | Pentode | 8DL | 6.3 | 0.175 | Audio Amp. | 0.5 | 100 | 1500♠ | 100 | 0.7 | 0.1 | 1.2 Meg. | 1100 | .... | .... | .... |
| GB-6814 (3) | T-3 | Triode | 8DK | 6.3 | 0.150 | Computer | 2.2 | 100 | 0 | .... | 10 | .... | 4800 | 6000 | 29 | .... | .... |
| 6832 | T-3 | Duotriode | 8DG | 6.3 | 0.400 | D.C. Amp. | 0.1 | 100 | 3000♠ | .... | 0.8 | .... | .... | 1050 | .... | .... | .... |
| 6840 | T-6½ | Duotriode | 9CZ | 12.6 6.3 | 0.400 0.800 | Computer | 4.0 | 250 | 620♠ | .... | 14 | .... | 3400 | 7100 | 20 | .... | .... |
| 6851 | T-6½ | Duotriode | 9A | 6.3 | 0.250 | Amplifier | 1.0 | 250 | 3100♠ | .... | 1.0 | .... | 60000 | 1200 | 70 | .... | .... |

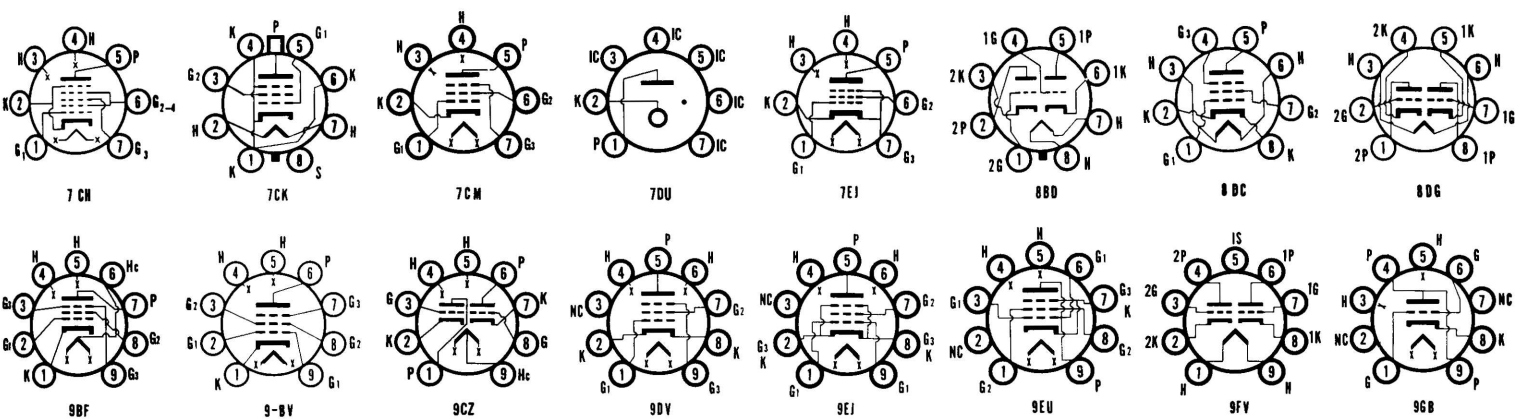


AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transcon-ductance Micros. | Ampli-fication Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|---------------------|---------------------------------|--------------|--------------|-------------|----------------|--|--------------------------------|--|-------------------------------------|--|---|--|--|---------------------------|---|--|--|------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 6853 (3) | T-9 | Diode | 8HE | 5.0 | 1.700 | F-W Rect. | .... | 350 Vac Per Plate RMS | 500 Vac Per Plate RMS | 125 Ma. Output Current | 125 Ma. Output Current | Condenser Input to Filter. | | | | | | |
| 6854 | T-6½ | Duotriode | 9FV | 6.3 | 0.500 | Amplifier | 1.65 | 150 | 240 | .... | 8.2 | .... | 6500 | 5225 | 35 | .... | .... |  |
| 6870 | T-6½ | Beam Pent. | 9BF | 6.3 12.6 | 0.600 0.300 | VHF Power Amplifier | 6.9 | 250 | 120 | 250 | 25.0 | 3.5 | 230 | 8500 | .... | .... | .... |  |
| 6872 | T-3 | Pentode | 6872 | 6.3 | 0.200 | VHF Amp. | 1.1 | 120 | 200 | 120 | 7.75 | 2.7 | 340000 | .... | .... | 4100 | .... |  |
| 6877 | T-6½ | Power Triode | 9GB | 6.3 | 0.800 | Power Amp. | .... | 150 | 12 | .... | 75 | .... | 2000 | 6500 | 3.75 | .... | 12000 | |
| 6883 (3) | T-12 | Beam Pent. | 7CK | 12.6 | 0.625 | Power Amp. | 20 | Characteristics Same as Type 6146. | | | | | | | | | | |
| 6893 | T-9 | Beam Pent. | 7CK | 12.6 | 0.400 | Power Amp. | 10 | Characteristics Same as Type 2E26. | | | | | | | | | | |
| 6900 | T-6½ | Duotriode | 9H | 6.3 | 1.000 | Pulse Amp. | 4.25 | 120 | 2 | .... | 36 | .... | 1700 | 11500 | 18.5 | .... | .... |  |
| 6919 | T-5½ | Duodiode | 6BT | 6.3 | 0.200 | F-W Rect. Computer | .... | Maximum Inverse Peak Plate Voltage = 300 Volts. Maximum Peak Plate Current = 30 Ma. Maximum D.C. Output Current = 10 Ma. (Design Max. Values.) | | | | | | | | | | |
| 6922 | T-6½ | Duotriode | 9AJ | 6.3 | 0.300 | VHF Amp. | 1.65 | 90 | 120 | .... | 12 | .... | 2800 | 11500 | 33 | .... | .... |  |
| 6939 | T-6½ | Duotetrode | 9HL | 6.3 12.6 | 0.600 0.300 | P.P.A1 Amp. P.P.A1 Amp. | 3.0 | 150 200 | 3.5 3.5 | 150 150 | 27-31.6 28-31.6 | 3.6-12.2 6-15.4 | .... | 7000 7500 | .... | 10560 17400 | 1750 2660 | |
| 6943 (3) | T-3 | Pentode | 8DC | 6.3 | 0.175 | R-F Amp. | 1.0 | 100 | 150 | 100 | 8 | 2.3 | 300000 | 3600 | .... | .... | .... |  |
| 6944 (3) | T-3 | Pentode | 8DC | 6.3 | 0.175 | R-F Amp. | 1.0 | 100 | 150 | 100 | 7 | 2.1 | 280000 | 3200 | .... | .... | .... |  |
| 6945 (3) | T-3 | Beam Pent. | 8DL | 6.3 | 0.350 | Power Amp. | 3.0 | 100 | 270 | 100 | 25 | 1.5 | 20000 | 3500 | .... | 3000 | 800 | |
| 6946 (3) | T-3 | Triode | 8DK | 6.3 | 0.175 | Amplifier | 1.5 | 100 | 270 | .... | 9.0 | .... | .... | 3800 | 16.5 | .... | .... |  |
| 6947 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.350 | Amplifier | 0.75 | 150 | 270 | .... | 6.5 | .... | .... | 4000 | 35 | .... | .... |  |
| 6948 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.350 | Amplifier | 0.50 | 100 | 1500 | .... | 0.8 | .... | .... | 1650 | 70 | .... | .... |  |
| 6954 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | Dual-Control Computer | 3.3 | 150 | 1.0 | 150 | 5.8 | 6.6 | 50000 | 2050 | Grid No. 3 = -3.0 Volts. | .... | .... |  |
| 6955 | T-6½ | Duotriode | 9A | 6.3 12.6 | 0.350 0.175 | Amplifier | 3.0 | 100 250 | 0 8.5 | .... | 13.0 11.5 | .... | 5800 7000 | 3500 2350 | 21.3 16.5 | .... | .... |  |
| 6968 | T-5½ | Pentode | 7BD | 6.3 | 0.175 | VHF Amp. | 1.81 | Characteristics Same as Type 6AK5. | | | | | | | | | | |
| 6973 | T-6½ | Beam Pent. | 9EU | 6.3* | 0.450 | S.T. A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 13.2 | 250 300 350 | 15 230 22 | 250 +300 280 | 46 80-96† 58-106† | 3.5 6-14† 3.5-14† | 73000 | 4800 | | | 5500 7500 | 15000† 20000† |
| 7001 | T-5½ | Beam Tetrode | 7EJ | 6.3 | 0.450 | Power Amp. | 5.5 | 120 | 250 | 120 | 35 | 4 | .... | 4800 | .... | .... | .... |  |
| 7025 7025A | T-6½ | Duotriode | 9A | 12.6 6.3 | 0.150 0.300 | Audio Amp. | 1.1 | Characteristics Same as Type 12AX7, except Controlled for Noise and Hum. | | | | | | | | | | |
| 7027 7027A | T-12 | Beam Pent. | 8HY | 6.3 | 0.900 | P.P.AB1 Amp. | 27.5 | 330 400 450 400 380 410 | 24 25 30 200 180 220 | 330 300 350 300 380 410 | 122-184† 102-152† 95-194† 112-128† 138-170† 134-155† | 5.6-18.5† 6-17† 3.4-19.2† 7-16† 5.6-20† (Cathode Current) Ultra-Linear Circuit. | .... | .... | .... | 4500† 6600† 6000† 6600† 4500† 8000† | 31500 34000 50000 32000 36000 24000 | |
| 7032 | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Computer | 1.1 | 150 150 150 | G1+3=0 G1+3=0 6.0 | 75 75 75 | 3.5 3.5 <0.1 | 6.0 6.0 <0.3 | G3+1=470K G3+1=470K G3+1=470K | 1400 650 | G1 = Control Grid G3 = Control Grid G3 = 0 Volts G3 = -6 Volts | .... | .... |  |
| 7036 | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Dual Control Computer | 0.9 | Characteristics Same as Type 5915A. | | | | | | | | | | |
| 7044 GB-7044 (3) | T-6½ | Duotriode | 9H | 6.3 12.6 | 0.900 0.450 | Computer | 4.5 | 120 | 2.0 | .... | 36 | .... | 1750 | 12000 | 21 | .... | .... |  |
| 7054 | T-6½ | Power Pent. | 9BF | 13.5 | 0.275 | S.T.A1 Amp. Class "C" Amplifier | 5.0 | 250 300 | 120 12 | 150 175 | 19 26 | 3.5 5.5 | 100000 Peak R-F (Ec1)=16 Volts, Driving Power = 15 MW. | 11500 | .... | 4000 | .... |  |

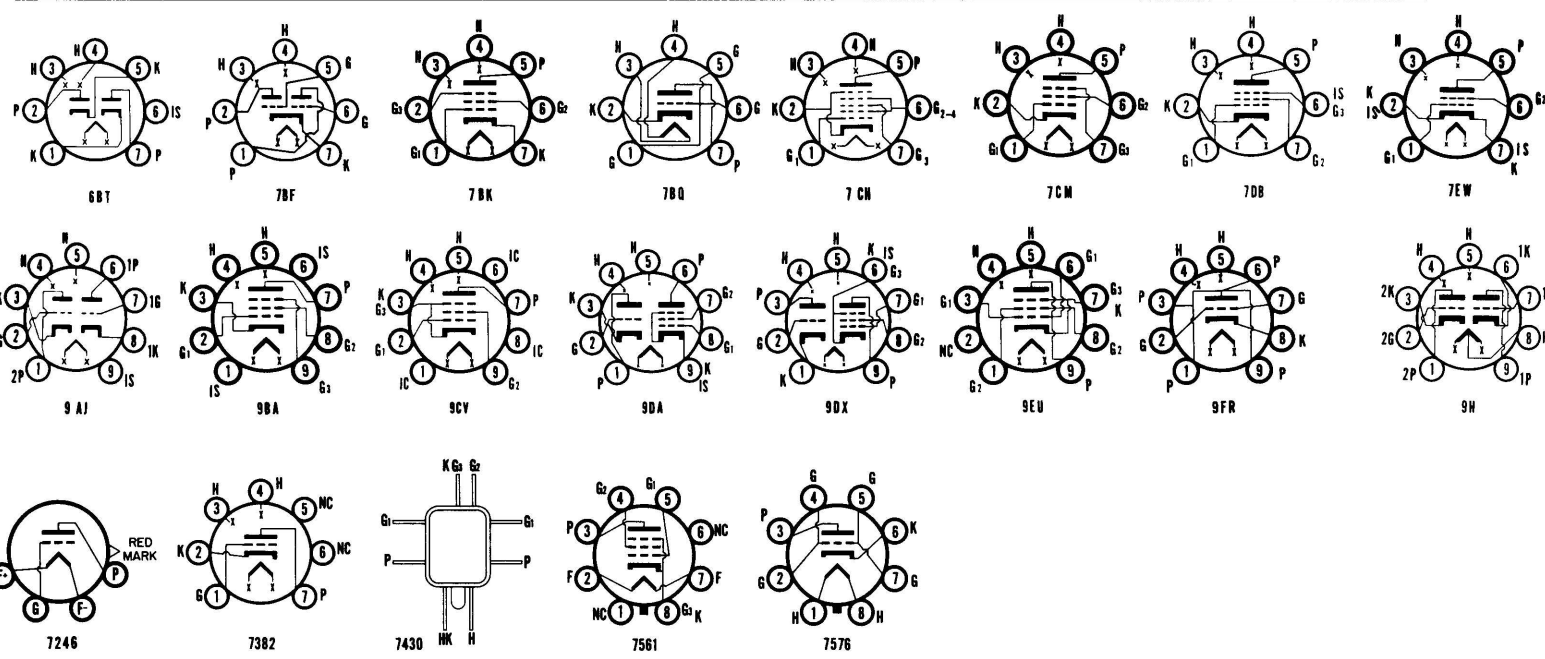
(1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) ‡ Plate to Plate. †† Cathode Resistor (ohms).

♦ Filamentary Type. ††† Conversion Transconductance.



SYLVANIA TUBES

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|------------------|---------------------------------|------------------|--------------|---------|-------|--|--------------------------------|-------------|---------------------|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 7055 | T-5½ | Duodiode | 6BT | 13.5 | 0.155 | Detector | 2.0 | 200 | 180 | 150 | 9.5 | 2.8 | 600000 | 6200 | ..... | ..... | ..... |
| 7056 | T-5½ | Pentode | 7CM | 13.5 | 0.150 | VHF Amp. | 2.2 | 150 | 220 | ..... | 10 | ..... | 5300 | 6800 | 36 | ..... | ..... |
| 7057 | T-6½ | Duotriode | 9AJ | 13.5 | 0.180 | VHF Amp. | 1.0 | 250 | 2 | ..... | 1.25 | ..... | 61000 | 1650 | 100 | ..... | ..... |
| 7058 | T-6½ | Duotriode | 9A | 13.5 | 0.155 | A-F Amp. | 2.5 | 150 | 56 | ..... | 18 | ..... | 4700 | 8500 | 40 | ..... | ..... |
| 7059 | T-6½ | Tri. Pentode | 9AE | 13.5 | 0.195 | VHF Osc. VHF Amp. | 2.8 | 250 | 68 | 110 | 10 | 3.5 | 400000 | 5200 | ..... | ..... | ..... |
| 7060 | T-6½ | Tri. Pentode | 9DX | 13.5 | 0.280 | VHF Osc. VHF Amp. | 2.5 | 150 | 150 | ..... | 9 | ..... | 8200 | 4900 | 40 | ..... | ..... |
| 7061 | T-6½ | Beam Pent. | 9EU | 13.5 | 0.210 | S.T.A1 Amp. | 3.0 | 200 | 82 | 125 | 15 | 3.4 | 150000 | 7000 | ..... | ..... | ..... |
| 7077 | Ceramic and Metal | Triode | 7077 | 6.3 | 0.240 | UHF R-F Amplifier | 9.0 | 200 | 10 | 200 | 35.5 | 9 | 60000 | 4200 | ..... | 5000 | 3000 |
| 7105 | T-12 | Duo Power Triode | 8BD | 12.6 | 1.250 | Passing Tube for V.R. Serv. | 1.0 | 250 | 82 | ..... | 6.4 | ..... | 8900 | 9000 | 80 | ..... | ..... |
| 7119 | T-6½ | Duotriode | 9H | 6.3 | 0.640 | Computer | 13.2 | 150 | 14 | ..... | 0.2 | ..... | ..... | ..... | ..... | ..... | ..... |
| 7137 GB-7137 (3) | T-5½ | Triode | 7BQ | 6.3 | 0.225 | VHF Amp. | 4.5 | 120 | 2.0 | ..... | 36 | ..... | ..... | 15000 | 24 | ..... | ..... |
| 7150 | Spec. Base T-9 | Tetrode | 9JH | 6.3 | 0.450 | VHF Amp. | 2.25 | 150 | 100 | ..... | 13.5 | ..... | ..... | 8500 | 40 | ..... | ..... |
| 7167 | T-5½ | Tetrode | 7EW | 13.5 | 0.090 | VHF Amp. | 4.0 | 135 | G1 = +8V | 135 | 27.5 | 8.5 | 30000 | 35800 | ..... | ..... | ..... |
| 7189 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | S.T.A1 Amp. P.P.AB1 Amp. P.P.AB2 Amp. | 2.0 | 250 | 80 | 10 | 1.4 | ..... | 125000 | 8000 | ..... | ..... | ..... |
| 7199 | T-6½ | Tri. Pentode | 9JT | 6.3 | 0.450 | A-F Tri. Amp. A-F Pent. Amplifier | 13.2 | 250 | 7.3 | 250 | 48 | 5.5 | 40000 | 11300 | 19.5 | (G1 to G2) | 24000 16500 |
| 7212 | T-12 | Beam Pent. | 8EC | 6.3 | 1.250 | P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB2 Amp. | 2.0 | 600 | 45 | 180 | 26-200† | 1-23† | ..... | ..... | ..... | 7000 | 82000 |
| 7227 | T-6½ | Pentode | 9BA | 27.5 | 0.175 | Power Amp. | 2.2 | 27.5 | 2.5 | 27.5 | 11 | 1.1 | 8000 | 5500 | 4 | ..... | 70 |
| 7233 | T-6½ | Triode | 9FR | 6.3 | 1.250 | Passing Tube for V.R. Serv. | 7.5 | 50 | 22 | ..... | 120 | ..... | 230 | 17500 | 4 | ..... | ..... |
| 7236 | T-12 | Duotriode | 8BD | 6.3 | 2.400 | Passing Tube for V.R. Serv. | 15 | 120 | 14 | ..... | 100 | ..... | ..... | 12500 | 4.8 | ..... | ..... |
| 7239 | T-6½ | Beam Pent. | 9KH | 6.3 | 0.300 | Pulse Amp. and Shunt Reg. | 4.0 | 300 | 5.0 | 100 | 10.5 | 2.6 | 300000 | 4200 | ..... | ..... | ..... |
| 7241 | TT-18 | Triode | 7241 | 6.3 | 7.500 | Passing Tube for V.R. Serv. | 100 | 190 | 200 | ..... | 550 | ..... | 67 | 40000 | 2.7 | ..... | ..... |
| 7242 | TT-18 | Triode | 7241 | 6.3 | 7.500 | Passing Tube for V.R. Serv. | 100 | 100 | 4 | ..... | 555 | ..... | 82 | 110000 | 9.0 | ..... | ..... |
| 7244 7244A | T-5½ | Duotriode | 7BF | 6.3 | 0.450 | Amplifier | 1.1 | 100 | 50 | ..... | 9.0 | ..... | 6300 | 6000 | 38 | ..... | ..... |
| 7245 | T-5½ | Triode | 7BQ | 6.3 | 0.400 | VHF Amp. | 2.25 | 150 | 100 | ..... | 13.5 | ..... | 4500 | 11000 | 50 | ..... | ..... |
| 7246 | T-2x3 | Triode | 7246 | 1.25 | 0.150 | VHF Amp./Osc./Det. | 0.7 | 105 | 2.5 | ..... | 4.5 | ..... | ..... | 2700 | 22 | ..... | ..... |
| 7258 | T-6½ | Tri. Pentode | 9DA | 13.5 | 0.210 | Gen. Amp. VHF Amp. | 2.8 | 150 | 3 | ..... | 15 | ..... | 4700 | 4500 | 21 | ..... | ..... |
| 7316 | T-6½ | Duotriode | 9A | 6.3 | 0.300 | Computer | 2.3 | 125 | 56 | 125 | 12 | 3.8 | 170000 | 7800 | ..... | ..... | ..... |
| 7318 | T-6½ | Duotriode | 9A | 6.3 | 0.350 | Pulse Amp. | 2.7 | 250 | 8.5 | ..... | 10.5 | ..... | 7700 | 2200 | 17 | ..... | ..... |
| | | | | 12.6 | 0.150 | | 1.35 | 100 | 0 | ..... | 13 | ..... | 6250 | 3100 | 19.5 | ..... | ..... |
| | | | | 12.6 | 0.175 | | | 250 | 8.5 | ..... | 11.5 | ..... | 5800 | 3500 | 21.3 | ..... | ..... |
| | | | | | | | | | | | | | 7000 | 2350 | 16.5 | ..... | ..... |



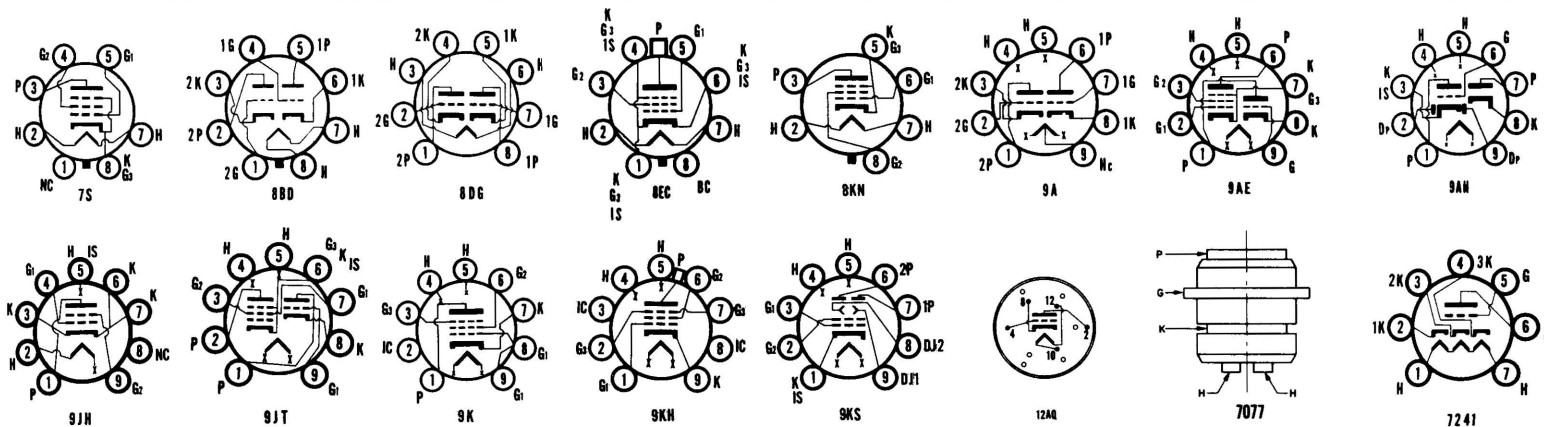
AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|---------------------|---------------------------------|-----------------|--------------|--------------|-----------------|---|--------------------------------|--|---------------------|--|--------------------------------|---------------------------------|-------------------------|--------------------------|----------------------|-----------------------------------|--|--|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 7320 | T-6½ | Beam Pent. | 9CV | 6.3 | 0.760 | Power Amp. | 12 | Characteristics Same as Type 6BQ5. | | | | | | | | | | |
| 7327 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.300 | Pulse Amp. Blocking Osc. | 0.95 | 150 | 25 | Pulse Applied to Grid = 40 Volts at Tp = 10 μsec., Prr. = 1000 Pps., Tr. = 0.2 μsec. Max., Tf. = 0.2 μsec. Max., PEAK Plate Current = 400 Ma. Min. | | | | | | | | |
| 7355 | T-9 | Beam Pent. | 8KN | 6.3 | 0.800 | S.T.A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 18 | 250 300 400 | 15 21 34 | 225 250 300 | 62-74† 100-185† 56-175† | 3.2-16.5† 5.5-24† 3.5-24† | 42000 | 7600 ..... ..... | ..... | 2500 4000† 5000† | 9000 28500 40000 | |
| 7358 | T-12 | Pentode | 8EC | 6.3 | 1.250 | Pulse Mod. | 10 | 200 3000 | 175 | 200 300 | 100 15 | 4 | ..... | 7000 | ..... | 4.2 (G2 to G1) | IC1 = 2.5 Ma., RL = 100 Watts. 1500 Ohm-Non Ind. Res. | |
| 7360 | T-6½ | Beam Defl. Tube | 9KS | 6.3 | 0.350 | Balanced Mod. Dble. Sideband Balanced Mixer Single Sideband | 1.5 1.5 | 150 25 Volts = Defl. Electrode Voltage, PK to PK R-F Grid No. 1 Volts = 10 Volts, Push-Pull Double Sideband Output Voltage = 4 Volts. | 1200■ 150 | 175 175 | 1.5 1.5 | 0.75 0.75 | ..... | ..... | ..... | 5000† | ..... |  |
| 7370 | T-6½ | Duotriode | 9H | 20/ 40 | 0.260/ 0.130 | Computer | 4.75 | 120 250 | 2.0 12.5 | ..... ..... | 36 12 | ..... | 1560 3000 | 11500 5400 | 18 16 | ..... | ..... |  |
| 7382 | T-5½ | Triode | 7382 | 6.3 | 0.300 | A-F Amp. | 0.55 | Characteristics Same as Type 12AX7, except Controlled for Noise and Hum. | | | | | | | | | | |
| 7408 | T-9 | Beam Pent. | 7S | 6.3 | 0.450 | A-F Pwr. Amp. | 14 | Characteristics Same as Type 6V6GT. | | | | | | | | | | |
| 7430 | Special | Pentode | 7430 | 6.3 | 0.200 | R-F Amp. | 1.87 | 120 180 | 2.0 2.0 | 120 120 | 7.5 7.7 | 2.5 2.4 | 300000 500000 | 5000 5100 | ..... | ..... | ..... |  |
| 7489 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | A-F Amp. | 3.0 | 250 | 8.5 | ..... | 10.5 | ..... | 7700 | 2200 | 17 | ..... | ..... |  |
| 7490 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.600/ 0.300 | A-F/D.C. Amp. | 5.0 | 250 | 4.6 | ..... | 6.0 | ..... | ..... | 2350 | 32 | ..... | ..... |  |
| 7492 | T-6½ | Duotriode | 9DA | 6.3/ 12.6 | 0.300/ 0.150 | R-F Amp. and Computer | 2.8 | 250 | 200■ | ..... | 10 | ..... | ..... | 5500 | 60 | ..... | ..... |  |
| 7494 | T-6½ | Duotriode | 9A | 12.6/ 6.3 | 0.150/ 0.300 | A-F Amp. | 1.1 | 250 | 2 | ..... | 1.25 | ..... | 59000 | 1600 | 95 | ..... | ..... |  |
| 7495 | T-6½ | Beam Tetrode | 9K | 6.0 | 0.750 | VHF Power Amplifier | 12 | 250 | 7.5 | 250 | 45 | 7 Max. | ..... | 7000 | G1 to G2=16. | ..... | ..... |  |
| 7496 | T-5½ | Pentode | 7BK | 6.3 | 0.300 | R-F Amp. | 3.3 | 250 | 68■ | 100 | 11 | 4.2 | 1 Meg. | 4400 | ..... | ..... | ..... |  |
| 7498 | T-5½ | Pentode | 7DB | 6.3 | 0.300 | R-F Amp. | 3.0 | 250 | 160■ | 250 | 9.85 | 2.6 | ..... | 7620 | 75 | ..... | ..... |  |
| 7499 | T-6½ | Pentode | 9BA | 6.3 | 0.750 | Video Amp. | 12 | 250 | 4.5 | 250 | 40 | 6.0 | ..... | 11000 | 26 | ..... | ..... |  |
| 7500 | T-6½ | Beam Tetrode | 9AH | 6.3 | 0.450 | A-F Power Amplifier | 13 | 250 | 12.5 | 250 | 45 | 5.5 | 50000 | 4100 | ..... | ..... | ..... |  |
| 7502 | T-5½ | Heptode | 7CH | 6.3 | 0.300 | Converter | 1.1 | 250 | 1.5 | 100 | 3.0 | 7.5 | 1.0 Meg. | 7250 | ..... | ..... | ..... |  |
| 7543 | T-5½ | Pentode | 7BK | 6.3 | 0.300 | A-F Amp. | 3.3 | Characteristics Same as Type 6AU6. Type 7543 has a Folded Coil Heater for Low Noise Operation. | | | | | | | | | | |
| GB-7550 7550 (3) | T-3 | Duotriode | 8DG | 6.3 | 0.525 | Pulse Amp. | 2.0 | 300 | 30 | ..... | 1400 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 7561 | T-9 | Beam Pent. | 7561 | 25 | 0.300 | S.T.A1 Amp. S.T.A1 Amp. S.T.AB1 Amp. | 13 | 115 250 250 | 8.0 15 18 | 115 150 150 | 55 48-51† 50-110† | 2.5 1-7† .8-14† | 8000 10000 ..... | ..... | ..... | 5000 3000 | 6000 17000 | |
| 7576 | T-3 | Triode | 7576 | 6.3 | 0.450 | VHF Amp. | 4.1 | 200 | 0 | ..... | 15.5 | ..... | ..... | 10700 | 46 | ..... | ..... |  |
| 7581 | T-12 | Pentode | 7S | 6.3 | 0.900 | P.P.AB1 Amp. | 35 | 360 360 450 | 22.5 22.5 37 | 270 270 400 | 88-132† 88-140† 116-210† | 5-15† 5-11† 5.6-22† | ..... | ..... | ..... | 6600† 3800† 5600† | 26.5 18 55 | |
| 7581A | T-12 | Beam Pent. | 7S | 6.3* | 0.900 | S.T.A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 35 | 250 360 450 | 14 22.5 37 | 250 270 400 | 72 88-132† 116-210† | 5 5-15† 5.6-22† | 22500 | 6000 ..... | ..... | 2500 6600† 5600† | 6500 26500 55000 | |
| 7586 | M-N | Triode | 12AQ | 6.3* | 0.140 | VHF Amp. | 1.0 | 75 | 100■ | ..... | 10.5 | ..... | 3000 | 11500 | 35 | ..... | ..... |  |

(1) See Frontal Section.
(2) Design Maximum Values.
† Maximum Signal.

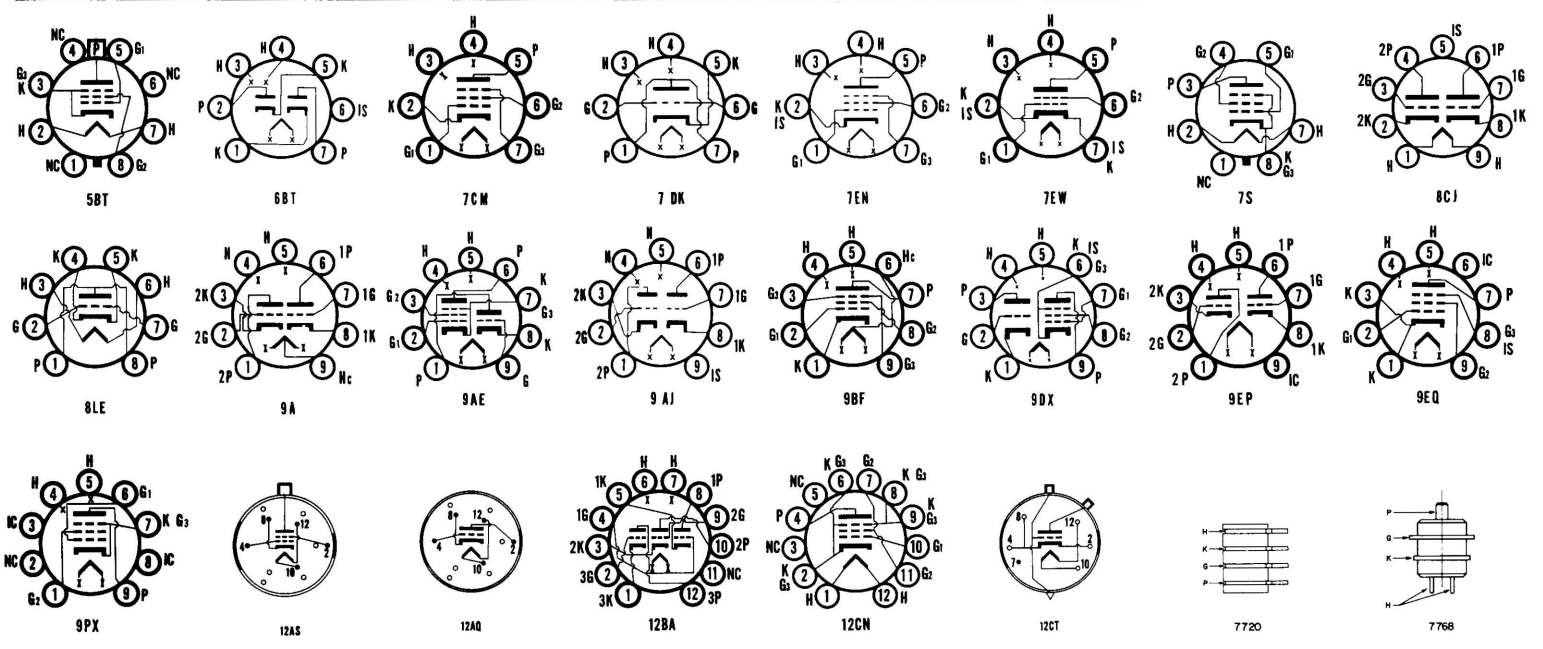
(3) Has Special Mechanical and/or Life Characteristics.
(4) Average Contact Potential Bias Developed Across Specified Grid Resistor.
♦ Filamentary Type.

* Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
† Plate to Plate. ■ Cathode Resistor (ohms).



SYLVANIA TUBES

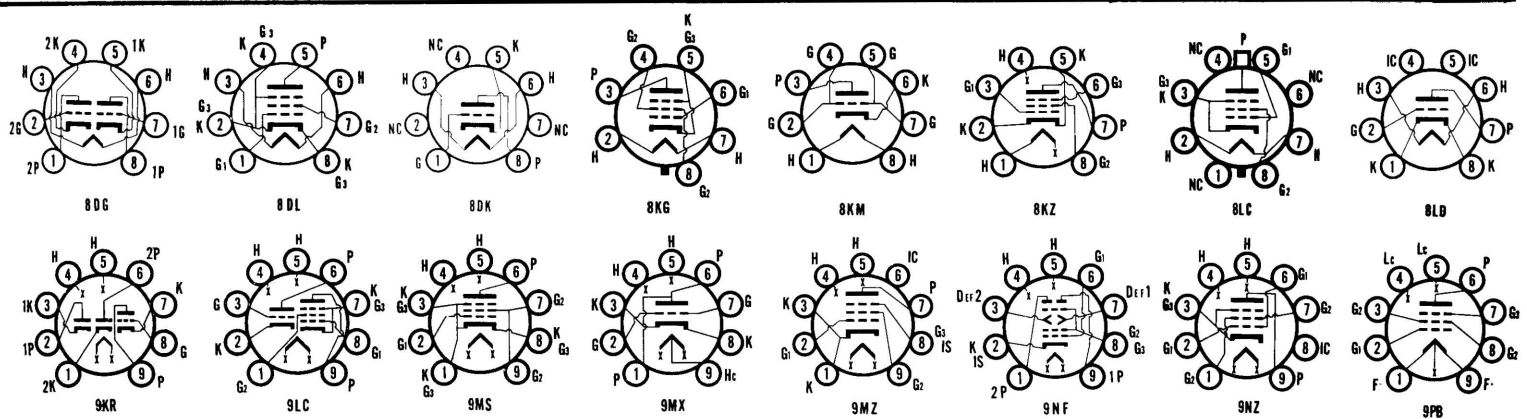
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|-------|---------------------------------|---------------|--------------|--------------|-----------------|---|--------------------------------|---|--|--|---|--|---|---|--|---|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 7587 | M-N | Tetrode | 12AS | 6.3 | 0.150 | VHF Amp. | 2.2 | 125 | 68 ^m | 50 | 10 | 2.7 | 200000 | 10600 | ..... | ..... | ..... |
| 7591 | T-9 | Beam Pent. | 8KG | 6.3 | 0.800 | S.T.A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 19 | 300 300 350 400 450 450 450 425 | 10 12.5 15.5 16 16.5 21 200 ^m 20.5 185 ^m | 300 300 350 350 350 400 400 | 55-65† 86-116† 92-130† 85-143† 77-153† 66-144† 82-94† 80-138† 88-104† | 7-16† 12-26† 13-29† 11-27† 10-27† 9.4-30† 11.5-22† 11.5-26† 13-17.5† | 29000 10200 ..... ..... ..... ..... ..... ..... ..... | ..... ..... ..... ..... ..... ..... ..... ..... ..... | 4000 6600¶ 6600¶ 6600¶ 6600¶ 6600¶ 9000¶ 6600¶ 6600¶ | 11000 23000 30000 37000 43000 45000 28000 32000 26000 | |
| 7591A | T-9 | Beam Pent. | 8KG | 6.3 | 0.800 | S.T. A1 Amp. P.P. AB1 Amp. | 19 | Characteristics Same as Type 7591 Except for Controlled Zero Bias Plate and Screen Current and Low Loss Base. | | | | | | | | | |
| 7631 | T-5½ | Duodiode | 6BT | 6.3 | 0.300 | Detector | ..... | Max. Peak Inverse Plate Voltage = 360 Volts. Max. Peak Plate Current = 10 Ma. Max. Surge Plate Current = 350 Ma. | | | | | | | | | |
| 7643 | T-6½ | Tri. Pent. | 9AE | 6.3 | 0.330 | VHF Amp./Osc. | 1.7 2.1 | 100 170 | 120 ^m 155 ^m | 170 | 14 10 | 2.8 | 400000 | 5000 6200 | 18 40 | ..... | ..... |
| 7687 | T-6½ | Tri. Pentode | 9AE | 6.3 | 0.500 | A-F Amp. | 2.4 3.0 | 215 220 | 8.5 62 ^m | 130 | 7.5 10 | 3.4 | 7200 500000 | 2500 5800 | 18 ..... | ..... | ..... |
| 7688 | Special Base T-7½ | Triple Triode | 12BA | 6.3 | 0.450 | A-F Amp. | 3.0 | Characteristics Same as Type 12AU7. | | | | | | | | | |
| 7689 | Special Base T-7½ | Triple Triode | 12BA | 6.3 | 0.450 | A-F Amp. | 1.1 | Characteristics Same as Type 12AX7. | | | | | | | | | |
| 7690 | Special Base T-7½ | Triple Triode | 12BA | 6.3 | 0.450 | A-F Amp. | 2.8 | Characteristics Same as Type 12AT7. | | | | | | | | | |
| 7693 | T-5½ | Pentode | 7EN | 6.3 | 0.150 | R-F Amp. | 2.6 | 250 | 100 ^m | 150 | 7.4 | 2.9 | 1.3 Meg. | 4600 | G1 to G2=48 |  | ..... |
| 7694 | T-5½ | Pentode | 7EN | 6.3 | 0.150 | R-F Amp. | 3.3 | 250 | 80 ^m | 100 | 9.2 | 3.3 | 1.0 Meg. | 3800 | G1 to G3=25 |  | ..... |
| 7695 | 9-T9 | Pentode | 9PX | 50 | 0.150 | S.T.A1 Amp. P.P.AB1 Amp. | 16 | 130 140 | 11 50 ^m | 130 140 | 100 210-220† | 5-14† 9-20† | 7000 | 11000 ..... | ..... ..... | 1100 1500¶ | 4500 10000 |
| 7701 | T-6½ | Beam Pent. | 9MS | 13.6 | 0.160 | VHF Class C Amplifier | 9.0 | 250 | 12.5 | 250 | 28 | 3.1 | 31000 | 3600 | ..... | ..... | ..... |
| 7716 | T-6½ | Tri. Pentode | 9DX | 13.6 | 0.350 | High Mu High GM VHF Amp. | 1.0 5.0 | 125 200 | 1.0 68 ^m | 125 | 1.5 24 | 5.2 | 35000 70000 | 2900 10000 | 102 ..... | ..... | ..... |
| 7717 | T-5½ | Tetrode | 7EW | 6.3 | 0.200 | VHF Amp. | 2.0 | 125 | 1.0 | 80 | 10 | 1.4 | 125000 | 8000 | ..... | ..... | ..... |
| 7719 | T-6½ | Triode | 9MX | 12.6/ 6.3 | 0.225/ 0.450 | Computer | 6.0 | 300 | 10.5 | ..... | 4 | ..... | 7100 | 3500 | 25 | ..... | ..... |
| 7720 | Ceramic and Metal | Triode | 7720 | 6.3 | 0.240 | VHF Amp. | 1.0 | 150 | 82 ^m | ..... | 7.5 | ..... | ..... | 10500 | 90 | ..... | ..... |
| 7721 | T-6½ | Pentode | 9EQ | 6.3 | 0.320 | VHF Amp. | 4.0 | 190 | 400 ^m | 160 | 22 | 6.0 | 120000 | 35000 | ..... | ..... | ..... |
| 7722 | T-6½ | Pentode | 9EQ | 6.3 | 0.320 | VHF Amp. | 4.0 | 190 | 370 ^m | 160 | 20 | 6.0 | 100000 | 26000 | ..... | ..... | ..... |
| 7724 | T-6½ | Duodiode Tri. | 9KR | 14 | 0.150 | A-F Amp. | ..... | 250 | 3.0 | ..... | 0.7 | ..... | 72000 | 1000 | 72 | ..... | ..... |
| 7728 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | VHF Amp. | 2.8 | Characteristics Same as Type 12AT7. | | | | | | | | | |
| 7729 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | A-F Amp. | 1.1 | Characteristics Same as Type 12AX7. | | | | | | | | | |
| 7730 | T-6½ | Duotriode | 9A | 6.3/ 12.6 | 0.300/ 0.150 | Gen. Purpose | 3.0 | Characteristics Same as Type 12AU7. | | | | | | | | | |
| 7731 | T-6½ | Tri. Pent. | 9AE | 6.3 | 0.450 | VHF Osc. VHF Amp. | 3.0 3.0 | Characteristics Same as Type 6U8. | | | | | | | | | |
| 7732 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.3 | Characteristics Same as Type 6CB6. | | | | | | | | | |
| 7733 | T-6½ | Pentode | 9BF | 6.3/ 12.6 | 0.600/ 0.300 | Video Amp. | 6.5 | Characteristics Same as Type 12BY7A. | | | | | | | | | |
| 7734 | T-6½ | Tri. Pentode | 9LC | 6.3 | 0.900 | V.R. Voltage Control Tube | 7.0 1.0 | 150 150 | 21 2.0 | 150 | 35 5.5 | 1.7 | 1080 340000 | 5000 3200 | 5.4 ..... | ..... ..... | ..... ..... |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts | |
|----------|---------------------------------|-----------------|--------------|---------|-------|--|--------------------------------|---|--|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|--|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | | |
| 7737 (3) | T-6½ | Pentode | 9MZ | 6.3 | 0.320 | Amplifier | 3.0 | 180 | 100 [■] | 150 | 11.5 | 2.9 | ... | 15900 | ... | ... | ... | |
| 7738 | T-5½ | Triode | 7DK | 6.3 | 0.225 | VHF Class C Amplifier | 5.0 | 200 | 100 [■] | ... | 12 | ... | ... | 9500 | 80 | ... | ... | |
| 7751 | T-9 | Beam Pent. | 7S | 6.3 | 1.200 | Pulse Amp. | 10 | 100 | 8.2 | 100 | 100 | 7 | 5000 | 14000 | G1 to G2=5.6 | ... | ... | |
| 7754 | 9-T9 | Beam Pent. | 9PX | 6.3 | 1.200 | A-F Power Amplifier | 16 | Characteristics Same as Type 7695. | | | | | | | | | | |
| 7759 | T-3 | Duotriode | 8DG | 26.5 | 0.090 | VHF Amp./Osc. | 1.1 | 100 | 150 [■] | ... | 6.5 | ... | ... | 5400 | 35 | ... | ... | |
| 7760 | T-3 | Duotriode | 8DG | 26.5 | 0.090 | VHF Amp./Osc. | ... | 26.5 | 2.2 Meg [†] | ... | 3 | ... | ... | 5000 | 20 | ... | ... | |
| 7761 | T-3 | Pentode | 8DL | 26.5 | 0.110 | Video Amp. | 4.0 | 150 | 100 [■] | 100 | 21 | 4 | 50000 | 9000 | ... | ... | ... | |
| 7762 | T-3 | Beam Pent. | 8DL | 26.5 | 0.110 | S.T. A1 Amp. | 4.0 | 110 | 270 [■] | 110 | 30 | 2.2 | 15000 | 4200 | ... | 3000 | 1000 | |
| 7763 (3) | T-6½ | Sheet Beam Tube | 9NF | 6.3 | 0.300 | I-F Amp. Limiter | 0.75 | 135 | Acc. and Screen = 300 Volts. Deflection Electrode = 135 Volts. Total Plate Current = 4.2 Ma. Acc. and Screen Current = 4.0 Ma. | | | | | | | | | |
| 7768 | Ceramic and Metal | Triode | 7768 | 6.3 | 0.400 | VHF Amp. | 5.5 | 200 | 270 [■] | ... | 24 | ... | 4500 | 50000 | 225 | ... | ... | |
| 7803 | T-6½ | Duotriode | 9AJ | 6.3 | 0.365 | I-F Osc. Doubler | 3.5 | 90 | 1.3 | ... | 15 | ... | ... | 12500 | 33 | ... | 1000 | |
| 7841 | Ceramic and Metal | Diode | 7841 | 6.3 | 0.215 | Detector | ... | Max. Peak Inverse Plate Voltage = 350 Volts. Max. D.C. Output Current = 5.0 Ma. | | | | | | | | | | |
| 7861 | T-6½ | Duotriode | 8CJ | 12.6 | 0.175 | Gen. Purpose | 1.3 | 150 | 240 [■] | ... | 8.2 | ... | 6400 | 5500 | 35 | ... | ... | |
| 7867 | T-12 | Beam Pent. | 5BT | 6.3 | 2.500 | S.T. A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 24 | 250 | 120 [■] | 90 | 80 | 1.0 | 12000 | 10000 | ... | 3000 | 7500 | |
| 7868 | Novar T-9 | Beam Pent. | 9NZ | 6.3 | 0.800 | S.T. A1 Amp. P.P.AB1 Amp. P.P.AB1 Amp. | 19 | 300 | 10 | 300 | 60 | 8 | 29000 | 10200 | ... | 6000 | 11000 | |
| 7887 | T-3 | Duotriode | 8DG | 26.5 | 0.090 | Osc./Amp. | 1.1 | 100 | 220 [■] | ... | 8.5 | ... | ... | 5000 | 20 | ... | ... | |
| 7888 | T-3 | Triode | 8DK | 26.5 | 0.045 | UHF Osc. | 1.0 | 100 | 150 [■] | ... | 8.5 | ... | ... | 5800 | 27 | ... | ... | |
| 7889 | T-3 | Duotriode | 8DG | 26.5 | 0.090 | A-F Amp. | 0.55 | 100 | 150 [■] | ... | 0.8 | ... | ... | 1800 | 70 | ... | ... | |
| 7898 | T-6½ | Duotriode | 9EP | 13.5 | 0.150 | VHF Osc./Amp. | 2.75 | 250 | 200 [■] | ... | 10 | ... | 10900 | 5500 | 60 | ... | ... | |
| 7905 | T-6½ | Beam Pent. | 9PB | 6.3 | 0.650 | VHF Class "C" Power Amp. | 10 | 200 | 6 | 185 | 36 | 2.5 | ... | 6700 | ... | 7000 | ... | |
| 7984 | T-12 | Beam Pent. | 12CN | 13.5 | 0.580 | Class "C" Amp. 175 Mc. | 35 | 200 | 7.5 | 125 | 125 | 4.5 | ... | 13500 | ... | 46000 | ... | |
| 7994 | T-3 | Triode | 8KM | 6.3 | 0.250 | VHF Amp. | 2.0 | 100 | 82 [■] | ... | 13.0 | ... | 2200 | 18000 | 41 | ... | ... | |
| 7995 | T-3 | Pentode | 8KZ | 6.3 | 0.250 | R-F I-F Amp. | 1.6 | 150 | 160 [■] | 150 | 8.0 | 2.0 | 85000 | 13000 | ... | ... | ... | |
| 8056 | M-N | Triode | 12AQ | 6.3 | 0.135 | VHF Amp. | 0.45 | 24 | 100 [■] | ... | 8.7 | ... | 1530 | 7500 | 11.5 | ... | ... | |
| 8058 | M-N | Triode | 12CT | 6.3 | 0.135 | UHF Amp. | 1.5 | 110 | 47 [■] | ... | 10 | ... | 5600 | 12400 | 70 | ... | ... | |
| 8064 | T-3 | Beam Pent. | 8DL | 26.5* | 0.045 | VHF Amp. | 0.75 | 100 | 120 [■] | 100 | 7.2 | 2 | 275000 | 4500 | ... | ... | ... | |
| 8068 | T-12 | Beam Pent. | 8LC | 6.3 | 0.900 | Series Reg. | 35 | 3500 | 30 | 100 | 1.0 | ... | 54500 | 5200 | ... | ... | ... | |
| 8070 | T-3 | Triode | 8LD | 6.3 | 0.125 | UHF Amp. | 1.0 | 110 | 130 [■] | ... | 7.5 | ... | ... | 11000 | 58 | ... | ... | |
| 8071 (3) | T-3 | Triode | 8LE | 6.3 | 0.125 | UHF Amp. | 2.0 | 150 | 100 [■] | ... | 11.5 | ... | ... | 12000 | 56 | ... | ... | |

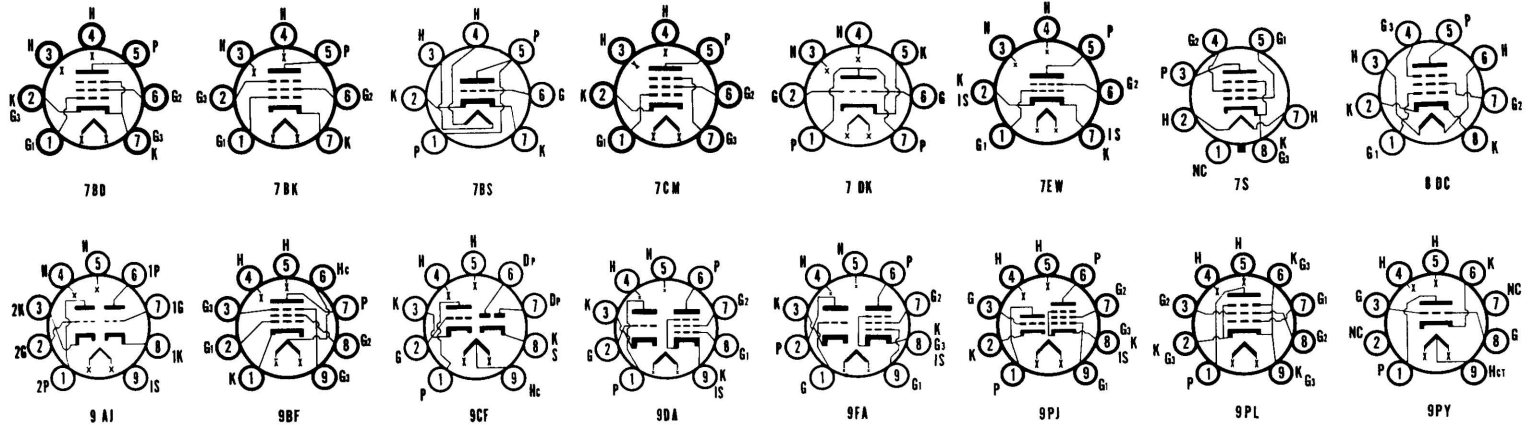
(1) See Frontal Section. (3) Has Special Mechanical and/or Life Characteristics. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.)
 (2) Design Maximum Values. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. † Maximum Signal.
 ‡ Filamentary Type. †† Conversion Transconductance. ††† Plate to Plate. †††† Cathode Resistor (ohms).



7841

SYLVANIA TUBES

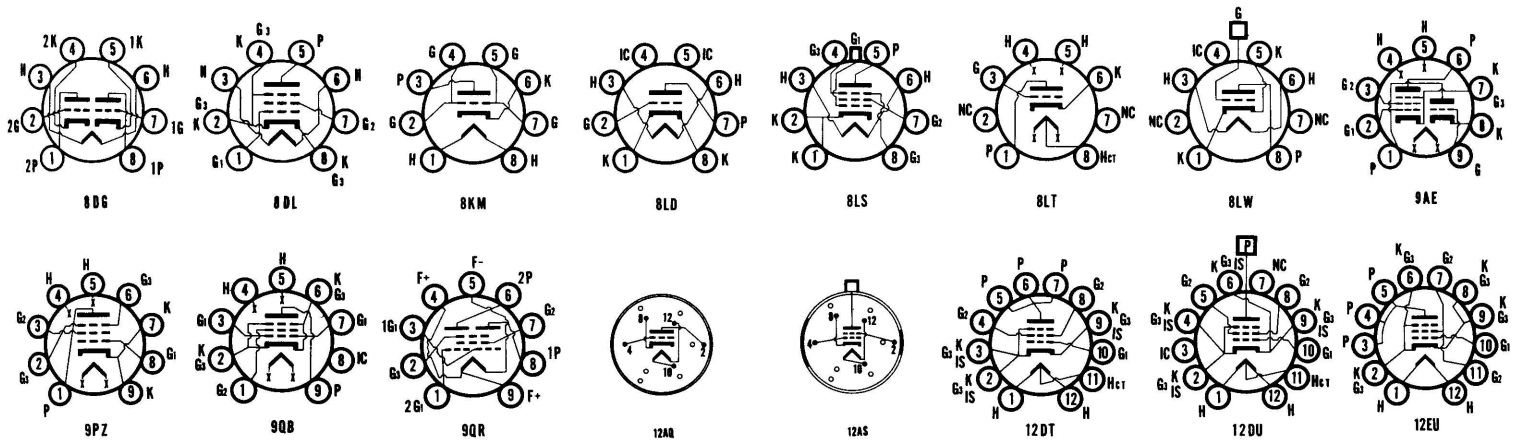
| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Transconductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|----------|---------------------------------|-----------------|--------------|---------------|----------------|---------------------------|--------------------------------|---|---------------------|--------------|-------------------|--------------------|-------------------|--------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 8084 (3) | T-5½ | Pentode | 7CM | 13.5 | 0.160 | VHF Freq. Multiplier | 2.3 | 125 | 1 | 80 | 7.0 | 1.7 | ..... | 10500 | ..... | ..... | ..... |
| 8102 (3) | T-6½ | Tri. Pentode | 9PJ | 13.5 | 0.230 | Gen. Purpose Amp. | 2.5 2.5 | 125 125 | 1 | 125 | 13.5 12.0 | 4.0 | 5400 200000 | 8500 7500 | 46 | ..... | ..... |
| 8103 (3) | T-3 | Double Tri. | 8DG | 26.5 | 0.075 | UHF Amp. UHF Osc. | ..... | 26.5 | 2.2 1 | ..... | 5.5 | ..... | ..... | 11000 | 26 | ..... | ..... |
| 8106 (3) | T-6½ | Pentode | 9PL | 13.5 | 0.250 | Frequency Multiplier | 6.0 | 300 | 3.5 | 150 | 16.0 | 3.2 | 90000 | 9000 | ..... | ..... | ..... |
| 8113 (3) | T-5½ | Tetrode | 7EW | 6.3 | 0.200 | R-F Amp. | 2.0 | 120 | 2.0 | 120 | 10.0 | 2.3 | 20000 | 7000 | ..... | ..... | ..... |
| 8136 | T-5½ | Pentode | 7CM | 6.3 | 0.300 | VHF Amp. | 2.2 | 125 | 56 ^M | 125 | 10.8 | 2.9 | ..... | 9800 | ..... | ..... | ..... |
| 8149 | Comp. T-12 | Beam Pent. | 12DT | 6.5 13.0 | 1.200 0.600 | R-F Power Amp. | 35.0 | 420 | 24 | 180 | 165 | 9.0 | ..... | 7500 | 4.5 | ..... | ..... |
| 8150 | Comp. T-12 | Beam Pent. | 12DU | 6.5 13.0 | 1.200 0.600 | R-F Power Amp. | 35.0 | Characteristics Same as Type 8149. (8150 has Top Cap Construction.) | | | | | | | | | |
| 8156 | Comp. T-9 | Beam Pent. | 12EU | 13.5 | 0.300 | R-F Pwr. Amp. | 15.0 | 200 | 9 | 125 | 75 | 3.5 | ..... | 7600 | ..... | ..... | ..... |
| 8185 (3) | T-3 | Triode | 8KM | 6.3 | 0.300 | R-F Pwr. Amp. | 4.25 | 200 | 220 ^M | ..... | 17.0 | ..... | ..... | 19000 | 42 | ..... | ..... |
| 8186 (3) | T-3 | Triode | 8KM | 26.5 | 0.075 | R-F Pwr. Amp. | 4.25 | Characteristics Same as Type 8185. | | | | | | | | | |
| 8210 (3) | T-3 | Pentode | 8LS | 6.3 | 0.125 | VHF Mixer VHF Amp. | 1.1 | 100 | 100 ^M | 100 | 7.5 | 2.5 | 260000 | 8500 | ..... | ..... | ..... |
| 8211 (3) | T-3 | Pentode | 8DL | 6.3 | 0.360 | Video Amp. | 4.0 | 150 | 62 ^M | 100 | 17.0 | 4.2 | 65000 | 15500 | ..... | ..... | ..... |
| 8212 (3) | T-6½ | Triode | 9PY | 6.3 12.6 | 0.460 0.230 | Cathode Follower | 10.0 | 105 | 75 ^M | ..... | 25.0 | ..... | 965 | 29000 | 28 | ..... | ..... |
| 8213 (3) | T-3 | Triode | 8LT | 6.3 12.6 | 0.380 0.190 | Cathode Follower | 5.0 | 105 | 75 ^M | ..... | 23.0 | ..... | 1348 | 23000 | 31 | ..... | ..... |
| 8223 (3) | T-6½ | Twin Triode | 9AJ | 6.3 | 0.475 | A-F R-F Amp. | 3.0 | 60 | 80 ^M | ..... | 15 | ..... | 1850 | 14000 | 25 | ..... | ..... |
| 8233 (3) | T-9 | Pentode | 9PZ | 6.3 | 0.600 | Power Amp. | 10.0 | 125 | 3 | 125 | 50 | 5.5 | 20000 | 45000 | 30 | ..... | ..... |
| 8254 (3) | T-3 | Triode | 8LW | 6.3 | 0.185 | High Freq. Probe Tube | 1.5 | 80 | 2 | ..... | 14 | ..... | ..... | 14500 | 24 | ..... | ..... |
| 8278 (3) | Novar T-9 | Tetrode | 9QB | 6.3 | 1.200 | Power Amp. | 25.0 | 250 | 12.5 | 250 | 100 | 8.0 | 7300 | 24000 | 14 | ..... | ..... |
| 8319 (3) | T-3 | Triode | 8LD | 6.3 | 0.150 | I-F R-F Amp. | 1.0 | 100 | 160 ^M | ..... | 7.5 | ..... | ..... | 14000 | 55 | ..... | ..... |
| 8334 (3) | T-5½ | Triode | 7DK | 6.3 | 0.225 | UHF Amp. | 4.4 | 200 | 100 ^M | ..... | 18 | ..... | ..... | 10750 | 55 | ..... | ..... |
| 8358 | T-6½ | Twin Beam Pent. | 9QR | 1.9 | 3.150 | R-F Osc. R-F Pwr. Amp. | 7.5 | 180 | 20 | 180 | 50 | 11.5 | ..... | 10000 | 30 | ..... | 4500 |
| 8380 | M-N | Tetrode | 12AS | 6.0 to 8.5 | ..... | Freq. Doubler R-F Osc. | 1.6 | 100 | 68 ^M | 50 | 11 | 2.6 | ..... | 11000 | ..... | ..... | ..... |



AVERAGE CHARACTERISTICS

| TYPE | CONSTRUCTION | | | EMITTER | | USE | Plate Diss. Watts ² | Plate Volts | Negative Grid Volts | Screen Volts | Plate Current Ma. | Screen Current Ma. | Plate Resis. Ohms | Trans-conductance Micros. | Amplification Factor | Ohms Load for Stated Power Output | Power Output Milli-watts |
|----------|---------------------------------|---------------------|--------------|--------------|----------------|------------------------|--------------------------------|---|-----------------------|--------------|-------------------|--------------------|-------------------|---------------------------|----------------------|-----------------------------------|--------------------------|
| | Bulb Size or Style ¹ | Class | Basing Diag. | Volts | Amps. | | | | | | | | | | | | |
| 8382 | M-N | Triode | 12AQ | 6.0 to 8.5 | .... | Class C Amp. R-F Osc. | 2.0 | 75 | 100 ⁴ | .... | 15 | ... | 2200 | 12800 | 28 | .... | .... |
| 8414 (3) | T-3 | Pentode | 8DC | 26.5 | 0.045 | VHF Amp. | .... | 26.5 | 2.2 Meg. ⁴ | 26.5 | 4.5 | 1.5 | 50000 | 5000 | .... | .... | .... |
| 8417 | T-12 | Beam Pent. | 7S | 6.3 | 1.600 | Power Amp. | 35.0 | 300 | 12 | 300 | 100 | 5.5 | 16000 | 23000 | 165 | .... | .... |
| 8425 (3) | T-5½ | Pentode | 7BK | 6.3 | 0.300 | I-F R-F Amp. | 3.5 | 250 | 68 ⁴ | 150 | 10.5 | 4.1 | 1100000 | 6200 | .... | .... | .... |
| 8426 (3) | T-5½ | Pentode | 7BK | 12.6 | 0.150 | I-F R-F Amp. | 3.5 | Characteristics Same as Type 8425. | | | | | | | | | |
| 8431 | T-6½ | Double Tri. | 9AJ | 12.6 | 0.180 | Class C Amp. | 3.5 | 90 | 1.3 | .... | 15 | ... | .... | 12500 | 33 | .... | .... |
| 8441 | M-N | Triode | 12AQ | 6.0 to 8.5 | .... | Amplifier | 1.0 | 110 | 150 ⁴ | .... | 7 | ... | 6800 | 9400 | 64 | .... | .... |
| 8444 (3) | T-3 | Pentode | 8DC | 6.3 | 0.125 | VHF Amp. | 1.1 | 100 | 100 ⁴ | 100 | 8.5 | 2.8 | 260000 | 9000 | .... | .... | .... |
| 8445 (3) | T-6½ | Triode Pent. | 9AE | 6.75 | 0.440 | Gen. Purpose Amp. | 2.0 | 100 | 1 | .... | 12.5 | ... | .... | 7000 | 43 | .... | .... |
| 8446 (3) | T-6½ | Triode Pent. | 9FA | 6.75 | 0.440 | Gen. Purpose Amplifier | 2.0 | 170 | 2 | 170 | 10.0 | 2.5 | 400000 | 6200 | .... | .... | .... |
| 8447 (3) | T-6½ | Double Diode Triode | 9CF | 6.75 to 13.5 | 0.380 to 0.190 | Det. Amp. | .... | Diode Voltage Drop for Ib = 17 Ma = 50 Volts. | | | | | | | | | |
| 8448 (3) | T-6½ | Pentode | 9BF | 6.75 to 13.5 | 0.520 to 0.260 | Power Amp. | 6.5 | 250 | 100 ⁴ | 180 | 26 | 5.7 | 10900 | 5500 | 60 | .... | .... |
| 8456 (3) | M-N | Triode | 12AQ | 6.0 to 8.5 | .... | Cathode Follower | 0.45 | 24 | 100 ⁴ | .... | 8.7 | ... | 1530 | 7500 | 11.5 | .... | .... |
| 8489 (3) | T-6½ | Tri. Pentode | 9DA | 6.3 | 0.450 | Amplifier | 2.8 | 150 | 3 | .... | 15.0 | ... | 4700 | 4500 | 21 | .... | .... |
| 9001 | T-5½ | Pentode | 7BD | 6.3 | 0.150 | VHF Amp. | 0.55 | 250 | 3.0 | 100 | 2.0 | 0.7 | 1 Meg. > | 1400 | .... | .... | .... |
| 9002 | T-5½ | Triode | 7BS | 6.3 | 0.150 | Amplifier | 1.76 | 250 | 7.0 | .... | 6.3 | ... | 11400 | 2200 | 25 | .... | .... |
| 9003 | T-5½ | Pentode | 7BD | 6.3 | 0.150 | VHF Amp. | 1.87 | 250 | 3.0 | 100 | 6.7 | 2.7 | 700000 | 1800 | .... | .... | .... |
| XXD | Now Listed as 14AF7/XXD | | | | | | | | | | | | | | | | |
| XXFM | Now Known as Type 7X7 | | | | | | | | | | | | | | | | |
| XXL | Now Known as Type 7A4 | | | | | | | | | | | | | | | | |

(1) See Frontal Section. (2) Design Maximum Values. † Maximum Signal. (3) Has Special Mechanical and/or Life Characteristics. (4) Average Contact Potential Bias Developed Across Specified Grid Resistor. † Filamentary Type. * Controlled Heater Warm-up Time (applies to parallel connections of types having a tapped heater.) † Plate to Plate. ▣ Cathode Resistor (ohms).



RESISTANCE COUPLED AMPLIFIER DATA

| TYPE | TABLE | TYPE | TABLE |
|--------------------------------|-------|-------------|-------|
| 5AV8 | B,C | 13D2 | K |
| 5B8 | B,C | 18FY6 | G |
| 6AB4 | A | 19HV8 | D |
| 6AN8, 6AN8A, 5AN8 | B,C | 20EZ7 | G |
| 6AQ6 | D | 1273 | M |
| 6AS8, 5AS8 | C | 1280 | M |
| 6AT6, 12AT6 | D | 1620 | M |
| 6AU6, 6AU6A, 3AU6, 4AU6, 12AU6 | E | 5687 | W |
| 6AV6, 3AV6, 12AV6, 4AV6 | G | 5691 | N |
| 6AV11 | L | 5692 | K |
| 6AX8 | H,I | 5693 | O |
| 6B10 | L | 5751 | G |
| 6BE8, 5BE8 | H,I | 5879 | V |
| 6BF6, 12BF6 | J | 6072 | R |
| 6BJ8 | K | 6113 | N |
| 6BR8, 6BR8A, 5BR8 | H,I | 6118 | D |
| 6BT8, 5BT8 | C | 6135 | L |
| 6BY8 | E | 6136 | E |
| 6C4 | L | 6180 | K |
| 6C10 | G | 6201 | A |
| 6CG7, 8CG7 | K | 6267 | U |
| 6CH8 | B,C | 6320 | N |
| 6CN7, 8CN7 | D | 6321 | K |
| 6CR6 | X | 6678 | H,I |
| 6CU8 | B,C | 6679 | A |
| 6DR4 | G | 6680 | L |
| 6EU7 | G | 6681 | G |
| 6F5, 6F5GT, 12F5GT | F | 7025, 7025A | G |
| 6FM8 | Y | 7058 | G |
| 6FQ7, 8FQ7 | K | 7059 | H,I |
| 6J5, 6J5GT, 12J5, 12J5GT | K | 7199 | S,T |
| 6J7, 6J7GT, 12J7GT, 12J7 | M | 7258 | B,C |
| 6K11 | L,G | 7316 | L |
| 6Q7, 6Q7GT, 12Q7GT | D | 7382 | G |
| 6Q11 | L,G | 7543 | E |
| 6R7 | J | 7687 | S,T |
| 6SC7, 12SC7 | N | 7688 | L |
| 6SF5, 6SF5GT, 12SF5, 12SF5GT | F | 7689 | G |
| 6SH7, 12SH7 | E | 7690 | A |
| 6SJ7, 6SJ7GT, 12SJ7, 12SJ7GT | O | 7728 | A |
| 6SL7GT, 12SL7GT | N | 7729 | G |
| 6SN7GTB, 8SN7GTB, 12SN7GTA | K | 7730 | L |
| 6SQ7, 6SQ7GT, 12SQ7, 12SQ7GT | P | 7731 | H,I |
| 6SR7, 12SR7 | J | 7889 | D |
| 6ST7 | J | B36 | K |
| 6T8A, 5T8, 19T8 | D | B65 | K |
| 6U8, 6U8A, 5U8, 9U8A | H,I | B152 | A |
| 7A4, 14A4 | K | B309 | A |
| 7B4 | F | B329 | L |
| 7B6, 14B6 | P | B339 | G |
| 7C7, 14C7 | M | DH77 | D |
| 7E6, 14E6 | J | EABC80 | D |
| 7F7, 14F7 | N | EBC90 | D |
| 7K7 | N | EBC91 | G |
| 7N7, 14N7 | K | EC90 | L |
| 12AT7 | A | EC92 | A |
| 12AU7, 12AU7A, 9AU7, 7AU7 | L | ECC81 | A |
| 12AV7 | Q | ECC82 | L |
| 12AX7, 6AX7 | G | ECC83 | G |
| 12AY7 | R | ECF82 | H,I |
| 12AZ7A | A | EF86 | U |
| 12DM7 | G | EF94 | E |
| 12DT7 | G | H63 | F |
| 12DT8 | A | HBC90 | D |
| 12DW7 | G,L | HBC91 | G |
| | | HF94 | E |
| | | L63 | K |
| | | L77 | L |
| | | PCF82 | H,I |
| | | Z63 | M |

SYMBOLS USED

| SYMBOL | FUNCTION | UNIT |
|-----------|---------------------------------|-----------|
| Rb | Plate Load Resistor | Megohms |
| Rc2 | Screen Dropping Resistor | Megohms |
| Rcf | Grid Resistor of Following Tube | Megohms |
| Ebb | Plate Supply Voltage | Volts |
| Eb | Plate Voltage at Plate | Volts |
| Ec or Ec1 | Negative Grid Voltage | Volts |
| Ec2 | Screen Grid Voltage | Volts |
| Esig | Input Signal | RMS Volts |
| Eout | Output to Following Grid | RMS Volts |
| Ib | Plate Current | Ma. |
| Ic2 | Screen Grid Current | Ma. |
| Cc | Coupling Condenser | mfd. |
| Cc2 | Screen By-pass Condenser | mfd. |

Values of capacity are not specified since these are dependent mostly on the frequency characteristic required in each individual case.

$$\text{For low frequency limit} = f_1 \quad Cc = \frac{1.6 \times 10^6}{f_1 R_{cf}} \text{ mfd.}$$

$$Ck = \frac{1.6 \times 10^6}{f_1 R_k} \text{ mfd.} \quad Cc2 = \frac{1.6 \times 10^6}{f_1 R_{c2}} \text{ mfd.}$$

Some text books show a more complicated method for calculating these by-pass condensers, but this method is quite rapid and gives conservative values. The loss due to incomplete by-passing will be less than 1% except for the cathode by-pass where it will be about 3%. The size condenser may be halved where economy is essential unless stages are cascaded and highest quality is required.

Table A

| | Ebb = 100 Volts | | | | | | Ebb = 250 Volts | | | | | | | |
|---------|-----------------|-------|-------|-------|-------|--------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1 | | 0.27 | | 0.47 | | 0.1 | | 0.27 | | 0.47 | | | |
| Rb | 0.27 | 0.47 | 0.27 | 0.47 | 1.0 | 0.47 | 1.0 | 0.27 | 0.47 | 0.27 | 0.47 | 1.0 | 0.47 | 1.0 |
| Rcf | 1500 | 1800 | 3900 | 3900 | 4700 | 5600 | 6800 | 680 | 680 | 1800 | 1800 | 2200 | 3300 | 3900 |
| Rk | 0.54 | 0.51 | 0.23 | 0.23 | 0.22 | 0.150 | 0.141 | 1.62 | 1.62 | 0.69 | 0.69 | 0.65 | 0.41 | 0.40 |
| Ib | 45.2 | 48.1 | 37.1 | 37.1 | 39.6 | 28.7 | 32.7 | 86.9 | 86.9 | 62.3 | 62.3 | 75.6 | 55.7 | 59.9 |
| Ec1 | -0.81 | -0.92 | -0.90 | -0.90 | -1.04 | -0.840 | -0.960 | -1.10 | -1.10 | -1.24 | -1.24 | -1.43 | -1.35 | -1.56 |
| Eb | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Esig | 3.0 | 3.0 | 2.8 | 3.0 | 3.1 | 2.95 | 3.0 | 3.90 | 4.10 | 3.55 | 3.70 | 3.65 | 3.50 | 3.60 |
| Eout | 30.0 | 30.0 | 28.0 | 30.0 | 31.0 | 29.5 | 30.0 | 39.0 | 41.0 | 35.5 | 37.0 | 36.5 | 35.0 | 36.0 |
| Gain | 1.9 | 1.7 | 1.9 | 1.7 | 1.4 | 1.8 | 1.4 | .54 | 1.0 | 1.0 | .92 | .79 | .89 | .75 |
| % Dist. | 0.54 | 0.29 | 0.30 | 0.29 | 0.38 | 0.22 | 0.34 | 0.61 | 0.49 | 0.54 | 0.56 | 0.71 | 0.64 | 0.77 |
| Esig(1) | 6.6 | 8.7 | 8.4 | 8.4 | 11.5 | 6.5 | 10.0 | 23.0 | 19.7 | 19.0 | 20.6 | 25.5 | 22.1 | 27.0 |
| Eout | 30.0 | 30.0 | 28.0 | 28.9 | 30.3 | 29.5 | 29.4 | 37.0 | 40.2 | 35.2 | 36.8 | 35.9 | 34.5 | 35.1 |
| Gain | 3.9 | 4.7 | 5.0 | 4.5 | 4.9 | 3.6 | 4.1 | 4.4 | 4.2 | 4.7 | 4.2 | 4.6 | 4.8 | 4.6 |
| % Dist. | | | | | | | | | | | | | | |

Table B Triode Section

| | Ebb = 100 Volts | | | | | | Ebb = 250 Volts | | | | | |
|---------|-----------------|------|------|------|------|------|-----------------|------|------|------|------|------|
| | .047 | | 0.1 | | 0.27 | | .047 | | 0.1 | | 0.27 | |
| Rb | .1 | .27 | .1 | .47 | .27 | .47 | .1 | .27 | .1 | .47 | .27 | .47 |
| Rcf | 1200 | 1200 | 2200 | 3300 | 6800 | 8200 | 560 | 660 | 1000 | 1200 | 3900 | 3900 |
| Rk | 1.33 | 1.33 | 0.70 | 0.64 | .275 | .260 | 3.84 | 3.84 | 1.98 | 1.95 | 0.76 | 0.76 |
| Ib | -1.6 | -1.6 | -1.5 | -2.1 | -1.9 | -2.1 | -2.2 | -2.2 | -2.0 | -2.3 | -3.0 | -3.0 |
| Ec1 | 36 | 36 | 29 | 34 | 24 | 28 | 66 | 66* | 50 | 53 | 42 | 42 |
| Eb | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 | .1 |
| Esig | 1.25 | 1.27 | 1.13 | 1.22 | 1.10 | 1.12 | 1.45 | 1.50 | 1.37 | 1.44 | 1.25 | 1.28 |
| Eout | 12.5 | 12.7 | 11.3 | 12.2 | 11.0 | 11.2 | 14.5 | 15.0 | 13.7 | 14.4 | 12.5 | 12.8 |
| Gain | 0.9 | 0.9 | 0.9 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 |
| % Dist. | 0.60 | 0.63 | .60 | .98 | .88 | 1.07 | 1.17 | 1.17 | 1.02 | 1.28 | 1.65 | 1.65 |
| Esig(1) | 7.4 | 8.0 | 6.8 | 11.5 | 9.7 | 12.0 | 17.0 | 17.5 | 14.0 | 18.5 | 20.7 | 21.1 |
| Eout | 12.3 | 12.7 | 11.3 | 11.7 | 11.0 | 11.2 | 14.5 | 15.0 | 13.7 | 14.4 | 12.5 | 12.8 |
| Gain | 4.7 | 4.5 | 4.6 | 4.9 | 4.7 | 4.3 | 5.2 | 5.0 | 5.0 | 4.6 | 4.8 | 4.2 |
| % Dist. | | | | | | | | | | | | |

Note (1) For Self Bias Operation This is Taken at the Grid Current Point With Less Than 1/2 μa. Grid Current.

RESISTANCE COUPLED AMPLIFIER DATA

Table S Triode Section

| Rb | Ebb = 100 VOLTS | | | | | | Ebb = 250 VOLTS | | | | | |
|---------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|
| | .047 | | 0.10 | | 0.27 | | .047 | | 0.10 | | 0.27 | |
| Rcf | 0.1 | 0.27 | 0.1 | 0.47 | 0.27 | 0.47 | 0.1 | 0.27 | 0.1 | 0.47 | 0.27 | 0.47 |
| Rk | 1500 | 1500 | 2700 | 3300 | 8200 | 8200 | 560 | 680 | 1200 | 1500 | 3300 | 3900 |
| Ib | 1.24 | 1.24 | 0.69 | 0.64 | 0.26 | 0.26 | 3.79 | 3.69 | 1.93 | 1.86 | 0.74 | 0.73 |
| Ec1 | -1.86 | -1.86 | -1.86 | -2.11 | -2.13 | -2.22 | -2.12 | -2.51 | -2.34 | -2.79 | -2.44 | -2.85 |
| Eb | 39.8 | 39.8 | 29.1 | 33.9 | 27.7 | 24.9 | 69.9 | 74.0 | 52.7 | 61.2 | 47.6 | 50.2 |
| Eaig | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Eout | 5.4 | 5.7 | 5.2 | 5.4 | 4.8 | 5.0 | 6.8 | 6.8 | 6.2 | 6.4 | 5.7 | 5.7 |
| Gain | 10.8 | 11.4 | 10.4 | 10.8 | 9.6 | 10.0 | 13.6 | 13.6 | 12.4 | 12.7 | 11.4 | 11.4 |
| % Dist. | 3.6 | 3.2 | 3.7 | 2.4 | 2.8 | 2.4 | 2.2 | 1.8 | 2.1 | 1.6 | 1.7 | 1.4 |
| Eaig(1) | 0.73 | 0.71 | 0.67 | 0.87 | 0.9 | 0.9 | 1.03 | 1.33 | 1.14 | 1.52 | 1.27 | 1.56 |
| Eout | 7.8 | 8.1 | 6.9 | 9.5 | 8.6 | 9.0 | 14.2 | 18.3 | 14.4 | 19.5 | 14.5 | 17.7 |
| Gain | 10.7 | 11.4 | 10.3 | 10.9 | 9.6 | 10.0 | 13.8 | 13.8 | 12.6 | 12.8 | 11.4 | 11.3 |
| % Dist. | 5.0 | 4.6 | 4.7 | 4.7 | 5.0 | 4.4 | 4.8 | 5.0 | 5.0 | 5.0 | 4.6 | 4.7 |

Table T Pentode Section

| Rb | Ebb = 100 VOLTS | | | | | | Ebb = 250 VOLTS | | | | | | | |
|---------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| | 0.1 | | 0.27 | | 0.47 | | 0.1 | | 0.27 | | 0.47 | | | |
| Rc2 | 0.33 | | 0.82 | | 1.5 | | 0.33 | | 1.0 | | 1.8 | | | |
| Rcf | 0.27 | 0.47 | 0.27 | 0.47 | 1.0 | 0.47 | 1.0 | 0.27 | 0.47 | 0.27 | 1.0 | 0.47 | 1.0 | |
| Rk | 1500 | 1500 | 3300 | 3300 | 3300 | 5600 | 5600 | 470 | 470 | 1200 | 1200 | 2200 | 2200 | |
| Ib | .612 | .612 | .273 | .273 | .273 | .159 | .159 | 1.84 | 1.84 | .69 | .69 | .69 | .404 | .404 |
| Ic2 | .209 | .209 | .095 | .095 | .095 | .054 | .054 | .610 | .610 | .21 | .21 | .21 | .123 | .123 |
| Ec1 | -1.23 | -1.23 | -1.21 | -1.21 | -1.21 | -1.19 | -1.19 | -1.15 | -1.15 | -1.08 | -1.08 | -1.08 | -1.16 | -1.16 |
| Ec2 | 29.8 | 29.8 | 20.9 | 20.9 | 20.9 | 17.8 | 17.8 | 50.9 | 50.9 | 38.9 | 38.9 | 38.9 | 27.5 | 27.5 |
| Eb | 37.6 | 37.6 | 25.1 | 25.1 | 25.1 | 24.1 | 24.1 | 64.9 | 64.9 | 62.4 | 62.4 | 62.4 | 58.8 | 58.8 |
| Eaig | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| Eout | 5.0 | 5.8 | 5.2 | 6.3 | 7.2 | 5.85 | 7.1 | 10.0 | 11.0 | 10.2 | 12.5 | 14.4 | 11.8 | 14.2 |
| Gain | 100 | 116 | 104 | 126 | 144 | 107 | 142 | 200 | 220 | 204 | 250 | 288 | 236 | 284 |
| % Dist. | 2.8 | 2.6 | 2.0 | 1.5 | 1.5 | 2.9 | 2.7 | 2.2 | 1.7 | 2.3 | 2.2 | 2.2 | 2.3 | 2.1 |
| Eaig(1) | .09 | .11 | .09 | .09 | .09 | .07 | .07 | .14 | .19 | .09 | .08 | .09 | .11 | .15 |
| Eout | 9.1 | 12.2 | 9.1 | 11.5 | 13.2 | 8.15 | 10.2 | 26.5 | 39.5 | 17.8 | 19.5 | 25.4 | 25.0 | 41.0 |
| Gain | 101 | 111 | 101 | 128 | 147 | 107 | 146 | 189 | 208 | 198 | 244 | 282 | 227 | 273 |
| % Dist. | 4.6 | 4.9 | 5.0 | 5.0 | 4.6 | 5.0 | 5.0 | 4.5 | 4.1 | 3.4 | 3.4 | 3.4 | 5.0 | 4.9 |

Table U

| Rb | Ebb = 100 VOLTS | | | | | | Ebb = 250 VOLTS | | | | | | | |
|---------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|------|
| | 0.1 | | 0.27 | | 0.47 | | 0.1 | | 0.27 | | 0.47 | | | |
| Rc2 | 0.56 | | 1.5 | | 2.7 | | 0.56 | | 1.5 | | 2.7 | | | |
| Rcf | 0.27 | 0.47 | 0.27 | 0.47 | 1.0 | 0.27 | 0.47 | 0.27 | 0.47 | 0.27 | 1.0 | 0.47 | 1.0 | |
| Rk | 1500 | 1800 | 3300 | 3300 | 3300 | 5600 | 5600 | 820 | 820 | 1200 | 1500 | 1500 | 1800 | 2200 |
| Ib | 0.51 | 0.48 | 0.23 | 0.23 | 0.23 | 0.13 | 0.13 | 1.47 | 1.47 | 0.68 | 0.65 | 0.65 | 0.41 | 0.39 |
| Ic2 | 0.10 | 0.10 | 0.05 | 0.05 | 0.05 | 0.03 | 0.03 | 0.29 | 0.29 | 0.13 | 0.13 | 0.13 | 0.08 | 0.07 |
| Ec1 | -0.92 | -1.10 | -0.91 | -0.91 | -0.91 | -0.91 | -0.91 | -1.44 | -1.44 | -0.97 | -1.17 | -1.17 | -0.88 | -1.0 |
| Ec2 | 43 | 43 | 24 | 24 | 24 | 18 | 18 | 87 | 87 | 54 | 54 | 54 | 33 | 60 |
| Eb | 48 | 51 | 37 | 37 | 37 | 38 | 38 | 102 | 102 | 66 | 74 | 74 | 56 | 66 |
| Eaig | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Eout | 4.15 | 4.45 | 4.95 | 6.0 | 7.15 | 5.9 | 7.45 | 11.2 | 12.5 | 15.7 | 18.6 | 22.0 | 21.8 | 25.3 |
| Gain | 83.0 | 89.0 | 99.0 | 120 | 143 | 118 | 149 | 112 | 125 | 157 | 186 | 220 | 218 | 253 |
| % Dist. | 1.2 | 1.5 | 3.1 | 2.8 | 2.1 | 4.0 | 3.0 | 0.6 | 0.5 | 0.8 | 0.6 | 0.8 | 1.9 | 1.3 |
| Eaig(1) | 0.12 | 0.16 | 0.08 | 0.09 | 0.1 | 0.06 | 0.08 | 0.51 | 0.49 | 0.21 | 0.29 | 0.28 | 0.13 | 0.19 |
| Eout | 9.65 | 13.5 | 7.6 | 10.5 | 13.5 | 6.95 | 11.6 | 51.0 | 54.5 | 32.0 | 48.0 | 54.5 | 26.2 | 45.0 |
| Gain | 80.3 | 84.4 | 95.0 | 116 | 135 | 116 | 145 | 100 | 111 | 152 | 165 | 194 | 201 | 237 |
| % Dist. | 3.4 | 5.0 | 5.0 | 4.6 | 4.2 | 4.7 | 5.0 | 4.2 | 3.1 | 2.7 | 5.0 | 3.3 | 2.9 | 4.5 |

Note (1) For Self Bias Operation This is Taken at the Grid Current Point With Less than $\frac{1}{2}\mu\text{a}$. Grid Current.

Table V

| Rb | Ebb = 180 VOLTS | | | | | | Ebb = 300 VOLTS | | | | | | | |
|------|-----------------|------|------|------|------|------|-----------------|------|------|------|------|-----|------|------|
| | 0.1 | | 0.22 | | 0.47 | | 0.1 | | 0.22 | | 0.47 | | | |
| Rc2 | 0.33 | | 0.82 | | 1.8 | | 0.33 | | 0.82 | | 1.2 | | | |
| Rcf | 0.22 | 0.47 | 0.22 | 0.47 | 1.0 | 0.47 | 1.0 | 0.22 | 0.47 | 0.22 | 0.47 | 1.0 | 0.47 | 1.0 |
| Rk | 680 | 680 | 1200 | 1200 | 1200 | 2500 | 2500 | 330 | 330 | 580 | 580 | 580 | 1200 | 1200 |
| Eaig | .5 | .5 | .37 | .36 | .33 | .27 | .26 | .45 | .42 | .34 | .34 | .33 | .28 | .27 |
| Eout | 28 | 33 | 24 | 31 | 34 | 27 | 32 | 32 | 35 | 28 | 37 | 41 | 35 | 42 |
| Gain | 56 | 65 | 65 | 87 | 101 | 98 | 122 | 68 | 83 | 81 | 109 | 123 | 125 | 152 |

Table W

| Rb | Ebb = 300 VOLTS | | | | | | Ebb = 400 VOLTS | | | | | | | |
|---------|-----------------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| | .022 | | .047 | | .10 | | .022 | | .047 | | .10 | | | |
| Rcf | 0.1 | 0.27 | 0.1 | 0.27 | 0.1 | 0.27 | 0.47 | 0.1 | 0.27 | 0.1 | 0.27 | 0.1 | 0.27 | 0.47 |
| Rk | 820 | 820 | 1500 | 1800 | 2700 | 3900 | 4700 | 820 | 820 | 1500 | 1800 | 2700 | 3900 | 4700 |
| Ib | 7.22 | 7.22 | 3.8 | 3.54 | 1.94 | 1.74 | 1.63 | 9.75 | 9.75 | 5.09 | 4.8 | 2.64 | 2.34 | 2.2 |
| Ec1 | -5.92 | -5.92 | -5.7 | -6.38 | -5.24 | -6.88 | -7.66 | -8.0 | -8.0 | -7.64 | -8.64 | -7.13 | -9.3 | 10.34 |
| Eb | 135.3 | 135.3 | 115.7 | 127.0 | 100.8 | 119.1 | 129.3 | 177.5 | 177.5 | 155.9 | 165.7 | 128.9 | 156.9 | 169.7 |
| Eaig | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Eout | 13.5 | 13.8 | 13.4 | 13.6 | 13.0 | 13.0 | 13.0 | 13.5 | 13.8 | 13.5 | 13.7 | 13.3 | 13.4 | 13.3 |
| Gain | 13.5 | 13.8 | 13.4 | 13.6 | 13.0 | 13.0 | 13.0 | 13.5 | 13.8 | 13.5 | 13.7 | 13.3 | 13.4 | 13.3 |
| % Dist. | 1.1 | 0.9 | 1.1 | 0.8 | 1.2 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.9 | 0.7 | 0.7 |
| Eaig | 4.19 | 4.19 | 4.03 | 4.51 | 3.7 | 4.86 | 5.42 | 5.66 | 5.66 | 5.4 | 6.12 | 5.04 | 6.44 | 7.31 |
| Eout | 56.5 | 58.0 | 54.0 | 61.5 | 48.0 | 63.0 | 69.8 | 76.2 | 78.2 | 73.0 | 83.8 | 66.5 | 85.5 | 97.5 |
| Gain | 13.5 | 13.8 | 13.4 | 13.6 | 13.0 | 13.0 | 12.9 | 13.5 | 13.8 | 13.5 | 13.7 | 13.2 | 13.3 | 13.3 |
| % Dist. | 4.8 | 4.4 | 4.6 | 4.4 | 4.8 | 4.6 | 4.8 | 4.9 | 4.4 | 4.8 | 4.5 | 5.0 | 4.7 | 5.0 |

Table X

| Rb | Ebb = 90 VOLTS | | | Ebb = 180 VOLTS | | | Ebb = 300 VOLTS | | |
|--------------|----------------|------|------|-----------------|------|------|-----------------|------|------|
| | 0.1 | 0.27 | 0.47 | 0.1 | 0.27 | 0.47 | 0.1 | 0.27 | 0.47 |
| Rc2 | 0.47 | 1.5 | 2.7 | 0.39 | 1.2 | 3.3 | 0.47 | 1.5 | 3.3 |
| Rcf | 0.27 | 0.47 | 1.0 | 0.27 | 0.47 | 1.0 | 0.27 | 0.47 | 1.0 |
| Rk | 1200 | 2200 | 4700 | 1200 | 1200 | 2700 | 390 | 1000 | 1000 |
| Eaig | .33 | .23 | .22 | .61 | .32 | .27 | .51 | .43 | .40 |
| Eout | 15 | 15 | 17 | 27 | 28 | 30 | 40 | 45 | 52 |
| Gain | 45 | 65 | 77 | 44 | 87 | 110 | 78 | 105 | 134 |
| % Distortion | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

Table Y

| Rb | Ebb = 180 VOLTS | | | | | Ebb = 300 VOLTS | | | | | | |
|---------|-----------------|------|------|------|------|-----------------|------|------|------|------|------|------|
| | 0.10 | 0.24 | 0.24 | 0.51 | 0.51 | 1.0 | 0.10 | 0.24 | 0.24 | 0.51 | 0.51 | 1.0 |
| Rcf | 0.10 | 0.24 | 0.24 | 0.51 | 0.51 | 1.0 | 0.10 | 0.24 | 0.24 | 0.51 | 0.51 | 1.0 |
| Rk | 2400 | 2700 | 4300 | 4700 | 7500 | 8200 | 1800 | 2000 | 3000 | 3300 | 5600 | 6200 |
| Eaig | .62 | .70 | .60 | .70 | .60 | .70 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.1 |
| Eout | 18 | 23 | 24 | 31 | 28 | 35 | 35 | 42 | 43 | 52 | 50 | 60 |
| Gain | 29 | 34 | 40 | 45 | 47 | 50 | 33 | 38 | 44 | 49 | 51 | 55 |
| % Dist. | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

TUBE TYPE BASING ARRANGEMENTS

| BASE | TYPE | BASE | TYPE | BASE | TYPE | BASE | TYPE |
|------|--|------|---|------|--|------|--|
| OA5 | OA5 | 6AR | 1AE4, 1AF4, 1L4, 1T4, 1U4, 5910 | 7CV | 4GZ5, 6AS5, 6CA5, 6CU5, 6EH5, 6GZ5, 11C5, 12AS5, 12C5, 12CA5, 12CN5, 12CU5, 12DM5, 12ED5, 12EH5, 12FX5, 12R5, 17C5, 17CA5, 17CU5, 17R5, 25C5, 25CA5, 25EH5, 25F5, A, 32ET5, 34GD5, 35C5, 35EH5, 40FR5, 50C5, 50CA5, 50EH5, 50FA5, 50FK5, 60FX5 | 8BS | 28D7, W, 1238 |
| 1AG4 | 1AG4 | 6AU | 1AF5, 1S5 | | | 8BW | 7F8, W, 14F8 |
| 1AG5 | 1AG5 | 6AX | 1LD5 | 7DB | 6AM6, 7498 | 8BZ | 7X7 |
| 1AH4 | 1AH4 | 6B | 41, 42, 43 | 7DC | 1L6, 1U6 | 8CH | 6AL7GT |
| 1AJ5 | 1AJ5 | 6BA | 3D6 | 7DF | 3BN6, 4BN6, 6BN6, 12BN6 | 8CJ | 2C51, 5670, WA, 7861 |
| 1AK4 | 1AK4 | 6BG | 6C4, 6DR4, 6100, 6135, 6136 | 7DK | 1DY4, A, 2AF4, A, B, 2DX4, 2DY4, A, 2DZ4, 2T4, 3AF4A, B, 3DX4, 3DY4, A, 3DZ4, 5AF4A, 6AF4, A, 6AN4, 6DX4, 6DY4, A, 6DZ4, 6T4, 7738, 8334 | 8CK | 6AQ7GT |
| 1AK5 | 1AK5 | 6BS | 2050, A | 7DU | 6354 | 8CP | 1AC5, 1AD5 |
| 1V6 | 1V6 | 6BT | 3AL5, 6AL5, 6EB5, 12AL5, 5726, 5726/6AL5W/6097, 6097, 6663/6AL5, 6919, 7055, 7631 | 7DX | 7A6, 50X6 | 8CT | 6BA7, 12BA7 |
| 3C | 1AU3, 1B3GT, 1G3, 1J3, 1J3A, 1K3, 1N2A | 6BW | 1DN5, 1U5 | 7EA | 6CR6, 12CR6 | 8DA | 1S6 |
| 4AA | 1LE3, 1293 | 6BX | 3V4 | 7EG | 2BN4, A, 3BN4A, 4BN4, 6BN4A | 8DC | 5636, 5908, 5916, 6205, 6206, 6943, 6944, 8414, 8444 |
| 4AB | 2X2, 2X2A | 6CC | 6AR5 | 7EJ | 7001 | 8DD | 5643 |
| 4AC | 3A3 | 6CH | 6AM5, 6BJ5, 6516 | 7EN | 3DT6, A, 4DT6, A, 5GX6, 6DT6, A, 6GX6, 6GY6, 6HZ6, 12UT6, 7693, 7694 | 8DF | 6AZ5 |
| 4AH | 1R4 | 6CJ | 5641 | 7ES | 1AN5 | 8DG | 6BF7W, 6021, 6111, 6112, 6832, 6947, 6948, 7327, 7550, 7759, 7760, 7887, 7889, 8103 |
| 4AJ | OA3, A, OB3, A, OC3, A, OD3, A, 1265, 1266 | 6CK | 6AU5GT, 6AV5GA, 6BD5GT, 6FW5, 12AV5GA, 17AV5GA, 18A5, 25AV5GA, 6000 | 7EW | 2CY5, 2EA5, 2EV5, 3CY5, 3EA5, 3EV5, 4CY5, 6CY5, 6EA5, 6EV5, 7167, 7717, 8113 | 8DJ | 5896, 5903, 6052, 6053, 6110 |
| 4AM | 2C22 | 6CL | 5851, 6147 | 7FB | 12EL6 | 8DK | 6AD4, 6AK4, 5718, 5719, 5904, 5977, 6055, 6814, 6946, 7888 |
| 4BU | OY4, OY4G | 6CN | 6BY5G, GA | 7FD | 12K5 | 8DL | 5639, 5840, 5899, 5902, 5905, 5906, 5907, 6049, 6056, 6788, 6945, 7761, 7762, 8064, 8211 |
| 4C | 5Z3, 80, 83, 1275 | 6E | 25Z5 | 7FL | 2EN5 | 8DM | 5987 |
| 4CG | 6AU4GTA, 6AX4GT, GTA, 6CQ4, 6DA4, A, 6DE4, 6DM4, A, 6DO4, 6DT4, 6W4GT, GTA, 12AX4GT, GTA, GTB, 12D4, A, 12DM4, A, 12DQ4, 17AX4GT, GTA, 17D4, A, 17DE4, 17DM4, A, 17DQ4, 19AU4, GTA, 22DE4, 25AX4GT, 25W4GT | 6F | 6C6, 6D6, 78, 1221 | 7FP | 2ER5, 2ES5, 2FH5, 2FQ5, A, 2FY5, 2GK5, 3ER5, 3ES5, 3FH5, 3FQ5, A, 3FY5, 3GK5, 4GK5, 6ER5, 6ES5, 6FH5, 6FQ5, A, 6FY5, 6GK5, 6ER5 | 8DO | 5968 |
| 4CK | 5823 | 6G | 75 | 7FQ | 2FV6, 6FV6 | 8DR | 5969 |
| 4CN | 5644 | 6H | 6HQ6 | 7FW | 6GN6, 12GN6 | 8DS | 5970 |
| 4D | 2A3, 6A3, 45, 1230, 1276 | 6Q | 6AC5GT, 6C5, GT, 6J5, GT, 12J5GT, 884 | 7FZ | 35GL6, 50HC6 | 8DY | 6BA5 |
| 4K | 1229 | 6R | 6E5, 6U5 | 7GA | 2FS5, 2GU5, 3FS5, 3GU5, 6FG5, 6FS5, 6GU5 | 8E | 6B8, 12C8 |
| 4R | OZ4, OZ4A, OZ4G | 6S | 6AX5GT, 6X5GT, WGT, 1274 | 7GK | 2GW5, 3GW5, 4GW5, 6GW5 | 8EC | 7212, 7358 |
| 4V | OA4G, 1267 | 6X | 1A5GT | 7GM | 2HA5, 2HK5, 2HM5, 3HA5, 3HK5, 3HM5, 4HA5, 4HK5, 4HM5, 6HA5, 6HK5, 6HM5 | 8EL | 6AH4GT |
| 4Z | 35Z3 | 7AC | 6550 | 7Q | 6H6, GT, 12H6, 25Z6GT, 50AX6G, 50Y6GT, 117Z6GT | 8ES | 40A1, 40B2 |
| 5AB | 7Y4, 7Z4 | 7AG | 6AD6G, 6AF6G | 7R | 6J7, G, GT, 6K7, 12J7GT, 12K7GT, 1223 | 8ET | 6CA7, EL34/6CA7 |
| 5AC | 7A4/XXL, 7B4 | 7AK | 1LA6, 1LC6 | 7S | 5V6GT, 6DG6GT, 6EY6, 6EZ5, 6EZ6, 6F6, G, GT, 6G6G, GT, 6K6GT, 6L6, GB, GC, 6U6GT, GTY, 6V6, GT, GTA, 6W6GT, 6Y6GA, 7EY6, 9EF6, 12A6, 12EF6, 12EN6, 12L6GT, 12V6GT, 12W6GT, 17L6GT, 25L6GT, 25W6GT, 35L6-GT, 50L6GT, 1614, 5824, 5871, 5881, 5932, 7408, EL-37, KT-66, KT-88, 7581, A, 7751, 8417 | 8EX | 6308 |
| 5AD | 1LA4, 1LB4 | 7AO | 1LC5, 1LG5, 1LN5 | 7T | 6L7, 6P7G, 1612 | 8EY | 6352 |
| 5AG | 1LH4 | 7AP | 3Q5GT | 7V | 6Q7, GT, 6R7, 12Q7GT, 6118 | 8EZ | 3AW3 |
| 5AL | 35Y4 | 7AT | 1R5 | 7Z | 1A7GT | 8FF | 6BU5 |
| 5AP | 1A3 | 7AV | 1S4 | 8A | 6A8, G, GT, 12A8GT | 8FU | 6BD4, A |
| 5AW | 807, W, 5933, WA | 7AZ | 6SF7, 12SF7 | 8AC | 7AF7, 7F7, 7N7, 14AF7/XXD, 14F7 | 8G | 6C8G, 6F8G |
| 5AY | 6D4 | 7BA | 3S4, 3Q4, 3Z4 | 8AD | 6SA7GT, GTY, 12SA7GT | 8GB | 6BL4 |
| 5AZ | 1625 | 7BB | 3A4 | 8AE | 7R7, 14R7 | 8GC | 6BK4, A, 6BU4 |
| 5BO | OA2, WA, OB2, WA, OC2, 5651, WA, 6626, 6627 | 7BC | 3A5 | 8AL | 7Q7, 14Q7 | 8GD | 6CB5A, 6CL5, 6FN5 |
| 5BQ | 25DK4, 35W4, 36AM3, A, 50DC4 | 7BD | 3CE5, 3BC5, 4BC5, 4CE5, 6AG5, 6AJ5, 6AK5, 6AN5, 6BC5, 6CE5, 35C5, 408A, 5654, 5654/6AK5W/6096, 6028, 6186, 6186/6AG5WA, 6968, 9001, 9003 | 8AN | 50Y7GT | 8GH | 3B2 |
| 5BS | 6X4, WA, 12X4 | 7BE | 3B7 | 8AO | 117L7/M7GT | 8GQ | 6690 |
| 5BT | 6BQ6GA, 6CD6G, GA, 6DN6, 6EX6, 19BG6G, GA, 21EX6, GA, GB, 25CD6GB, 25DN6, 25EC6, 35CD6GA, 7867 | 7BF | 5J6, 6J6, A, WA, 19J6, 1216, 5844, 5964, 6045, 6099, 6101, 7244, A | 8B | 6N7, GT | 8GT | 6CM5 |
| 5CA | 5845 | 7BH | 2C21 | 8BD | 2C50, 2C52, 6AS7G, GA, GYB, 6BL7GT, GTA, 6BX7GT, 6DN7, 6EA7, 6EM7, 6GL7, 6SL7GT, WGT, 6SN7GTB, WGT, 6W4GTA, 10EG7, 10EM7, 12SL7GT, 12SN7GT, 13EM7, 15EA7, 5691, 5692, 5998A, 6080, 6082A, 6188, 6336A, 6394A, 6520, 6528, 7105, 7236 | 8GV | 6M3 |
| 5CB | 5722 | 7BJ | 6AN6 | 8BF | 7K7 | 8HC | 2B3 |
| 5CE | 6AB4, 6664 | 7BK | 3AU6, 3BA6, 4AU6, 4BA6, 6AH6, 6AK6, 6AU6, A, WB, 6BA6, 6BD6, 6FD6, 6HR6, 6HS6, 12AC6, 12AF6, 12AU6, 12BA6, 12BD6, 12BL6, 12CX6, 12CY6, 12DZ6, 12EA6, 12EK6, 12EZ6, 18FW6, 18GD6, 19HR6, 19HS6, 5749, 5749/6BA6W, 6660/6BA6, 7496, 7543, 8425, 8426 | 8BJ | 7W7 | 8HE | 6853 |
| 5D | 6Z4/84, 84/6Z4 | 7BN | 2D21 | 8BK | 6SG7, 6SH7, 12SG7, 12SH7 | 8HY | 7027, A |
| 5DE | 3DG4 | 7BQ | 6J4, WA, 7137, 7245 | 8BL | 7J7, 7S7 | 8JB | 6CK4 |
| 5L | 5AR4, 5AT4, 5CG4, 5V4G, GA, 5Z4, GT, GZ34 | 7BS | 9002 | | | 8JC | 6DQ5 |
| 5M | 6F5, GT, 12F5GT | 7BT | 3AV6, 4AV6, 4AY6, 6AT6, 6AQ6, 6AV6, 6BF6, 12AE6, A, 12AJ6, 12AT6, 12AV6, 12BF6, 12BK6, 12FK6, 12FM6, 12FT6, 18FV6, 18GE6 | | | 8JP | 6DZ7 |
| 5Q | 5X4GA, 5Y4GA, GT | 7BZ | 5AQ5, 6AQ5, A, 6BF5, 6DS5, 12AQ5, 19AQ5, 35B5, 50B5, 6005, 6005/6AQ5W/6095, 6095, 6096, 6669/6AQ5 | | | 8JX | 6GC6, 12GC6 |
| 5S | 6B4G | 7C | 6A7 | | | 8K | 6K8, 12K8 |
| 5T | 5AS4, A, 5AU4, 5AW4, 5AX4GT, 5AZ4, 5R4GY, GYA, GYB, 5T4, 5U4G, GA, GB, 5U4WG, 5V3, A, 5Y3GT, GTA, WGTA, 5931 | 7CH | 3BE6, 3BY6, 3CS6, 4BE6, 4CS6, 6BE6, 6BY6, 6CS6, 12AB6, 12AD6, 12AG6, 12BE6, 12CS6, 12EG6, 12FA6, 18FX6, 1217, 5750/6BE6W, 5750, 5915, A, 7032, 7036, 7502 | | | 8KB | 6FE5, 50FE5 |
| 5Y | 1N5GT | 7CK | 2E26, 6146, 6883, 6888, 6893 | | | 8KD | 5CU4 |
| 5Z | 1H5GT | 7CM | 3BZ6, 3CB6, 3CF6, 3DK6, 4BZ6, 4CB6, 4DE6, 4DK6, 4EW6, 4GM6, 4JK6, 4JL6, 5EW6, 5GM6, 5JK6, 5JL6, 6AS6, 6BH6, 6BJ6, 6BZ6, 6CB6A, 6CF6, 6DB6, 6DC6, 6DE6, 6DK6, 6EW6, 6GM6, 6JH6, 6JK6, 6JL6, 12AW6, 12BZ6, 12DK6, 15EW6, 5725, 5725/6AS6W, 6661/6BH6, 6662/6BJ6, 6676, 6954, 7056, 7732, 8084, 8136 | | | 8KG | 7591, A |
| 6AA | 7A5, 7C5, 14C5, 35A5, 50A5 | | | | | 8KM | 7994, 8185, 8186 |
| 6AB | 6SF5, 12SF5, 12SF5GT | | | | | 8KN | 7355 |
| 6AB8 | 6AB8 | | | | | 8KS | 5DJ4 |
| 6AD | 35Z5GT | | | | | 8KZ | 7995 |
| 6AE | 7B5 | | | | | 8LC | 8068 |
| 6AM | 6AL6, 6BQ6GTA, GTB, 6BW5, 6CU6, 6DJ6, 6DQ6A, B, 6GW6, 12BQ6GTA, GTB, 12CU6, 12DQ6A, B, 12GW6, 17BQ6GTB, 17DQ6, A, B, 17GW6, 25BQ6GA, GT, GTB, 25DQ6A | | | | | 8LD | 8070, 8319 |

TUBE TYPE BASING ARRANGEMENTS

| BASE | TYPE | BASE | TYPE | BASE | TYPE | BASE | TYPE |
|------|---|------|---|------|--|--------|---|
| 8V | 7A7, 7AG7, 7AK7, 7B7, 7C7, 7H7, 7L7, 7V7, 14A7, 14C7, 1231, 1273, 1280, 1284, 6145 | 9EN | 6CN7, 8CN7 | 9LG | 6CY7, 8CY7, 11CY7 | 12BU | 6AL11, 6G11, 10AL11, 12AL11, 12G11 |
| 8W | 7B6, 7C6, 14B6 | 9EP | 7898 | 9LP | 6EV7, 6FQ7, 6GU7, 8FQ7 | 12BW | 6J11 |
| 8X | 7B8 | 9EQ | 7721, 7722 | 9LQ | 6EQ7, 6KL8, 12EQ7, 12KL8, 20EQ7 | 12BY | 6K11, 6Q11, 6AV11 |
| 8Y | 6AG7 | 9ER | 6BJ8, 6BN8, 8BN8 | 9LS | 6EU7 | 12CA | 6M11 |
| 9A | 6AX7, 7AU7, 9AU7, 12AD7, 12AE7, 12AT7, WA, 12AU7, A, 12AV7, 12AX7, A, 12AY7, 12AZ7A, 12BH7, A, 12BZ7, 12DF7, 12DM7, 12DT7, 12DW7, 12FV7, 12U7, 5751, WA, 5814, A, WA, 5963, 5965A, 6189, 6189/12AU7WA, 6201, 6211A, 6679/12AT7, 6680/12AU7, 6681/12AX7, 6851, 6955, 7025A, 7058, 7062, 7316, 7318, 7489, 7490, 7492, 7494, 7728, 7729, 7730 | 9ES | 6CM7, 8CM7 | 9LT | 6ET7, 6KU8, 8ET7, 10KU8 | 12CN | 7984 |
| 9AC | 6S4A | 9EU | 6GC5, 12AB5, 6973, 7061 | 9LW | 3GS8, 3HS8, 4GS8, 4HS8, 6GS8, 6HS8 | 12CT | 8058 |
| 9AD | 5879 | 9EX | 6A8, 6BM8, 6DZ8, 6HC8, 8DZ8, 9DZ8, 12DZ8, 17HC8, 18DZ8, 50BM8, 35DZ8, 50FY8 | 9LX | 1H2 | 12DA | 6AG11, 6AY11, 30AG11 |
| 9AE | 5EA8, 5GH8, 5KD8, 5U8, 6AX8, 6EA8, 6GH8, A, 6GJ8, 6HL8, 6KD8, 6U8A, 9EA8, 9U8A, 19EA8, 6678/6U8, 7059, 7643, 7687, 7731, 8445 | 9FA | 5BR8, 5FV8, 6BR8A, 6FV8, A, 6JN8, 9BR8, 12EC8, 12JN8, 19HV8, 8446 | 9LY | 6GV8, 8GV8, 9GV8, 19KG8 | 12DE8 | 12DE8 |
| 9AG | 12B4A | 9FC | 4CX7, 6CH7, 6CX7 | 9LZ | 6GW8 | 12DG | 2AH2 |
| 9AH | 6V8, 19V8, 7500 | 9FE | 5BT8, 6BT8 | 9M | 6CA4 | 12DM | 6AR11, 11AR11 |
| 9AJ | 4BC8, 4BQ7A, 4BS8, 4BX8, 4BZ7, 4BZ8, 4ES8, 4KN8, 5BK7A, 5BQ7A, 5BZ7, 5ES8, 6AQ8, 6BC8, 6BK7A, B, 6BQ7A, 6BS8, 6BX8, 6BZ7, 6BZ8, 6CG7, 6GM8, 6DJ8, 6DT8, 6ES8, 6FW8, 6JK8, 6KN8, 7DJ8, 7ES8, 8CG7, 8JK8, 12DJ8, 12DT8, 17JK8, 6922, 7057, 7803, 8223, 8431 | 9FG | 3BU8, A, 3KF8, 6BU8, A, 6KF8 | 9ME | 18HB8, 35HB8 | 12DP | 6AS11, 6AF11, 6BD11, 15AF11, 15BD11 |
| 9AK | 5X8, 6X8, 9X8, 19X8 | 9FH | 12F8 | 9MP | 4HG8, 5HG8, 6GY8, 6HG8, 7HG8, 8HG8 | 12DQ | 1AD2 |
| 9AQ | 3BX6, 3BY7, 3EH7, 3EJ7, 4EH7, 4EJ7, 6BX6, 6EH7, 6EJ7, 6EL7, 6GK7, 12BX6, 13EC7 | 9FJ | 6BV8 | 9MQ | 6GM5 | 12DR | 6GV5, 6GY5, 16GY5, 17GV5, 21GY5 |
| 9AX | 6BC7, 6BJ7 | 9FK | 17H3 | 9MR | 6FA7 | 12DT | 8149 |
| 9AZ | 12AD5 | 9FN | 6BY8 | 9MS | 7701 | 12DU | 8150 |
| 9BA | 7227, 7499, 6DG7 | 9FR | 7233 | 9MX | 7719 | 12DZ | 6JZ8, 17JZ8 |
| 9BD | 6B3, 6V3A, 12B3 | 9FT | 6CH8 | 9MZ | 7737 | 12EA | 2DV4, 6DV4 |
| 9BF | 12BV7, 12BY7, 12DQ7, 12GN7, 6870, 7054, 7733, 8448 | 9FV | 6854 | 9NF | 7763 | 12EB | 6GA7 |
| 9BJ | 2HR8, 4HR8 | 9FX | 5CL8, A, 6CL8A, 9CL8, 19CL8A | 9NQ | 6HW8 | 12EJ | 6FM7, 13FM7, 15FM7 |
| 9BQ | 6BK5, 12BK5, 25BK5, 50BK5 | 9FZ | 5CM8, 6CM8, 6CS8, 6KZ8, 9KZ8 | 9NX | 6BF8 | 12EL | 1AJ2 |
| 9BS | 12DF5 | 9G | 5686 | 9NZ | 6GT5, 12GT5, 17GT5, 7868 | 12EN | 56R9 |
| 9BV | 6CL6, 6677/6CL6 | 9GA | 6HU6 | 9PA | 6JC8 | 12EO | 6FY7, 15FY7 |
| 9BX | 6AJ4, 6AM4, 6CR4 | 9GB | 6877 | 9PB | 7905 | 12ER | 6BA11 |
| 9CB | 6AF3, 6BR3, 12AF3, 12BR3, 17BR3, 25BR3 | 9GC | 12J8 | 9PG | 4KF8, 20EZ7 | 12ES | 6HD5, 6HJ5, 21HD5, 21HJ5, 28HD5, 30HD5, 30HJ5 |
| 9CF | 9BR7, 12BR7, 8447 | 9GE | 5CQ8, 6CQ8 | 9PJ | 8102 | 12EU | 8156 |
| 9CK | 5CM6, 6CM6, 6DW5, 12CM6, 12DW5 | 9GF | 5CG8, 5FG7, 6CG8, A, 6FG7, 6GD7, 9CG8A | 9PL | 8106 | 12EW | 2AS2 |
| 9CM | 50A1 | 9GJ | 5CR8, 6CR8 | 9PM | 3HM6, 3HT6, 3JC6, 3JD6, 4HM6, 4HT6, 4JC6, 4JD6, 6HM6, 6HT6, 6JC6, 6JD6 | 12EX | 3AT2 |
| 9CQ | EF86/6267 | 9GK | 6GK6, 16GK6 | 9PQ | 6JU8 | 12EY | 6HE5 |
| 9CV | 6BQ5, 6CW5, 6DY5, 8BQ5, 8CW5, 10BQ5, 12FB5, 15CW5, EL84/6BQ5, EL86, 30CW5, 7189, 7320 | 9GM | 6CU8 | 9PX | 7695, 7754 | 12EZ | 6BF11, 6T10, 17BF11 |
| 9CY | 5AM8, 6AM8, A, 6HJ8 | 9GR | 6DB5, 12DB5 | 9PU | 6HB6, 15HB6 | 12FB | 6HF5 |
| 9CZ | 12G8, 6350, 6463, 6840 | 9GS | 12AL8 | 9PV | 6KA8, 8KA8 | 12FC | 33GT7 |
| 9DA | 5AN8, 6AN8, A, 10C8, 12CT8, 7258, 7492, 8489 | 9GT | 12DK5 | 9PY | 8212 | 12FE | 6U10 |
| 9DC | 4BL8, 5KE8, 6BL8, 6KE8, 8A8, 9A8 | 9H | 5687, 6900, 7044, 7119, 7370 | 9PZ | 8233 | 12FM | 6T9 |
| 9DD | 6FC7, 7FC7 | 9HE | 6DC8 | 9QA | 6GJ7 | 12FN | 33GY7 |
| 9DJ | 6BW4, 12BW4 | 9HF | 6DE7, 6DR7, 6EW7, 6FD7, 6FR7, 10DE7, 10DR7, 10EW7, 10FD7, 10FR7, 13DE7, 13DR7, 13FD7, 13FR7, 19DE7, 19EW7 | 9QB | 8278 | 12FQ | 4HA7 |
| 9DS | 5AS8, 6AS8 | 9HK | 5BW8, 6BW8 | 9QD | 6GF7, 10GF7, 13GF7 | 60E3 | 60E3 |
| 9DT | 3A2 | 9HL | 6939 | 9QE | 6JA8, 10JA8 | 407A | 407A |
| 9DV | 6486A | 9HN | 5CZ5, 6CZ5, 6DT5, 6EM5, 6GB5, 8EM5, 12DT5, 13GB5, 25DT5, 27GB5, 28GB5 | 9QG | 6KM8 | FM1000 | FM1000 |
| 9DW | 5AT8, 6AT8, A | 9HP | 6AY3, A, 6BA3, 6BH3, 6BS3, 6DW4, 12AY3, 12BS3, 17AY3, 17BH3, 17BS3, 22BH3 | 9QH | 8278 | 1222 | 1222A |
| 9DX | 6AU8, A, 6AW8, A, 6BA8, A, 6BH8, 6CX8, 6EB8, 6GN8, 6HF8, 6HZ8, 6JE8, 6JL8, 6JT8, 6JV8, 6KR8, 6KS8, 6KV8, 6LB8, 8AU8, A, 8AW8A, 8BA8A, 8BH8, 8CX8, 8EB8, 8GN8, 8JE8, 8JL8, 8JT8, 8JV8, 8KS8, 10EB8, 10HF8, 10JT8, 10JY8, 10LB8, 11JE8, 11KV8, 7060, 7716 | 9HR | 12DL8, 12DV8 | 9QI | 5BC3 | 1236A | 1236A |
| 9DZ | 5AV8 | 9HV | 12EM6 | 9QJ | 6GJ5, 12GJ5, 17GJ5 | 1247 | 1247 |
| 9E | 5T8, 6T8A, 19C8, 19T8 | 9HX | 6DX8, 10DX8 | 9QK | 6JB6, 6JE6, 12JB6, 17JB6 | 5642 | 5642 |
| 9EC | 5B8 | 9HZ | 12DK7 | 9QL | 6GQ7, 19GQ7 | 5647 | 5647 |
| 9ED | 6AZ8 | 9JC | 12DW8 | 9QM | 6KT8 | 5702 | 5702, WA, WB |
| 9EF | 6CS7, 8CS7, 6DA7, 10DA7 | 9JF | 5EU8, 6EU8 | 9QN | 6QT8 | 5703 | 5703, WA, WB |
| 9EG | 5BE8, 5DH8, 6BE8, A | 9JG | 5EH8, 6EH8 | 9QO | 8358 | 5704 | 5704 |
| 9EJ | 6582A, 7001 | 9JH | 7150 | 9QP | 15KY8, 17LD8 | 5744 | 5744 |
| | | 9JL | 2DF4 | 9QR | 22JG6 | 5783 | 5783, 5787 |
| | | 9JT | 7199 | 9QS | 6LC8, 8LC8 | 5784 | 5784 |
| | | 9JU | 12DS7, A | 9QY | 17C8 | 5785 | 5785 |
| | | 9JX | 12DU7 | 9T | 17C8 | 5889 | 5889 |
| | | 9JY | 12DV7 | 9U | 1AU2, 1AU4, 1V2 | 6098 | 6098 |
| | | 9K | 7495 | 9V | 417A, 5842 | 6187 | 6187 |
| | | 9KA | 6EZ8, 19EZ8 | 9X | 5847 | 6418 | 6418 |
| | | 9KG | 4CM4, 6CM4 | 9Y | 1AX2, 1X2B | 6483 | 6483 |
| | | 9KH | 7239 | 10F | 6C9, 17C9A | 6611 | 6611 |
| | | 9KN | 6GV7, 7GV7 | 10G | 6J9 | 6612 | 6612 |
| | | 9KP | 6FH8 | 10H | 19Q9 | 6763 | 6763 |
| | | 9KR | 6FM8, 14GT8, 14JG8, 7724 | 12AQ | 2CW4, 2DS4, 6CW4, 13CW4, 7586, 8056, 8382, 8441, 8456 | 6872 | 6872 |
| | | 9KS | 7360 | 12AS | 7587, 8380 | 7077 | 7077 |
| | | 9KT | 12FQ8 | 12BA | 7688, 7689, 7690 | 7241 | 7241, 7242 |
| | | 9KU | 12FR8 | 12BF | 6B10, 8B10 | 7246 | 7246 |
| | | 9KV | 12FX8, A | 12BJ | 6GE5, 6GF5, 6HB5, 12GE5, 17GE5, 21HB5 | 7382 | 7382 |
| | | 9LC | 6GE8, 7734 | 12BL | 6AX3, 6BE3, 6BJ3, 12AX3, 12BE3, 12BJ3, 17AX3, 17BE3 | 7430 | 7430 |
| | | | | 12BM | 6FJ7 | 7561 | 7561 |
| | | | | 12BQ | 6C10, 6D10 | 7576 | 7576 |
| | | | | 12BR | 5AZ3 | 7720 | 7720 |
| | | | | 12BT | 6J10, 13J10 | 7768 | 7768 |
| | | | | | | 7841 | 7841 |

EUROPEAN--AMERICAN RECEIVING TUBE REPLACEMENT CHART

AMERICAN SUBSTITUTIONS FOR EUROPEAN TUBES

EUROPEAN/AMERICAN EXACT REPLACEMENTS FOR EUROPEAN TUBES

| European Type | American Type | Code* | European Type | American Type | Code* |
|---------------|---------------|-------|---------------|-------------------|-------|
| 1C1 | 1R5 | ER | EF93 | 6BA6 | ER |
| 1D13 | 1A3 | ER | EF94 | 6AU6 | ER |
| 1F2 | 1L4 | ER | EF95 | 6AK5 | ER |
| 1F3 | 1T4 | ER | EF96 | 6AG5 | ER |
| 1FD9 | 1S5 | ER | EF183 | 6EH7 | ER |
| 1P10 | 3S4 | ER | EF184 | 6EJ7 | ER |
| 1P11 | 3V4 | ER | EH90 | 6CS6 | ER |
| 6D2 | 6AL5 | ER | EK32 | 6A8/G/GT | NR† |
| 6L12 | 6AQ8 | ER | EK90 | 6BE6 | ER |
| 6P15 | 6BQ5 | ER | EL37 | 6L6GC | NR† |
| 8D4 | 6W7 | NR† | EL84 | 6BQ5 | ER |
| 9BR8 | 9U8A | NR† | EL86 | 6CW5 | ER |
| 13D2 | 6SN7GTB | ER | EL90 | 6AQ5 | ER |
| B36 | 12SN7GTA | ER | EL91 | 6AM5 | ER |
| B65 | 6SN7GTB | ER | EL180 | 12BY7A | ER |
| B152 | 12AT7 | ER | EZ35 | 6X5GT | ER |
| B309 | 12AT7 | ER | EZ81 | 6CA4 | ER |
| B329 | 12AU7 | ER | EZ90 | 6X4 | ER |
| B339 | 12AX7, 7025 | ER | GZ30 | 5Z4 | ER |
| B719 | 6AQ8 | NR† | GZ32 | 5V4GA | ER |
| BPMO4 | 6AQ5 | ER | GZ33 | 5U4GB | NR† |
| D2M9 | 6AL5 | ER | GZ34 | 5U4GB | NR† |
| D63 | 6H6 | NR† | H63 | 6F5/GT | ER |
| D77 | 6AL5 | ER | HAA91 | 12AL5 | ER |
| D152 | 6AL5 | ER | HABC80 | 19T8 | ER |
| DA90 | 1A3 | ER | HBC90 | 12AT6 | ER |
| DAC32 | 1H5GT | ER | HBC91 | 12AV6 | ER |
| DAF91 | 1S5 | ER | HD14 | 1H5GT | ER |
| DAF92 | 1U5 | ER | HD30 | 3B4 | ER |
| DCC90 | 3A5 | ER | HF93 | 12BA6 | ER |
| DD6 | 6AL5 | NR† | HF94 | 12AU6 | ER |
| DF33 | 1N5GT | ER | HK90 | 12BE6 | ER |
| DF62 | 1AD4 | ER | HL90 | 19AQ5 | ER |
| DF91 | 1T4 | ER | HL92 | 50C5 | ER |
| DF92 | 1L4 | ER | HMO4 | 6BE6 | ER |
| DF904 | 1U4 | ER | HY90 | 35W4 | ER |
| DH63 (M) | 6GT/G/GT | ER | KT32 | 25L6GT | NR† |
| DH76 | 12QT/GT | NR† | KT63 | 6F6G | NR† |
| DH77 | 6AT6 | NR† | KT66 | 6L6GC, 5881, 807* | NR† |
| DH81 | 7B6 | NR† | KT71 | 50L6GT | NR† |
| DH149 | 7C6 | ER | KTW61 | 6S7 | NR† |
| DH719 | 6T8A | ER | KTW63 | 6K7/G/GT | NR† |
| DK32 | 1A7GT | ER | KTZ63 | 6J7/GT | NR† |
| DK91 | 1R5 | ER | L63 | 6J5/GT | ER |
| DL29 | 3D6 | ER | L77 | 6C4 | ER |
| DL33 | 3Q5GT | ER | N14 | 1C5GT | ER |
| DL35 | 1C5GT | ER | N16 | 3Q5GT | ER |
| DL36 | 1Q5GT | ER | N17 | 3S4 | ER |
| DL91 | 1S4 | ER | N18 | 3Q4 | ER |
| DL92 | 3S4 | ER | N19 | 3V4 | ER |
| DL93 | 3A4 | ER | N77 | 6AL5 | NR† |
| DL94 | 3V4 | ER | N709 | 6BQ5 | ER |
| DL95 | 3Q4 | ER | N727 | 6AQ5 | ER |
| DL98 | 3B4 | ER | PCF82 | 9U8A | ER |
| DP61 | 6AK5 | ER | PMO4 | 6BA6 | ER |
| DY30 | 1B3GT | NR† | PMO5 | 6AK5 | NR* |
| DY80 | 1X2B | NR† | QEO6/50 | 807 | NR† |
| DY86 | 1H2 | NR† | QVO5/25 | 807 | NR† |
| DY87 | 1H2 | NR† | R19 | 1X2B | NR† |
| E90F | 6BH6 | ER | R52 | 5Z4 | ER |
| E91H | 6BY6 | NR† | T2MO5 | 6J6 | ER |
| EAA91 | 6AL5 | ER | U41 | 1B3GT | NR† |
| EABC80 | 6T8 | ER | U50 | 5Y3GT | ER |
| EB34 | 6H6 | NR† | U52 | 5U4GB | ER |
| EB91 | 6AL5 | ER | U70 | 6X5GT | NR† |
| EBC33 | 6R7 | NR† | U78 | 6X4 | ER |
| EBC90 | 6AT6 | NR† | U147 | 6X5GT | ER |
| EBC91 | 6AV6 | ER | U149 | 7Y4 | ER |
| EBF32 | 6B8 | NR† | U709 | 6CA4 | NR† |
| EC84 | 6AJ4 | ER | V2M70 | 6X4 | ER |
| EC90 | 6C4 | ER | W17 | 1T4 | ER |
| EC92 | 6AB4 | ER | W63 | 6K7/G/GT | NR† |
| EC94 | 6AF4, 6AF4A | ER | W76 | 12K7/GT | NR† |
| EC95 | 6ER5 | ER | W149 | 7B7 | ER |
| EC97 | 6FQ5A | NR† | W727 | 6BA6 | ER |
| ECC35 | 6SL7GT | NR† | X14 | 1A7GT | ER |
| ECC40 | 6N7/GT | NR† | X17 | 1R5 | ER |
| ECC81 | 12AT7 | ER | X63 (M) | 6A8/G/GT | NR† |
| ECC82 | 12AU7 | ER | X81 | 7S7 | NR† |
| ECC83 | 12AX7, 7025 | ER | X148 | 7S7 | ER |
| ECC84 | 6BQ7A | NR* | X727 | 6BE6 | ER |
| ECC85 | 6AQ8 | ER | XC95 | 2ER5 | ER |
| ECC88 | 6DJ8 | ER | XCC189 | 4ES8 | ER |
| ECC91 | 6J6 | ER | XL84 | 8BQ5 | ER |
| ECC180 | 6BQ7A | ER | XF183 | 3EH7 | ER |
| ECC189 | 6ES8 | ER | XF184 | 3EJ7 | ER |
| ECF82 | 6U8 | ER | YF183 | 4EH7 | ER |
| ED2 | 6AL5 | ER | YF184 | 4EJ7 | ER |
| EF37, EF37A | 6J7/GT | NR† | Z14 | 1N5GT | ER |
| EF39 | 6K7/G/GT | NR† | Z63 | 6J7/GT | ER |
| | | | ZD17 | 1S5 | ER |

| European Type | **European/ American | European Type | **European/ American | European Type | **European/ American |
|---------------|-------------------------|---------------|-------------------------|---------------|-------------------------|
| 1C2 | 1AC6 | EC97 | 6FY5 | N359 | 21A6 |
| 1FD1 | 1AH5 | ECC84 | 6CW7 | PABC80 | 9AK8 |
| 1P1 | 3C4 | ECC86 | 6CM8 | PC86 | 4CM4 |
| 6F12 | 6AM6 | ECC88 | 6DJ8 | PCC84 | 7AN7 |
| | | ECC89 | 6FC7 | PCC85 | 9AQ8 |
| 6F18 | 6EC7 | ECC189 | 6ES8 | PCC88 | 7DJ8 |
| 6L34 | 6AQ4 | ECF80 | 6BL8 | PCC89 | 7FC7 |
| 6LD3 | 6CV7 | ECF86 | 6HG8 | PCF80 | 9A8 |
| 6P9 | 6BM5 | ECH42 | 6C9 | PCF86 | 7HG8 |
| 7D9 | 6AM5 | ECH80 | 6AN7 | PCL82 | 16A8 |
| 7D10 | 6CH6 | ECH81 | 6AJ8 | PCL84 | 15DQ8 |
| 8D3 | 6AM6 | ECH83 | 6DS8 | PL36 | 25E5 |
| 8D5 | 6BR7 | ECL80 | 6AB8 | PL81 | 21A6 |
| 8D7 | 6BS7 | ECL82 | 6BM8 | PL82 | 16A5 |
| 9D6 | 6CQ6 | ECL84 | 6DX8 | PL83 | 15A6 |
| 9P9 | 9BM5 | EF41 | 6CJ5 | PL84 | 15CW5 |
| 17N8 | 17C8 | EF80 | 6BX6 | PMO7 | 6AM6 |
| 19D8 | 19AJ8 | EF81 | 6BH5 | PY80 | 19X3 |
| 19U3 | 19X3 | EF85 | 6BY7 | PY81 | 17Z3 |
| 30C1 | 8A8 | EF86 | 6CF8 | PY82 | 19Y3 |
| 30F5 | 7ED7 | EF86 | 6267 | R16 | 1T2 |
| 30L1 | 7AN7 | EF89 | 6DA6 | SP6 | 6AM6 |
| 30P4 | 25GF6 | EF89F | 6DG7 | U37 | 1T2 |
| 30P12 | 12FB5 | EF91 | 6AM6 | U43 | 6X2 |
| 62DDT | 6CV7 | EF92 | 6CG6 | U145 | 31A3 |
| 62VP | 6CJ5 | EL34 | 6CA7 | U150 | 6BT4 |
| 63T1 | 6AB8 | EL36 | 6CM5 | U151 | 6X2 |
| 64SPT | 6BX6 | EL38 | 6CN6 | U153 | 17Z3 |
| 65ME | 6BR5 | EL41 | 6CK5 | U154 | 19Y3 |
| 66KU | 6BT4 | EL80 | 6M5 | U191 | 19CS4 |
| 67PT | 6CK5 | EL81 | 6CJ6 | UABC80 | 28AK8 |
| 141TH | 14K7 | EL83 | 6CK6 | UAF42 | 12S7 |
| 171DDP | 17N8 | EL85 | 6BN5 | UBC41 | 14L7 |
| 311SU | 31A3 | EL86 | 6CW5 | UBF80 | 17N8, 17C8 |
| 451PT | 45A5 | EL91 | 6AM5 | UC92 | 9AB4 |
| B319 | 7AN7 | EL95 | 6DL5 | UCC85 | 26AQ8 |
| BF61 | 6CK5 | EL821 | 6CH6 | UCH42 | 14K7 |
| DAF96 | 1AH5 | EQ80 | 6BE7 | UCH81 | 19AJ8, 19D8 |
| DC80 | 1E3 | EY51 | 6X2 | UCL82 | 50BM8 |
| DF96 | 1AJ4 | EY80 | 6U3 | UF41 | 12AC5 |
| DF97 | 1AN5 | EY81 | 6R3 | UF89 | 12DA6 |
| DH150 | 6CV7 | EY82 | 6N3 | UL41 | 45A5 |
| DH719 | 6AK8 | EY86 | 6S2 | UL84 | 45B5 |
| DK92 | 1AC6 | EY87 | 6S2A | UQ80 | 12BE7 |
| DK96 | 1AB6 | EY88 | 6AL3 | UY41 | 31A3 |
| DL96 | 3C4 | EZ40 | 6BT4 | UY85 | 38A3 |
| EABC80 | 6AK8 | EZ80 | 6V4 | V61 | 6BT4 |
| EAF42 | 6CT7 | EZ91 | 6AV4 | VP6 | 6CQ6 |
| EBC41 | 6CV7 | GZ34 | 5AR4 | WD142 | 12S7 |
| EBC80 | 6BD7 | HCH81 | 12AJ8 | WD709 | 6N8 |
| EBC81 | 6BD7A | HL94 | 30A5 | X18 | 1AC6 |
| EBF80 | 6N8 | LN152 | 6AB8 | X20 | 1AC6 |
| EBF81 | 6AD8 | N78 | 6BJ5 | X79 | 6AE8 |
| EBF83 | 6DR8 | N142 | 45A5 | X719 | 6AJ8 |
| EBF89 | 6DC8 | N144 | 6AM5 | Z77 | 6AM6 |
| EC80 | 6Q4 | N150 | 6CK5 | Z152 | 6BX6 |
| EC81 | 6R4 | N152 | 21A6 | Z719 | 6BX6 |
| EC86 | 6CM4 | N153 | 15A6 | Z729 | EF86 |
| EC91 | 6AQ4 | N309 | 15A6 | ZD152 | 6N8 |
| EC93 | 6BS4 | N329 | 16A5 | | |

*—Basing Differs. †—Heater Characteristics Differ. ‡—Electrical Characteristics Differ.

**—The suggested replacements are principally European manufactured tubes imported for sale in this country.

*—ER—Exact Replacement.
NR—Near Replacement.

Types coded NR may require changes in circuit wiring due to differences in basing and electrical characteristics as indicated by the accompanying qualifying notes. Suggested replacements coded ER compare identically with listed European types with respect to electrical characteristics, the type bases used and basing connections. The maximum ratings of suggested replacements compare with those of the European tubes; however, the differences between some types may be of significance in certain applications. Some types may also be especially controlled for particular characteristics.

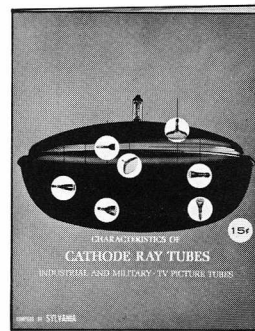
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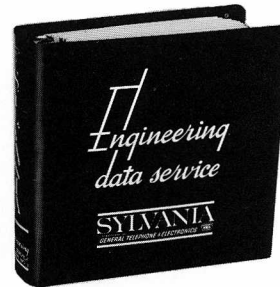
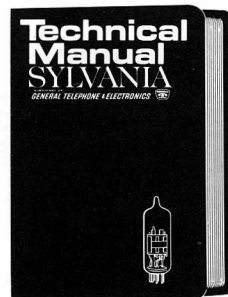
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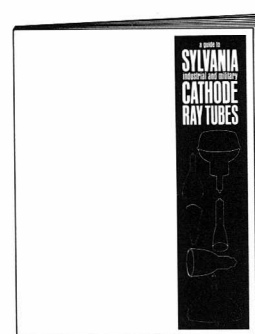
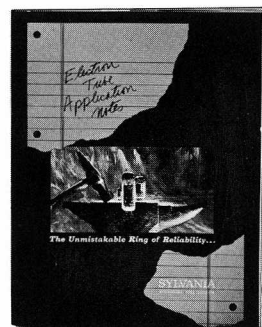
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