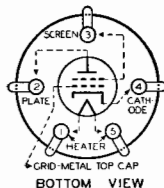




Type 36

RADIO-FREQUENCY AMPLIFIER



The 36 is a heater-cathode type of screen grid tube intended for use as a radio-frequency amplifier, intermediate-frequency amplifier, and detector. The relatively low heater current of this type

make it suitable for automobile receivers and for power-line-operated sets, particularly those with a series-heater arrangement.

CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.).....	6.3	Volts
HEATER CURRENT.....	0.3	Ampere
PLATE VOLTAGE.....	100 135 180 250 max.	Volts
SCREEN VOLTAGE.....	55 67.5 90 max. 90 max.	Volts
GRID VOLTAGE.....	-1.5 -1.5 -3 -3	Volts
PLATE CURRENT.....	1.8 2.8 3.1 3.2	Milliamperes
SCREEN CURRENT.....	— — — 1.7 max.	Milliamperes
PLATE RESISTANCE.....	0.55 0.475 0.5 0.55	Megohm
AMPLIFICATION FACTOR... ..	470 475 525 595	
MUTUAL CONDUCTANCE... ..	850 1000 1050 1080	Micromhos
GRID-PLATE CAPACITANCE (With shield-can). ..	0.007 max.	μf
INPUT CAPACITANCE.....	3.7	μf
OUTPUT CAPACITANCE.....	9.2	μf
BULB (For dimensions, see Page 151, Fig. 7).....		ST-12
CAP.....		Small Metal
BASE.....		Small 5-Pin

INSTALLATION

The **base** pins of the 36 fit the standard five-contact socket which may be installed to hold the tube in any position.

For **heater** operation and **cathode** connection, refer to INSTALLATION for type 6A7.

For **screen voltage** and **shielding** refer to INSTALLATION for type 35.

APPLICATION

As a **radio-frequency amplifier**, the 36 should be operated as shown under CHARACTERISTICS. Neither the plate nor the screen voltage is critical. In general, properly designed radio-frequency transformers are preferable to interstage-coupling impedances, especially in cases where a high impedance B-supply may cause oscillation below radio frequencies.

As a **detector**, the 36 may be operated either with grid leak and condenser or with grid bias. For grid-bias detection, suitable operating conditions are: Plate-supply voltage, 180 volts applied through a plate-coupling resistor of 0.25 megohm or an equivalent impedance; screen voltage, 67.5 volts; and negative grid bias, 6 volts (approx.) so adjusted that a plate current of 0.1 milliampere is obtained with no input signal. When

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grid leak and condenser detection is employed, a plate voltage of 135 volts applied through a plate-coupling resistor of 0.25 megohm or an equivalent impedance together with a screen voltage up to 45 volts will be satisfactory. A grid leak of 2 to 5 megohms and a grid condenser of 0.00025 μf will be suitable.

