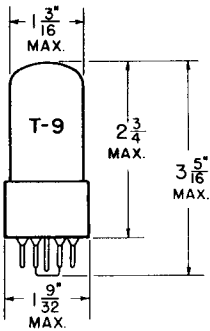


TUNG-SOL

DOUBLE DIODE-TRIODE



GLASS BULB

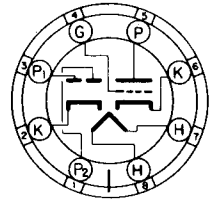
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 300 MA.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

INTERMEDIATE SHELL  
8 PIN OCTAL  
8CK

THE 6Aq7GT COMBINES TWO HIGH PERVEANCE DIODES AND A HIGH-MU TRIODE WITH SEPARATE CATHODES FOR THE TRIODE AND DOUBLE DIODE SECTIONS. IT IS DESIGNED FOR USE AS A SECOND DETECTOR AND FIRST AUDIO AMPLIFIER IN CIRCUITS WHERE THE DIODE AND TRIODE CATHODES ARE SEPARATE.

DIRECT INTERELECTRODE CAPACITANCES

WITH CLOSE FITTING EXTERNAL SHIELD CONNECTED TO CATHODE

GRID TO TRIODE PLATE: (G TO P)	3	μf
GRID TO TRIODE CATHODE: (G TO K)	2.8	μf
TRIODE PLATE TO TRIODE CATHODE: (P TO K)	3.2	μf
GRID TO DIODE CATHODE: (G TO H) MAX. <sup>A</sup>	0.25	μf
DIODE PLATE 1 TO DIODE CATHODE: (1P TO H)	2.2	μf
DIODE PLATE 2 TO DIODE CATHODE: (2P TO H)	2.4	μf
DIODE PLATE 1 TO DIODE PLATE 2: (1P TO 2P)	0.5	μf

<sup>A</sup> SHIELD GROUNDED

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD MB-210

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM POSITIVE DC GRID VOLTAGE	0	VOLTS
MAXIMUM PLATE DISSIPATION	1	WATT
DIODE OPERATION CURRENT PER PLATE	0.9	MA.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER - TRIODE UNIT

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	300	MA.
PLATE VOLTAGE	250	VOLTS
GRID VOLTAGE	-2	VOLTS
PLATE RESISTANCE (APPROX.)	44 000	OHMS
TRANSCONDUCTANCE	1 600	μMHOS
AMPLIFICATION FACTOR	70	
PLATE CURRENT	2.3	MA.

PLATE  
2239  
SEPT. 1  
1949

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

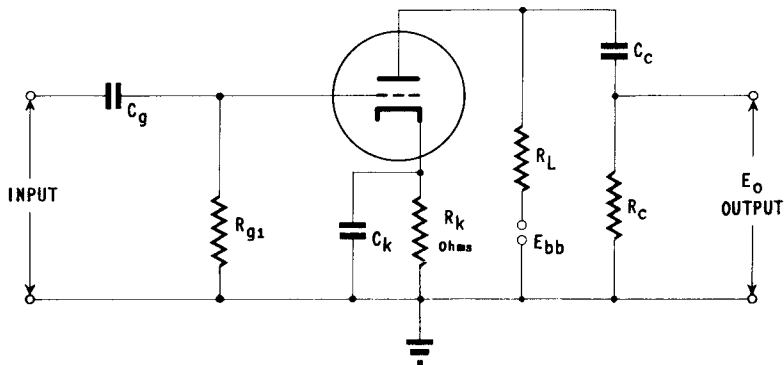
## RESISTANCE COUPLED AMPLIFIER

$R_1$ MEG.	$R_{g1}$ MEG.	$R_c$ MEG.	$E_{bb} = 90$ VOLTS			$E_{bb} = 180$ VOLTS			$E_{bb} = 300$ VOLTS		
			$R_k$	GAIN	$E_o$	$R_k$	GAIN	$E_o$	$R_k$	GAIN	$E_o$
0.10	A	0.10	4300	21	6.0	2200	27	20	1800	30	36
0.10	A	0.24	4700	25	7.5	2400	32	26	2200	34	49
0.24	A	0.24	7100	28	8.5	4300	36	26	3600	38	47
0.24	A	0.51	7800	32	11	4700	40	30	3900	42	56
0.51	A	1.0	11500	33	10	7500	42	28	6200	45	51
0.51	A	1.0	12500	38	12	8200	45	35	6800	48	60
0.24	10	0.24	---	32	5.0	----	40	19	----	43	38
0.24	10	0.51	---	36	7.0	----	45	25	----	49	48
0.51	10	0.51	---	37	6.5	----	47	23	----	50	43
0.51	10	1.0	---	40	9.5	----	49	28	----	53	53

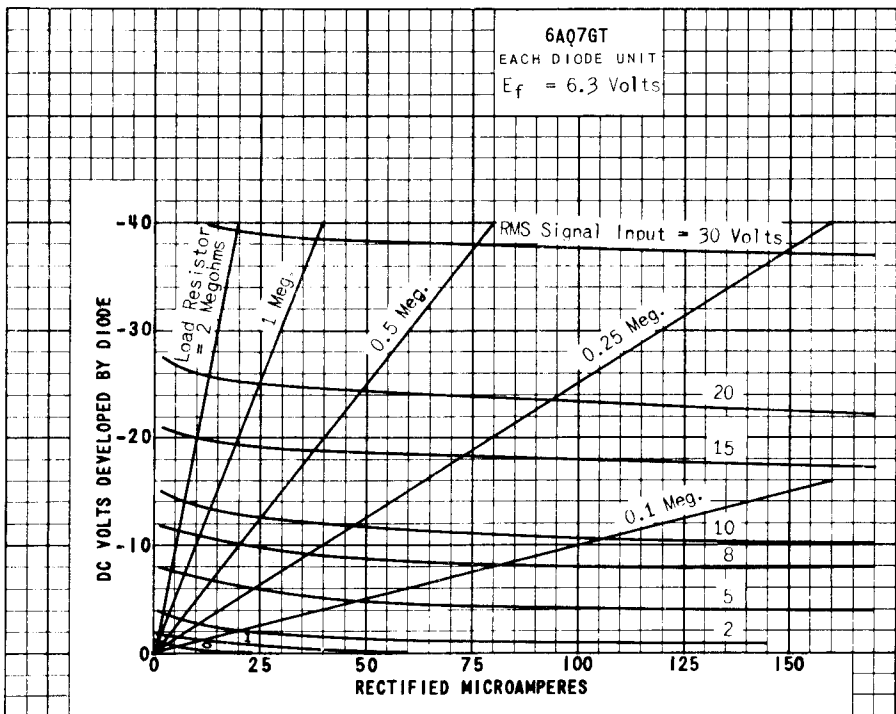
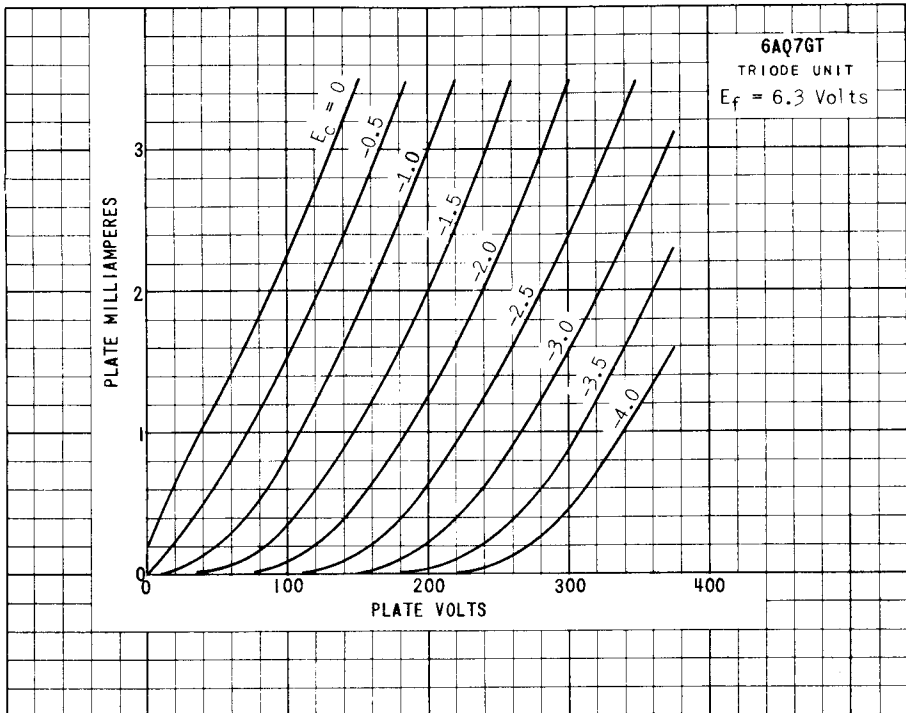
A VALUE OF  $R_{g1}$  IS NOT CRITICAL.

GAIN MEASURED AT  $E_o = 2.0$  VOLTS RMS OUTPUT.

$E_o$  IS RMS OUTPUT FOR 5% TOTAL HARMONIC DISTORTION.



NOTE: COUPLING CAPACITORS  $C_g$  AND  $C_c$  SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE.  $R_k$  SHOULD BE ADEQUATELY BY-PASSED BY CAPACITOR  $C_k$ .



PRINTED IN U. S. A.

PLATE  
2241  
SEPT. 1  
1949