

## TUNG-SOL

## TRIPLE-DIODE TRIODE

MINIATURE TYPE

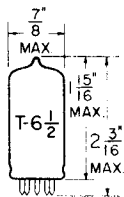
COATED UNIPOTENTIAL CATHODES

HEATER

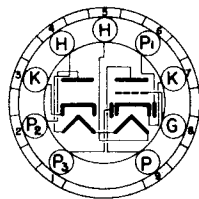
6.3 VOLTS 450 MA.

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

SMALL BUTTON  
9 PIN BASE

THE 6T8 COMPRISES THREE HIGH PERVEANCE DIODES AND A HIGH-MU TRIODE IN ONE ENVELOPE WITH THE 9-PIN MINIATURE CONSTRUCTION. ONE OF THE THREE DIODE PLATES HAS AN INDEPENDENT CATHODE PROVIDING SATISFACTORY OPERATION IN BALANCED LOW IMPEDANCE DETECTOR CIRCUITS. THIS TUBE STRUCTURE PERMITS THE CONSTRUCTION OF AM/FM RECEIVERS WITH A MINIMUM OF SWITCHING.

## DIRECT INTERELECTRODE CAPACITANCES - APPROX.

WITH NO EXTERNAL SHIELD

GRID TO EACH DIODE PLATE (MAX.)	0.035	$\mu\text{mf}$
DIODE #1 INPUT: $P_1$ TO (H+K)	3.8	$\mu\text{mf}$
DIODE #2 INPUT: $P_2$ TO (H+K)	4.5	$\mu\text{mf}$
DIODE #3 INPUT: $P_3$ TO (H+K)	3.8	$\mu\text{mf}$
DIODE CATHODE TO ALL: K TO (H+K+ $P_1$ + $P_2$ + $P_3$ +P+G)	8.5	$\mu\text{mf}$

## RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-310

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM POSITIVE DC GRID VOLTAGE	0	VOLTS
MAXIMUM DIODE CURRENT EACH PLATE FOR CONTINUOUS OPERATION	5	MA.

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS  $A_1$  AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	450	450	MA.
PLATE VOLTAGE	100	250	VOLTS
GRID VOLTAGE	-1	-3	VOLTS
PLATE CURRENT	0.8	1	MA.
PLATE RESISTANCE	54 000	58 000	OHMS
TRANSCONDUCTANCE	1 300	1 200	$\mu\text{MHOS}$
AMPLIFICATION FACTOR	70	70	
AVERAGE DIODE CURRENT WITH 5 VOLTS DC APPLIED	20	20	MA.

ONE DIODE HAS A SEPARATE CATHODE, THE OTHER CATHODE IS COMMON TO TWO DIODES AND THE TRIODE UNIT.

IT IS RECOMMENDED THAT DIODE #2 (PIN 2) AND DIODE #3 (PIN 1) BE USED IN A RATIO-DETECTOR CIRCUIT FOR FM.

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→ INDICATES A CHANGE OR ADDITION

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CONTINUED FROM PRECEDING PAGE

## RESISTANCE COUPLED AMPLIFIER

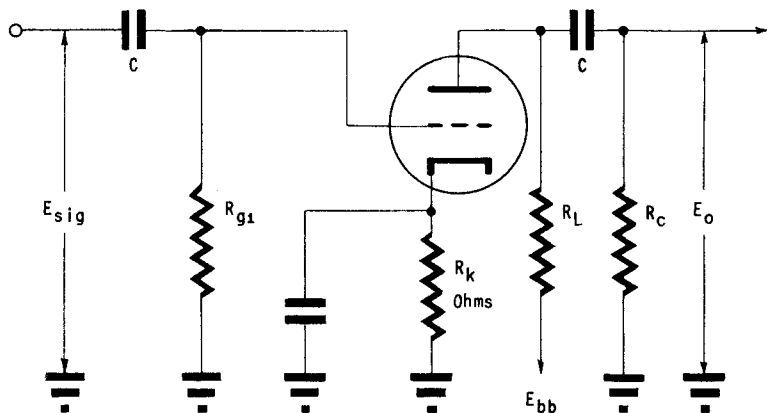
R1 MEG.	Rg1 MEG.	Rc MEG.	Ebb = 90 VOLTS			Ebb = 180 VOLTS			Ebb = 300 VOLTS		
			Rk	GAIN	Eo	Rk	GAIN	Eo	Rk	GAIN	Eo
0.10	A	0.10	5700	21	7	2400	29	18	1800	33	35
0.10	A	0.24	6100	26	9	2700	34	23	2000	38	42
0.24	A	0.24	9100	30	10	4300	40	24	3000	44	43
0.24	A	0.51	10000	34	13	4700	45	31	3300	49	52
0.51	A	0.51	15000	37	14	7500	47	28	5600	51	50
0.51	A	1	16000	40	16	8200	50	35	6200	55	60
0.24	10	0.24	---	31	5	---	44	19	---	48	40
0.24	10	0.51	---	37	7	---	49	25	---	52	52
0.51	10	0.51	---	39	7.5	---	51	22	---	54	44
0.51	10	1	---	42	10	---	54	28	---	58	56

A VALUE OF Rg1 IS NOT CRITICAL.

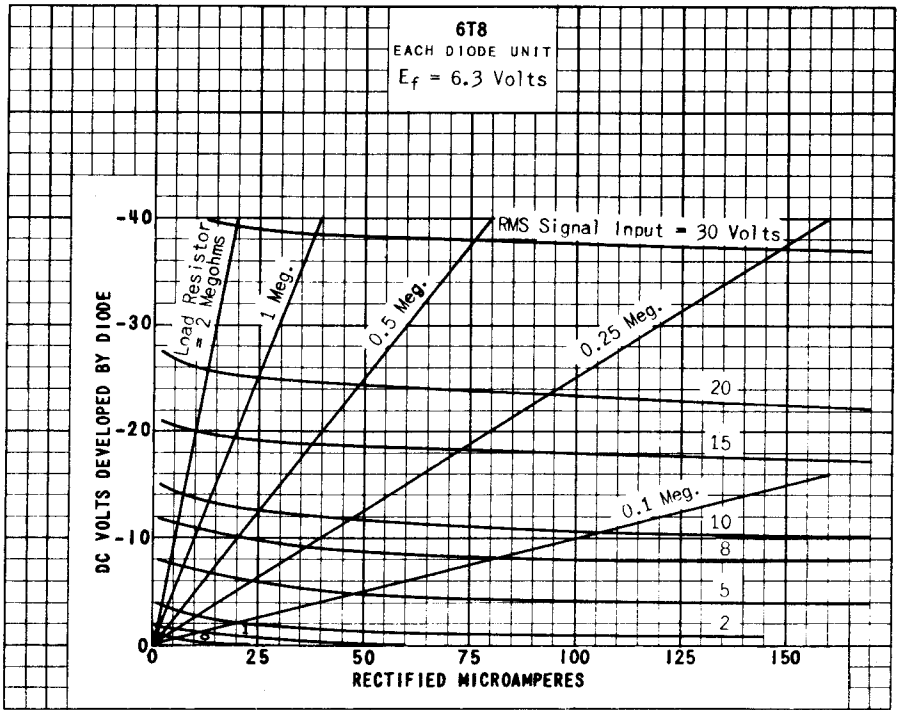
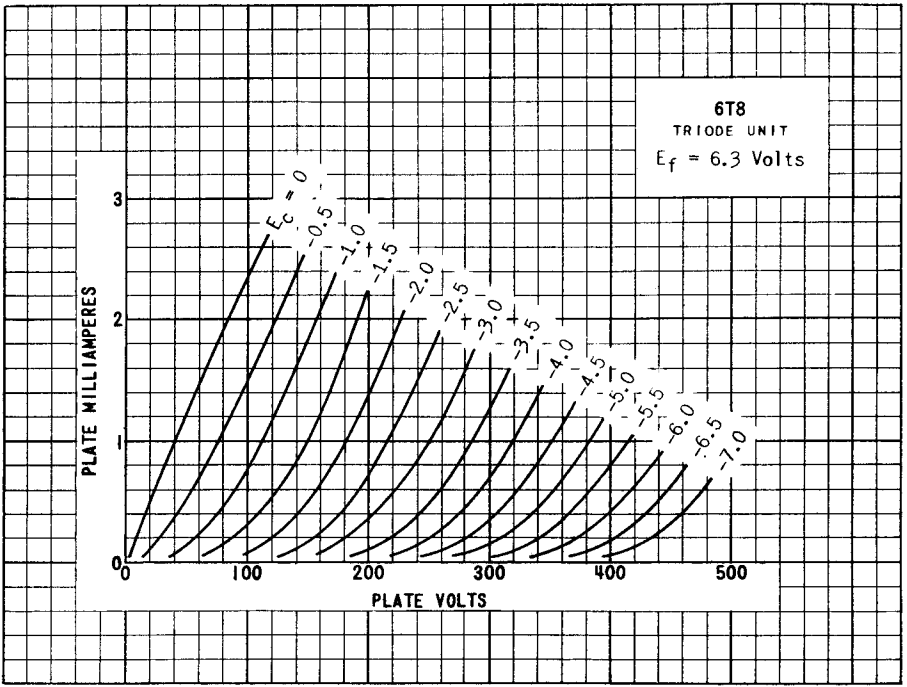
Rk TAKEN TO NEAREST RVA VALUE FOR EACH CASE INSTEAD OF ABSOLUTE OPTIMUM VALUE.

Eo IS RMS OUTPUT AT 5% TOTAL HARMONIC DISTORTION.

GAIN MEASURED AT Eo = 2.0 VOLTS RMS OUTPUT.



NOTE: COUPLING CAPACITORS (C) SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE. Rk SHOULD BE ADEQUATELY BY-PASSED.



PRINTED IN U. S. A.

PLATE 1891  
OCT. 1, 1947