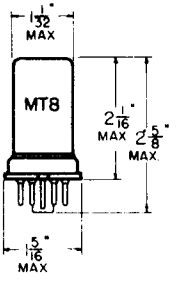
TUNG-SOL

DOUBLE-DIODE TRIODE

6SQ7



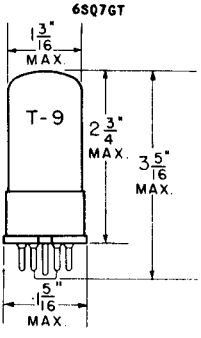
METAL SHELL

COATED UNIPOTENTIAL CATHODE

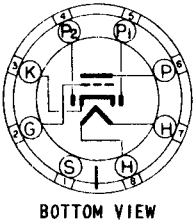
HEATER
6.3 VOLTS 300 MA.
AC OR DC

ANY MOUNTING POSITION

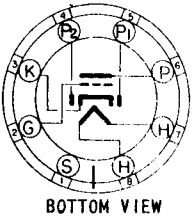
6SQ7GT



GLASS BULB



BOTTOM VIEW
SMALL WAFER
8-PIN OCTAL



BOTTOM VIEW
SMALL WAFER
8-PIN OCTAL
METAL SLEEVE

THE 6SQ7 AND 6SQ7GT COMBINE TWO DIODE UNITS AND A HIGH-MU TRIODE IN A SINGLE ENVELOPE. EACH SECTION USES A COMMON CATHODE. IT IS INTENDED FOR SERVICE AS A COMBINED DETECTOR, AVC SOURCE, AND HIGH GAIN AUDIO AMPLIFIER.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

	6SQ7[A]	6SQ7GT[B]	
GRID TO PLATE: (G TO P)	1.6	1.8	μμf
INPUT: G TO (H + K)	3.2	4.2	μμf
OUTPUT: P TO (H + K)	3.0	3.4	μμf

[A] WITH SHELL CONNECTED TO CATHODE.

[B] WITH NO EXTERNAL SHIELD.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MINIMUM DIODE CURRENT EACH PLATE WITH 10 VOLTS APPLIED	0.8	MA.
MAXIMUM DIODE CURRENT EACH PLATE FOR CONTINUOUS OPERATION	1.0	MA.

PLATE 1925
DEC. 1, 1947

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE OR ADDITION.

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER - TRIODE UNIT

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	300	300	MA.
PLATE VOLTAGE	100	250	VOLTS
GRID VOLTAGE	-1	-2	VOLTS
PLATE CURRENT	0.4	0.9	MA.
PLATE RESISTANCE	110 000	91 000	OHMS
TRANSCONDUCTANCE	900	1 100	μMHOS
AMPLIFICATION FACTOR	100	100	

DIODE UNITS - TWO

THE TWO DIODE PLATES ARE PLACED AROUND THE CATHODE AND ARE INDEPENDENT OF THE TRIODE UNIT EXCEPT FOR THE COMMON CATHODE.

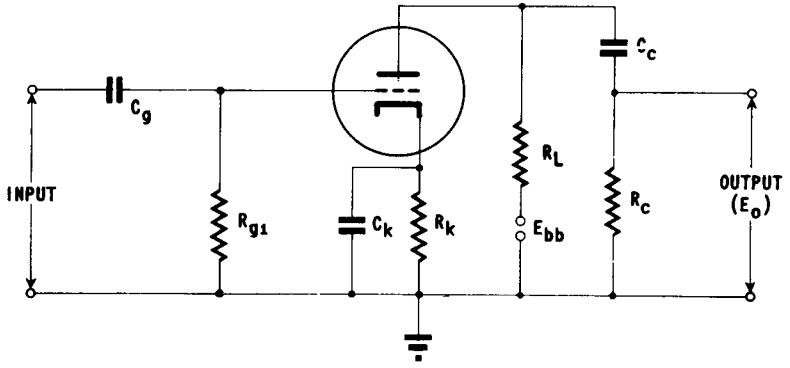
SIMILIAR TYPE REFERENCES: Ratings and characteristics identical to 7B6.

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	22	5.0	2400	29	15	2000	31	28
0.10	A	0.24	4700	27	7.0	2700	35	20	2200	38	37
0.24	A	0.24	7500	31	7.5	4300	42	20	3300	46	36
0.24	A	0.51	8200	40	10	4700	50	26	3900	52	50
0.51	A	0.51	13000	39	9.5	7500	53	24	5600	58	47
0.51	A	1.0	15000	43	11	8200	58	31	6200	62	56
0.24	10	0.24	---	39	4.5	---	45	19	---	49	38
0.24	10	0.51	---	45	6.5	---	52	24	---	57	48
0.51	10	0.51	---	48	7.0	---	59	22	---	62	42
0.51	10	1.0	---	52	8.5	---	62	25	---	66	55

[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.

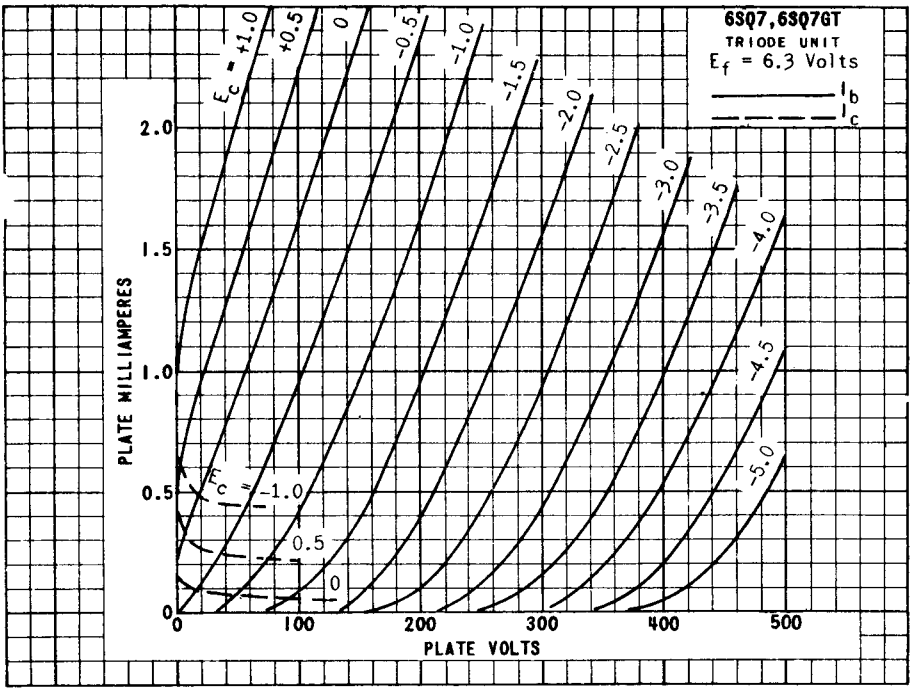


NOTE: COUPLING CAPACITORS C_g AND C_c SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE. R_k SHOULD BE ADEQUATELY BY-PASSED BY CAPACITOR C_k.

PLATE 1926

DEC. 1, 1947

→ INDICATES A CHANGE OR ADDITION



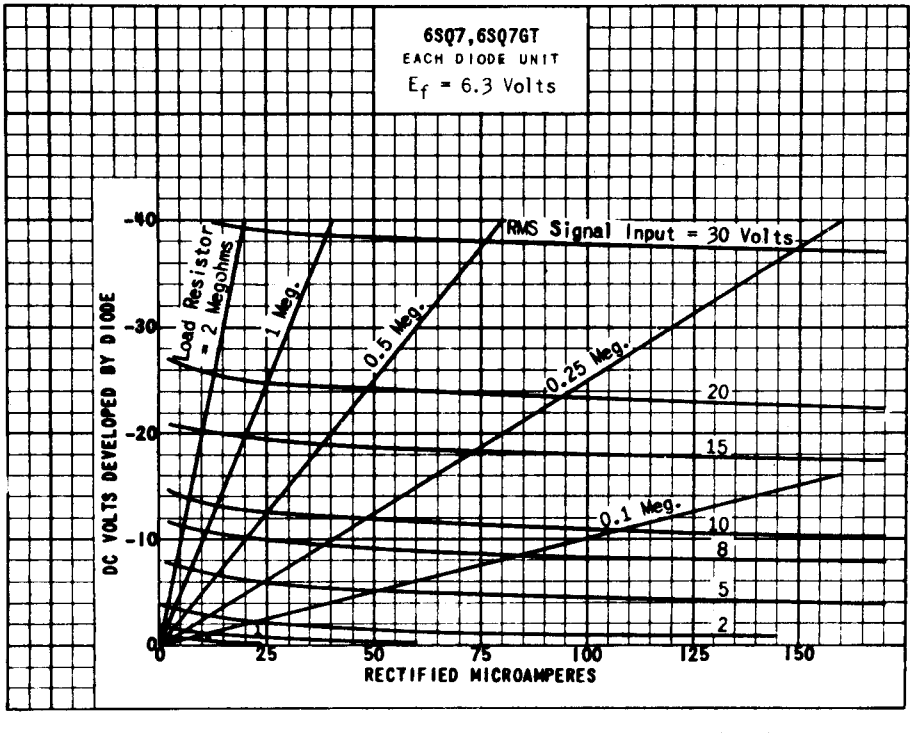
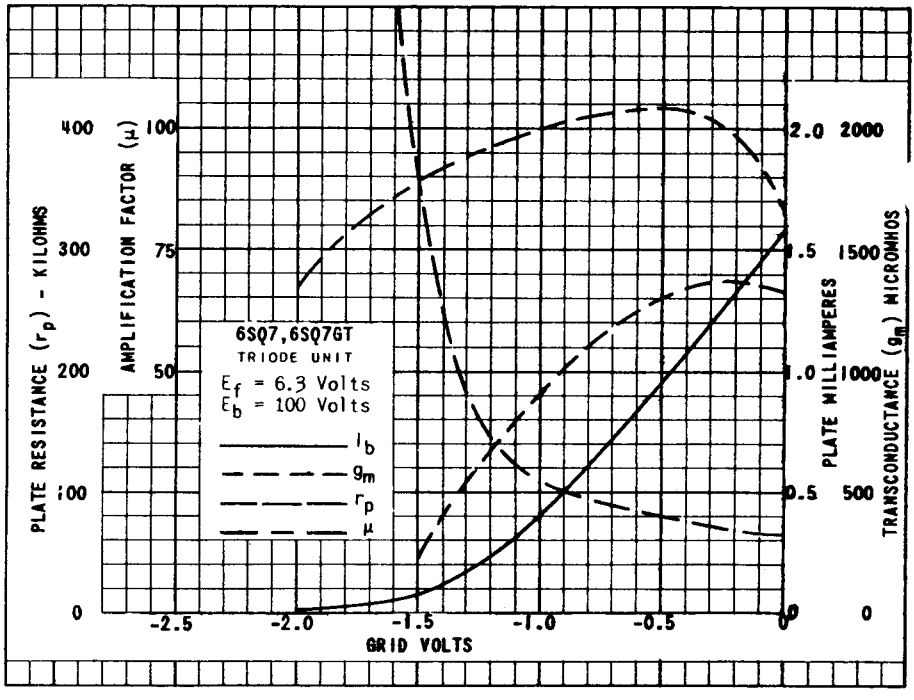


PLATE 1967
FEB. 2, 1948

6SQ7, 6SQ7GT



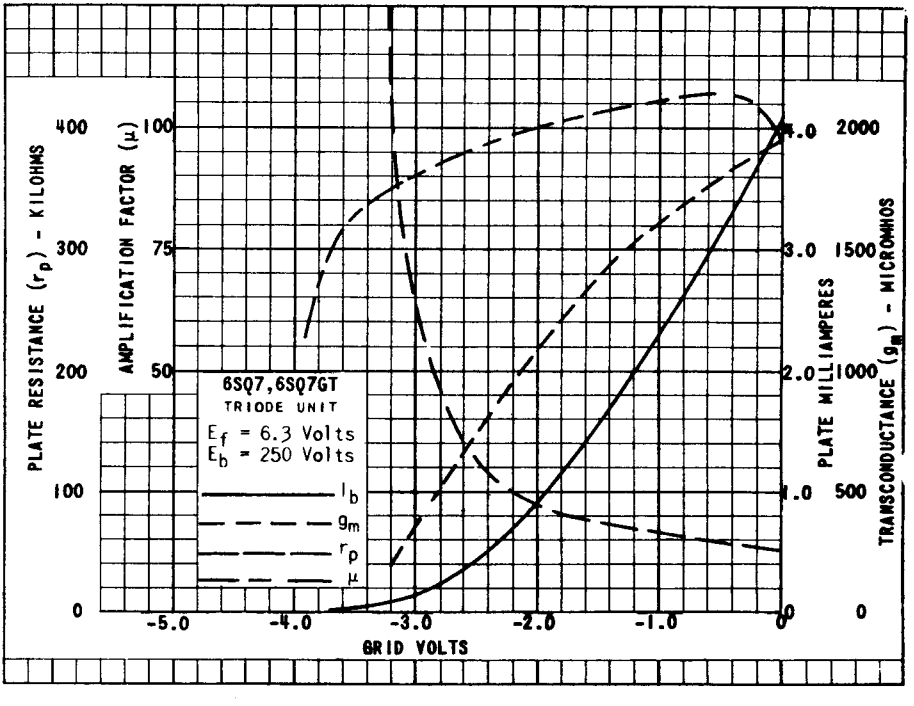


PLATE
1968
FEB. 2
1948