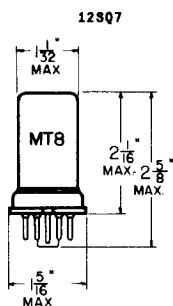
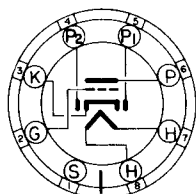


TUNG-SOL

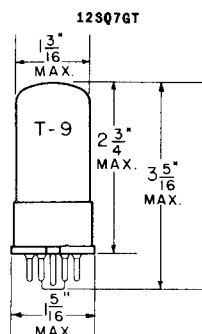
DOUBLE-DIODE TRIODE



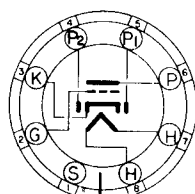
METAL SHELL



BOTTOM VIEW

SMALL WAFER
8-PIN OCTAL

GLASS BULB



BOTTOM VIEW

SMALL WAFER
8-PIN OCTAL
METAL SLEEVE

COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 150 MA.

AC OR DC

ANY MOUNTING POSITION

THE 12SQ7 AND 12SQ7GT 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.

	12SQ7 ^A	12SQ7GT ^B	
GRID TO PLATE: (G TO P)	1.6	1.8	μuf
INPUT: G TO (H + K)	3.2	4.2	μuf
OUTPUT: P TO (H + K)	3.0	3.4	μuf

^A WITH SHELL CONNECTED TO CATHODE.^B WITH NO EXTERNAL SHIELD.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

HEATER VOLTAGE	12.6	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.

→ INDICATES A CHANGE OR ADDITION.

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER - TRIODE UNIT

HEATER VOLTAGE	12.6	12.6	VOLTS
HEATER CURRENT	150	150	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.

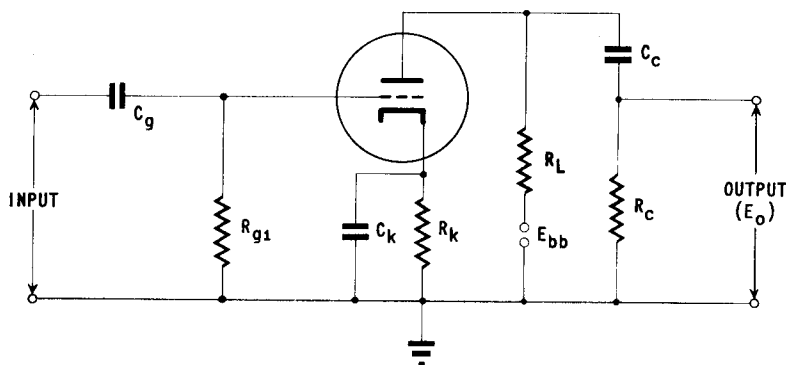
SIMILAR TYPE REFERENCE: Ratings and characteristics identical to 148B.

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.

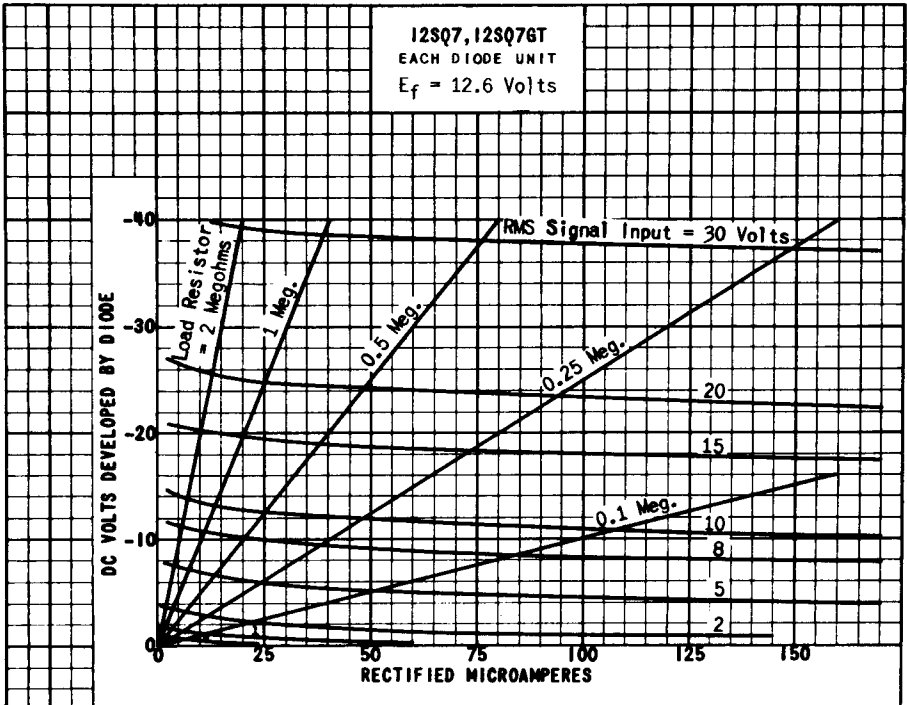
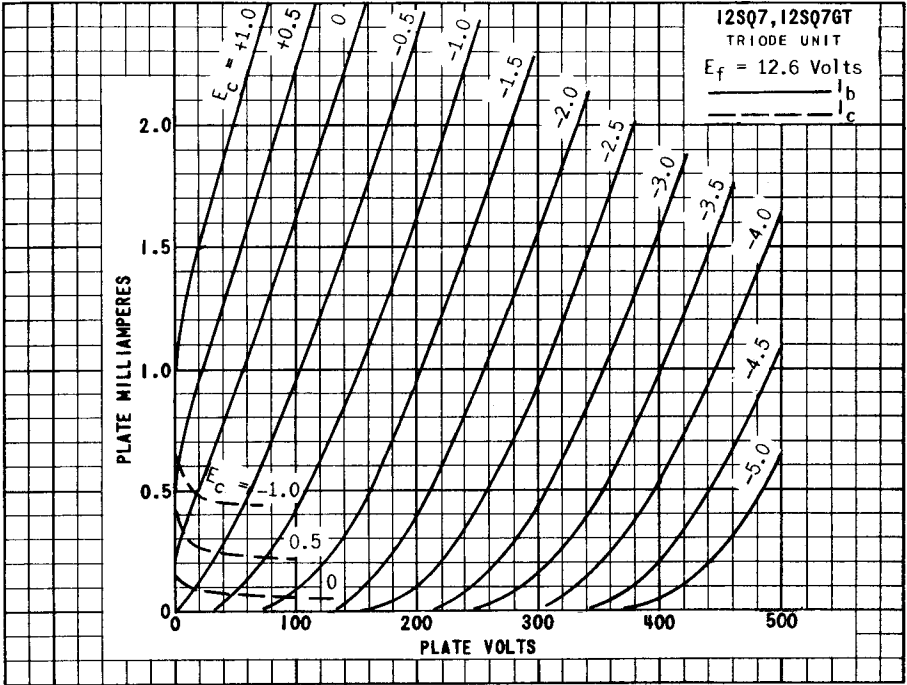


NOTE: COUPLING CAPACITORS C_g AND C_c SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE. R_k SHOULD BE ADEQUATELY BY-PASSED BY CAPACITOR C_k.

→ INDICATES A CHANGE OR ADDITION

PLATE
1935
DEC. 1,
1947

12SQ7, 12SQ7GT



12SQ7, 12SQ7GT

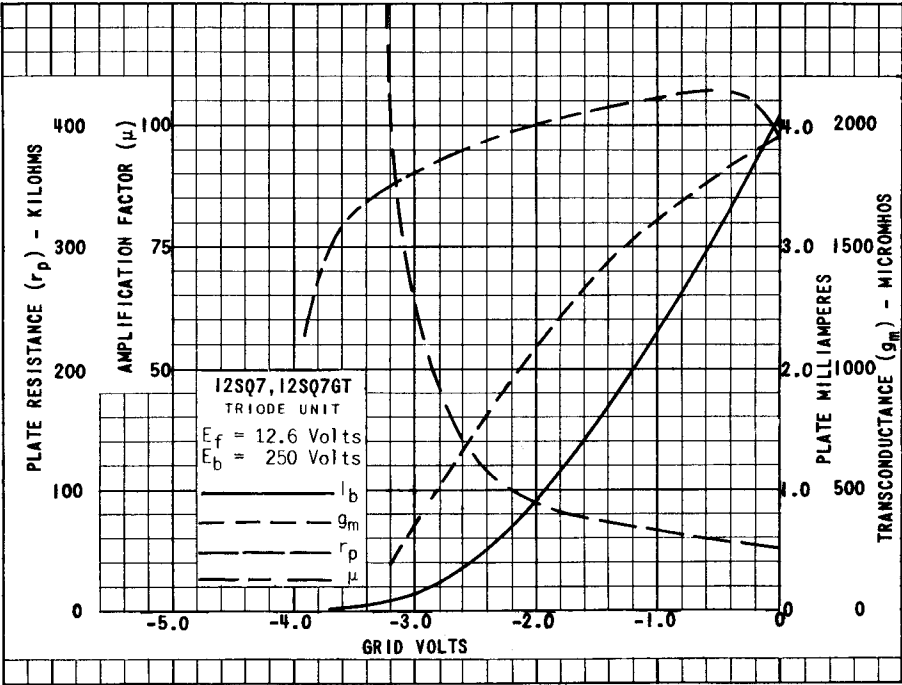
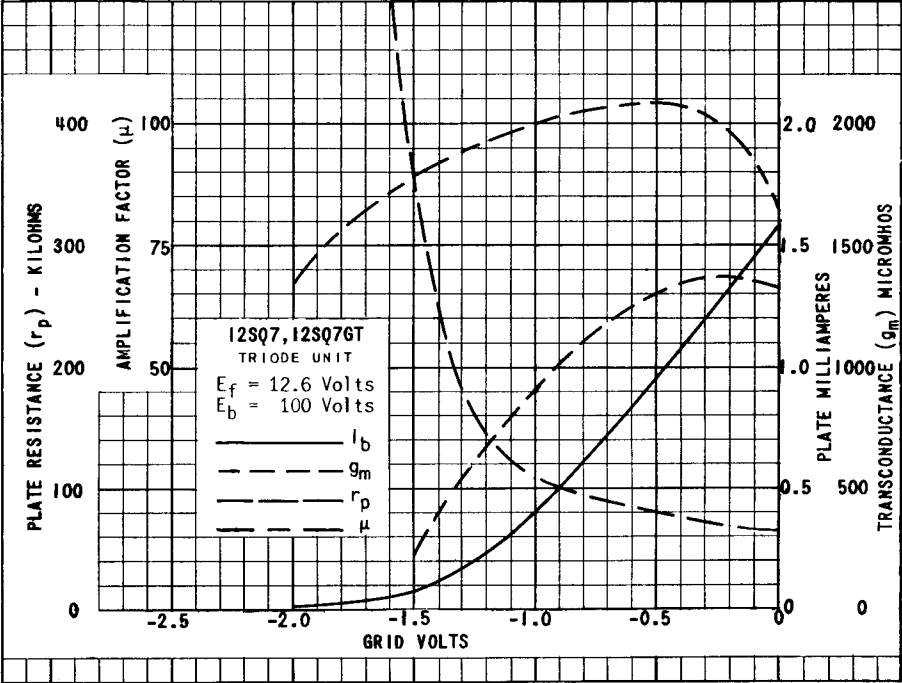


PLATE
1974
FEB. 2,
1948