TUNG-SOL

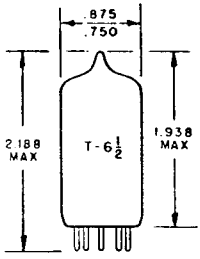
TRIODE-PENTODE

MINIATURE TYPE

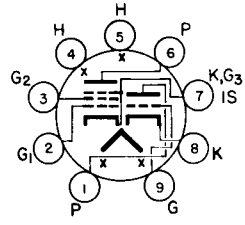
MEDIUM-MU TRIODE
AND
SHARP-CUTOFF PENTODE
FOR
HORIZONTAL-DEFLECTION
OSCILLATOR CIRCUITS
IN T.V. RECEIVERS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



GLASS BULB
MINIATURE BUTTON
9 PIN BASE E9-1
OUTLINE DRAWING
JEDEC 6-2



BOTTOM VIEW
BASING DIAGRAM
JEDEC 9 AE

THE 6GH8A IS A MEDIUM-MU TRIODE AND SHARP-CUTOFF PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR USE IN MULTIVIBRATOR-TYPE HORIZONTAL-DEFLECTION OSCILLATOR CIRCUITS IN TELEVISION RECEIVERS. THE TUBE IS ALSO SUITABLE FOR USE AS AN AGC AMPLIFIER OR SYNC SEPARATOR IN SUCH RECEIVERS.

THE 6GH8A IS CONTROLLED TO ASSURE LOW INTERELECTRODE LEAKAGE. IT HAS A MINIMUM LEAKAGE RESISTANCE OF 100 MEGOHMS BETWEEN GRID#1 OF EACH UNIT AND ALL OTHER ELECTRODES TIED TOGETHER, AND 100 MEGOHMS BETWEEN THE PLATE OF EACH UNIT AND ALL OTHER ELECTRODES TIED TOGETHER.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT EXTERNAL SHIELD	WITH EXTERNAL SHIELD	
TRIODE UNIT			
GRID TO PLATE (Tg TO Tp)	1.7	1.7 [A]	pf
GRID TO (H+ Pg3 + TK + PK + I.S.)	3	3.2 [A]	pf
PLATE TO (H + Pg3 + TK + PK + I.S.)	1.4	1.9 [A]	pf
HEATER TO CATHODE (TK TO H)	3	3 [B]	pf
PENTODE UNIT			
GRID 1 TO PLATE (Pg1 TO Pp)	MAX. 0.02	MAX. 0.01 [C]	pf
GRID 1 TO (Pk + Pg3 + Pg2 + H + I.S.)	5	5 [C]	pf
PLATE TO (PK + Pg3 + Pg2 + H + I.S.)	2.6	3.4 [C]	pf
HEATER TO (Pk + Pg3 + I.S.)	3	3 [B]	pf

A- EXTERNAL SHIELD #315 CONNECTED TO TRIODE CATHODE.
B- EXTERNAL SHIELD #315 CONNECTED TO GROUND.
C- EXTERNAL SHIELD # 315 CONNECTED TO PENTODE CATHODE.

CONTINUED ON FOLLOWING PAGE

PRINTED IN U.S.A.

CONTINUED FROM PRECEDING PAGE

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM RATINGS - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.3 VOLTS	450	MA.
HEATER WARM-UP TIME - AVERAGE		11	SECONDS
LIMITS OF SUPPLIED CURRENT		450 ± 30	MA.

PEAK HEATER-CATHODE VOLTAGE	TRIODE UNIT	PENTODE UNIT	
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200	200	VOLTS
DC COMPONENT	100	100	VOLTS

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

HORIZONTAL - DEFLECTION - OSCILLATOR SERVICE

	TRIODE UNIT	PENTODE UNIT	
PLATE VOLTAGE	330	350	VOLTS
GRID 2 VOLTAGE	-	330	VOLTS
GRID 1 VOLTAGE			
POSITIVE-BIAS VALUE	0	0	VOLTS
PEAK NEGATIVE VALUE	-	175	VOLTS
PLATE DISSIPATION	2.5	2.5	WATTS
GRID 2 INPUT	-	0.55	WATTS
CATHODE CURRENT			
PEAK	-	330	MA.
DC	-	20	MA.
GRID 1 CIRCUIT RESISTANCE			
FOR FIXED-BIAS OPERATION	2.2	2.2	MEGOHMS
FOR CATHODE-BIAS OPERATION	2.2	2.2	MEGOHMS

CONTINUED ON FOLLOWING PAGE

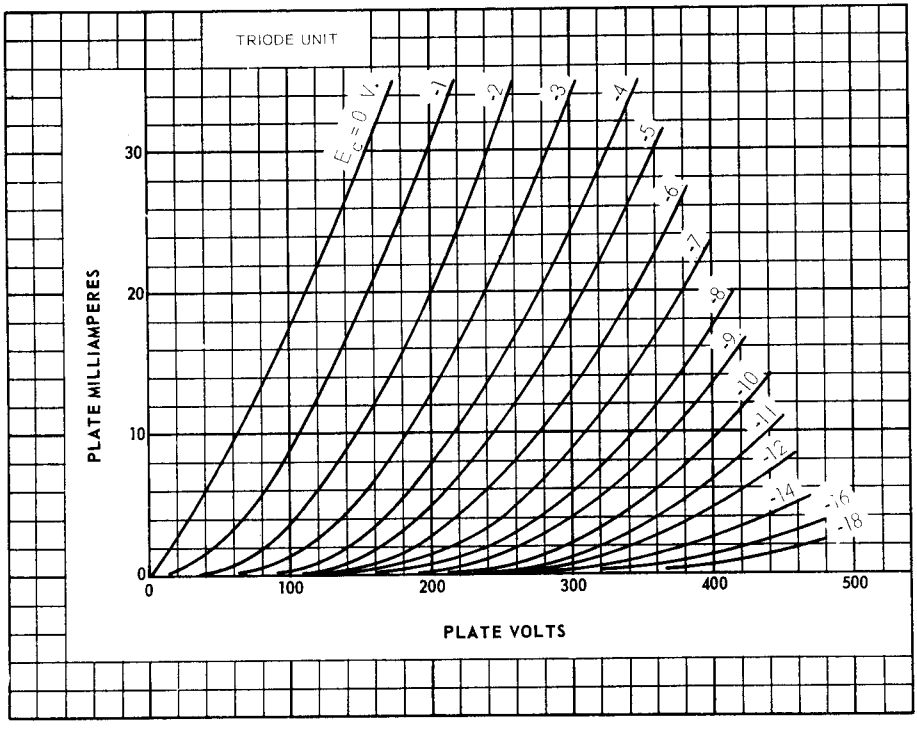
TUNG-SOL

CONTINUED FROM PRECEDING PAGE

CHARACTERISTICS

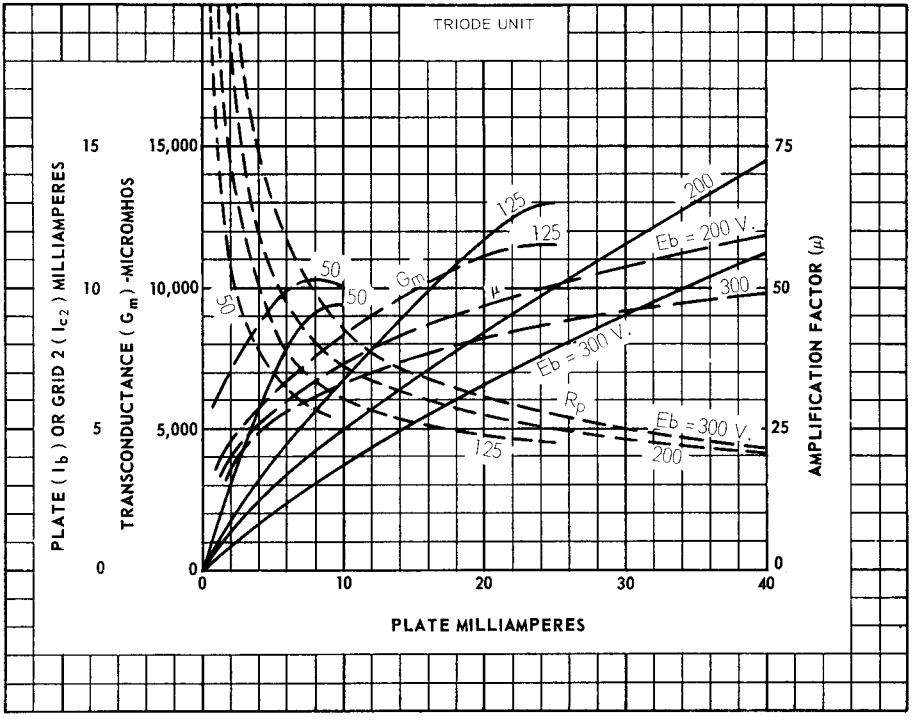
CLASS AI AMPLIFIER

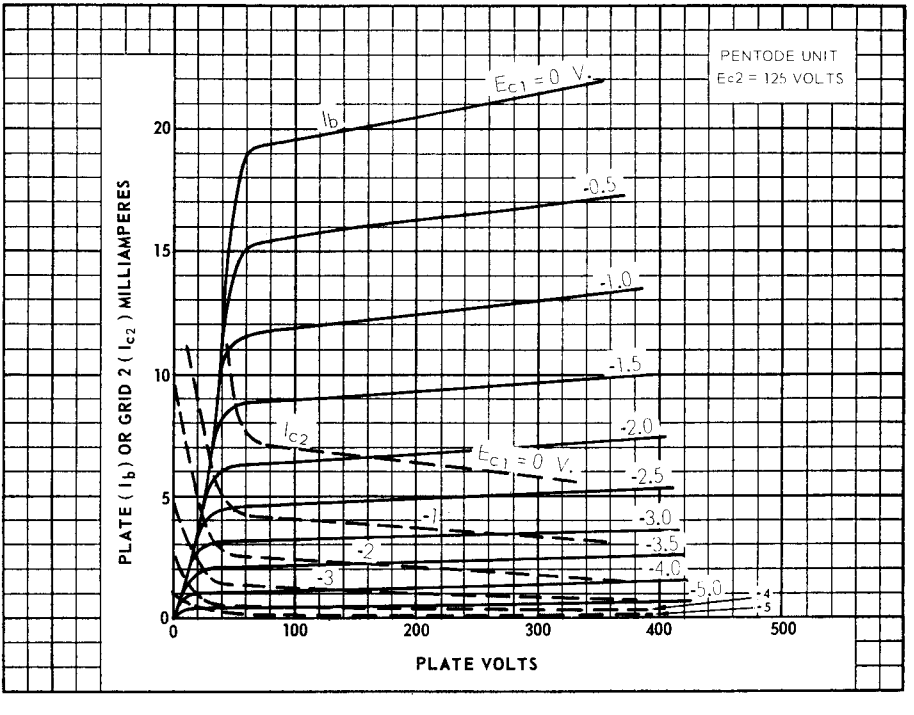
	TRIODE UNIT	PENTODE UNIT	
PLATE VOLTAGE	125	125	VOLTS
GRID 2 VOLTAGE	-	125	VOLTS
GRID 1 VOLTAGE	-1	-1	VOLTS
PLATE CURRENT	13.5	12	MA.
GRID 2 CURRENT	-	4.0	MA.
AMPLIFICATION FACTOR	46	-	
TRANSCONDUCTANCE	8,500	7,500	μMHOS
PLATE RESISTANCE	5,400	200,000	OHMS
GRID 1 VOLTAGE FOR I = 10 μA (APPROX.)	-8	-8	VOLTS

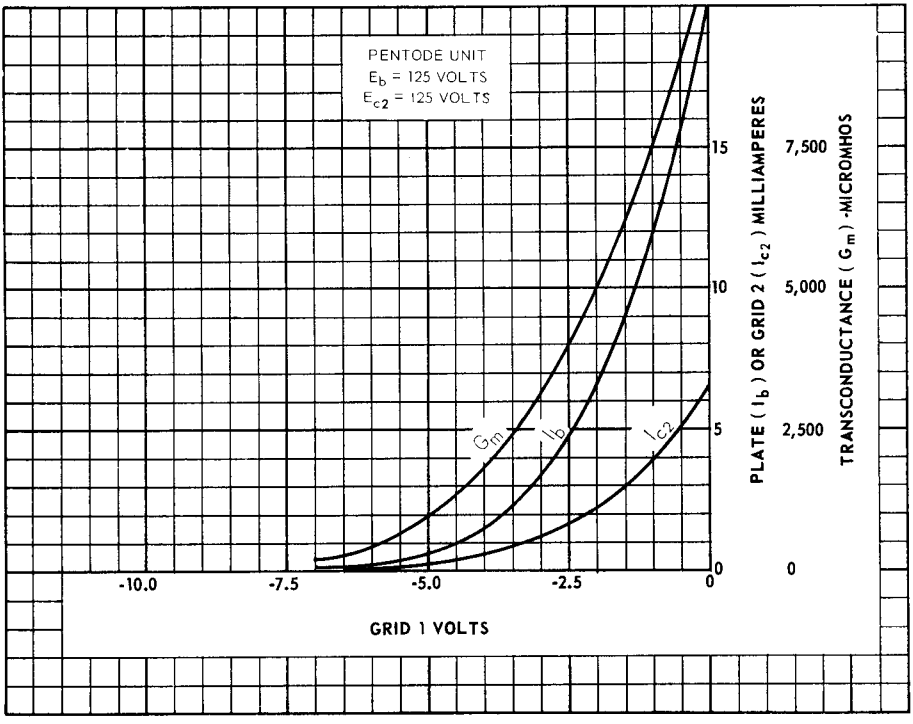


PRINTED IN U.S.A.

6GH8A


TRIODE UNIT
PLATE (I_b) OR GRID 2 (I_{c2}) MILLIAMPERES
TRANSCONDUCTANCE (G_m) -MICROMHOS
AMPLIFICATION FACTOR (μ)
PLATE MILLIAMPERES
15
10
5
0
15,000
10,000
5,000
0
75
50
25
0
0
10
20
30
40
Gm
μ
R_p
Eb = 200 V.
Eb = 300 V.
Eb = 300 V.
125
125
200
300
200
125
50
50
50


PENTODE UNIT
Ec2 = 125 VOLTS
PLATE (I_b) OR GRID 2 (I_{c2}) MILLIAMPERES
PLATE VOLTS
20
15
10
5
0
0
100
200
300
400
500
Ib
I_{c2}
E_{c1} = 0 V.
E_{c1} = 0 V.
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-3.5
-4.0
-5.0
-1
-2
-3
-4
-5



PRINTED IN U.S.A.