TUNG-SOL

DIODE PENTODE

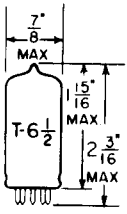
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

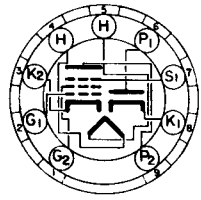
HEATER

6.3 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE
9DS

THE 6AS8 IS A GENERAL-PURPOSE, MULTIUNIT TUBE USING THE 9 PIN MINIATURE CONSTRUCTION. IT CONTAINS A HIGH PERVEANCE DIODE AND A SHARP-CUTOFF PENTODE IN ONE ENVELOPE. IT IS INTENDED FOR DIVERSIFIED APPLICATIONS IN TELEVISION AND RADIO RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES – APPROX.

WITH NO EXTERNAL SHIELD

DIODE UNIT		
PLATE TO HEATER & CATHODE & INTERNAL SHIELD	3.0	pf
PENTODE UNIT		
GRID #1 TO PLATE (MAX.)	→ 0.03	pf
INPUT	7.0	pf
OUTPUT	2.4	pf
PENTODE GRID TO DIODE PLATE (MAX.)	0.005	pf
PENTODE PLATE TO DIODE CATHODE (MAX.)	0.15	pf
PENTODE PLATE TO DIODE PLATE (MAX.)	0.10	pf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A_1 AMPLIFIER

	PENTODE UNIT	
HEATER VOLTAGE	6.3	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200[A]	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM GRID #3 VOLTAGE	0	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	300	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE SECOND CURVE	
MAXIMUM GRID #1 VOLTAGE:		
POSITIVE BIAS VALUE	0	VOLTS
MAXIMUM PLATE DISSIPATION	2.5	WATTS
MAXIMUM GRID #2 INPUT	0.5	WATT
MAXIMUM GRID #1 CIRCUIT RESISTANCE:		
CATHODE BIAS OPERATION	1.0	MEGOHM
FIXED BIAS OPERATION	0.25	MEGOHM

CONTINUED FROM PRECEDING PAGE

RATINGS – CONT'D

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

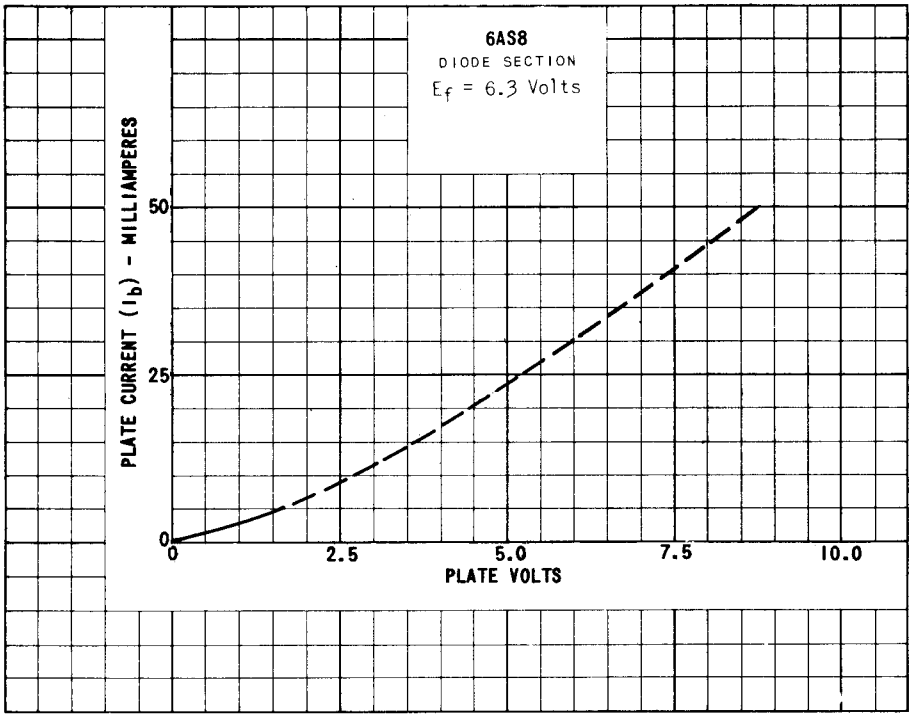
	DIODE UNIT	
MAXIMUM PEAK HEATER–CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200[A]	VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE	330	VOLTS
MAXIMUM PEAK PLATE CURRENT	50	MA.
MAXIMUM DC PLATE CURRENT	5	MA.

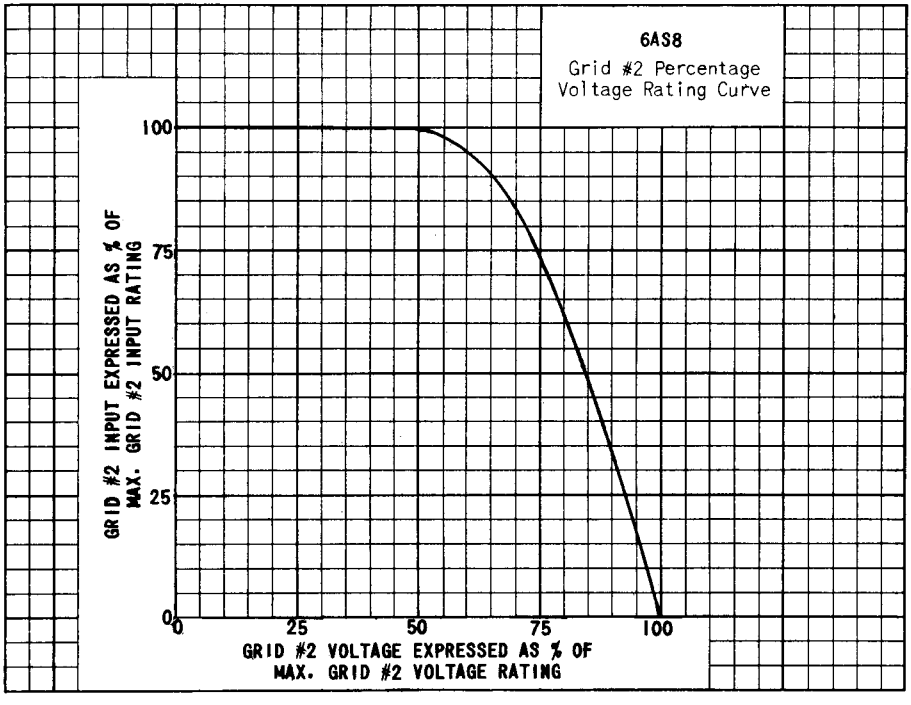
[A] THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

PLATE SUPPLY VOLTAGE	200	VOLTS
GRID #3	CONNECTED TO CATHODE AT SOCKET	
GRID #2 SUPPLY VOLTAGE	150	VOLTS
CATHODE BIAS RESISTOR	180	OHMS
PLATE RESISTANCE (APPROX.)	300 000	OHMS
TRANSCONDUCTANCE	6 200	µMHOS
GRID #1 BIAS (APPROX.) FOR I_b = 10 µAMP.	−8	VOLTS
PLATE CURRENT	9.5	MA.
GRID #2 CURRENT	3	MA.

→ INDICATES A CHANGE





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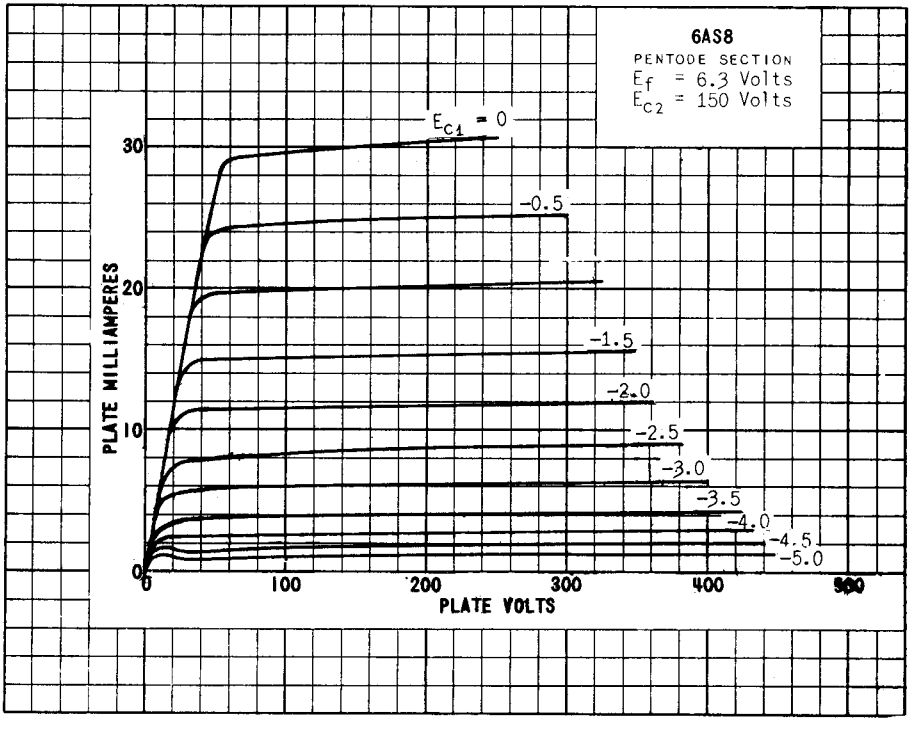
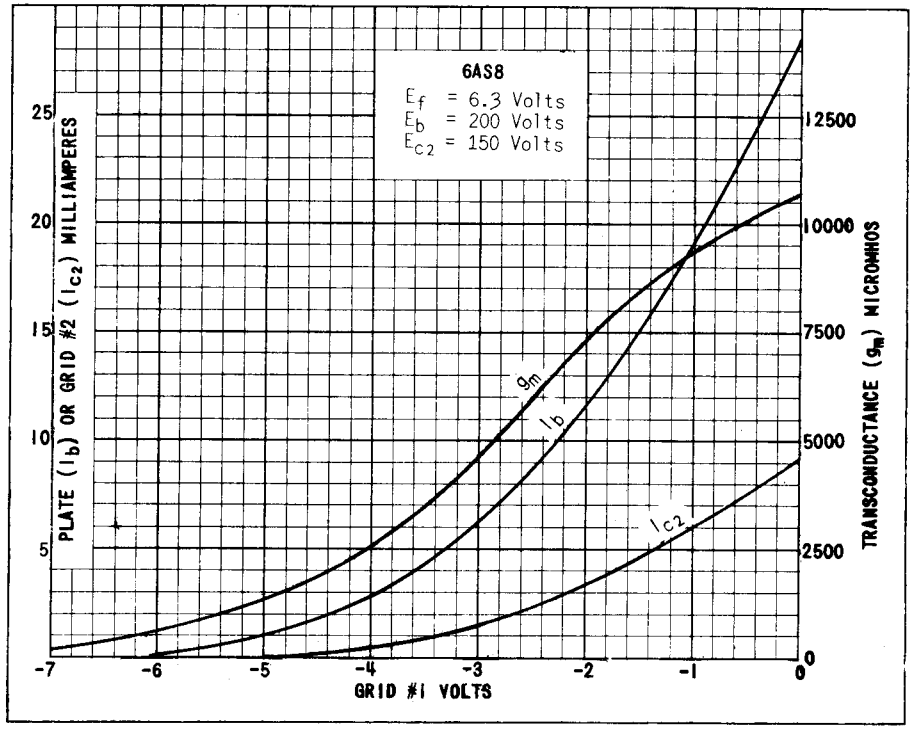

6AS8
PENTODE SECTION
E_f = 6.3 Volts
E_{c2} = 150 Volts
E_{c1} = 0
-0.5
-1.5
-2.0
-2.5
-3.0
-3.5
-4.0
-4.5
-5.0
PLATE MILLIAMPERES
PLATE VOLTS
0
10
20
30
100
200
300
400
500


6AS8
E_f = 6.3 Volts
E_b = 200 Volts
E_{c2} = 150 Volts
PLATE (I_b) OR GRID #2 (I_{c2}) MILLIAMPERES
TRANSCONDUCTANCE (g_m) MICROMHOS
GRID #1 VOLTS
g_m
I_b
I_{c2}
5
10
15
20
25
2500
5000
7500
10000
12500
-7
-6
-5
-4
-3
-2
-1
0