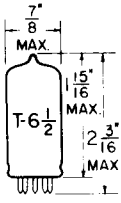
TUNG-SOL

DIODE PENTODE

MINIATURE TYPE

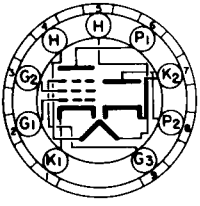


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
4.7 VOLTS 0.6 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE
9CY

THE 5AM8 IS A DIODE PENTODE ESPECIALLY DESIGNED FOR USE AS A VIDEO DETECTOR AND IF AMPLIFIER IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD[A]	WITHOUT SHIELD	
PENTODE			
GRID #1 TO PLATE (MAX.)	0.015	0.015	μμf
INPUT	6.0	6.0	μμf
OUTPUT	3.4	2.6	μμf
DIODE			
INPUT: P TO (H+K)	2.3	1.7	μμf
CATHODE TO (H+P)	3.0	3.0	μμf
COUPLING (DIODE PLATE TO PENTODE PLATE)	0.035	0.10	μμf
COUPLING (DIODE PLATE TO GRID #1)	0.005	0.006	μμf
COUPLING (DIODE CATHODE TO PENTODE PLATE)	0.15	0.15	μμf

[A] SHIELD #315.

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE.

CONTINUED FROM PRECEDING PAGE

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	4.7	VOLTS
MAXIMUM HEATER–CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC.	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM PLATE DISSIPATION	2.8	WATTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART	
MAXIMUM GRID #2 SUPPLY VOLTAGE	300	VOLTS
MAXIMUM GRID #2 DISSIPATION	0.5	WATT
MAXIMUM POSITIVE GRID #1 VOLTAGE	0	VOLTS
MAXIMUM GRID #3 VOLTAGE	0	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:		
CATHODE BIAS	1.0	MEGOHM
FIXED BIAS	0.25	MEGOHM
MAXIMUM DIODE CURRENT FOR CONTINUOUS OPERATION	5.0	MA.
HEATER WARM-UP TIME (APPROX.)[B]	11.0	SECONDS

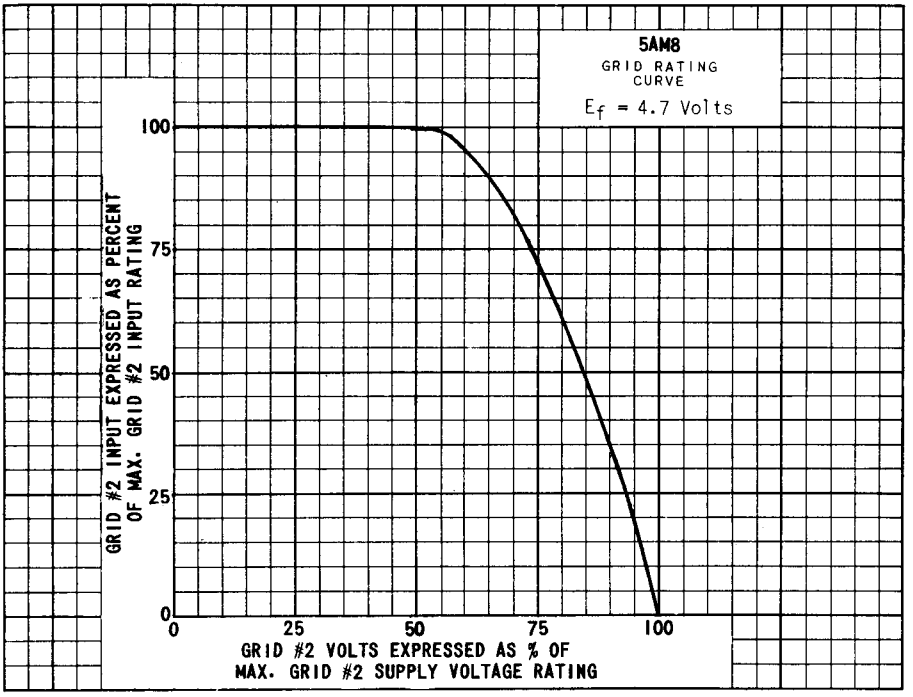
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

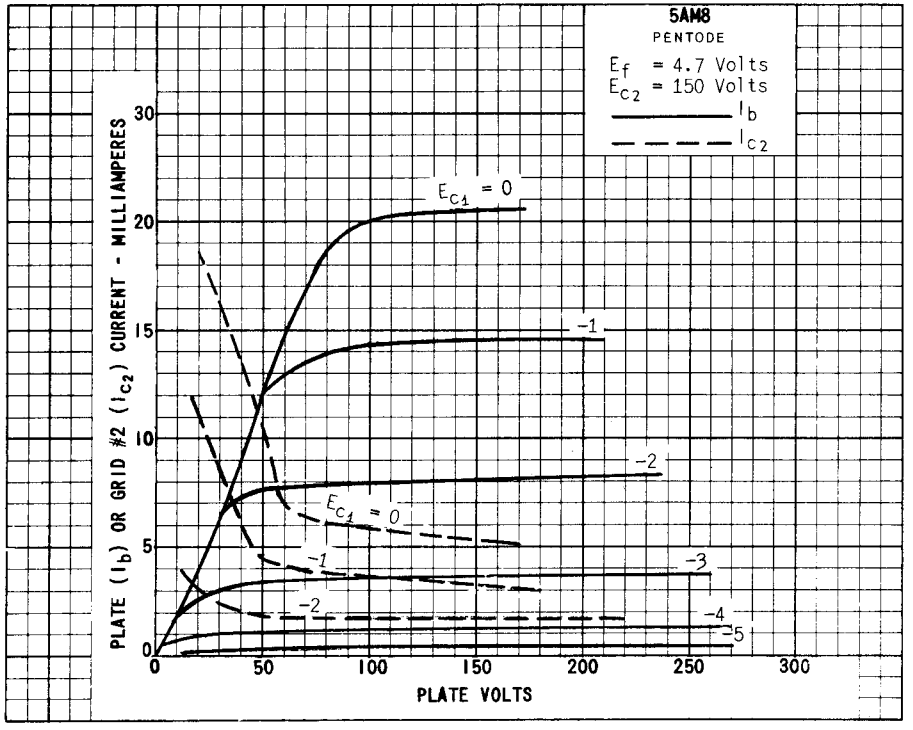
HEATER VOLTAGE	4.7	VOLTS
HEATER CURRENT	0.6	AMP.
PLATE VOLTAGE	200	VOLTS
GRID #2 VOLTAGE	150	VOLTS
GRID #3 VOLTAGE	0	VOLTS
CATHODE RESISTOR	120	OHMS
PLATE CURRENT	11.5	MA.
GRID #2 CURRENT	2.7	MA.
TRANSCONDUCTANCE	7 000	μMHOS
PLATE RESISTANCE (APPROX.)	0.6	MEGOHM
GRID #1 VOLTAGE FOR I_b = 10 μAMP.	-8	VOLTS
DIODE PLATE VOLTAGE FOR DIODE CURRENT = 50 MA.[C]	10	VOLTS

[B] HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

[C] TEST CONDITION ONLY. OPERATING CONDITIONS MUST NOT EXCEED THE DESIGN CENTER RATING.

SIMILAR TYPE REFERENCE: Its characteristics are identical to the 6AM8 except for heater ratings and heater warm-up time.


5AM8
GRID RATING
CURVE
E_f = 4.7 Volts
GRID #2 INPUT EXPRESSED AS PERCENT OF MAX. GRID #2 INPUT RATING
100
75
50
25
0
0
25
50
75
100
GRID #2 VOLTS EXPRESSED AS % OF MAX. GRID #2 SUPPLY VOLTAGE RATING


5AM8
PENTODE
E_f = 4.7 Volts
E_{c_2} = 150 Volts
I_b
I_{c_2}
PLATE (I_b) OR GRID #2 (I_{c_2}) CURRENT - MILLIAMPERES
30
20
15
10
5
0
E_{c_1} = 0
-1
-2
E_{c_1} = 0
-1
-2
-3
-4
-5
0
50
100
150
200
250
300
PLATE VOLTS