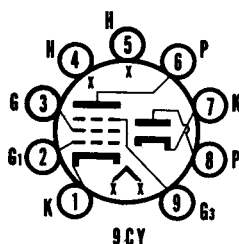




SYLVANIA TYPE 6HJ8 **DIODE PENTODE**



MECHANICAL DATA

Bulb.....	T-6 1/2
Base.....	E9-1, Small Button 9-Pin
Outline.....	6-2
Basing.....	9CY
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics

Heater Operation

	Series	Parallel
Heater Voltage.....	6.3	6.3 ¹ Volts
Heater Current.....	450 ¹	450 Ma
Heater Warm-up Time.....	11	— Seconds

Ratings (Design Maximum Values)

	Min.-Max.	Min.-Max.
Heater Voltage ²	— —	5.7 - 6.9 Volts
Heater Current ²	420 - 480	— — Ma
Maximum Heater-Cathode Voltage		
Heater Neg. with Respect to Cathode		
Total D C and Peak.....	200	200 Volts
Heater Pos. with Respect to Cathode		
D C.....	100	100 Volts
Total D C and Peak.....	200	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Pentode Section

Grid to Plate.....	.015 μ f Max.
Input: g ₁ to (h+k+g ₂ +g ₃ +I.S.).....	7.0 μ f
Output: p to (h+k+g ₂ +g ₃ +I.S.).....	3.2 μ f

Diode Section

Plate to Heater, Cathode.....	2.4 μ f
Cathode to Heater, Plate.....	3.0 μ f

Coupling:

Pentode Grid to Diode Plate.....	.005 μ f Max.
Pentode Plate to Diode Cathode.....	.015 μ f Max.
Pentode Plate to Diode Plate.....	.035 μ f Max.

RATINGS (Design Maximum Values)

Plate Voltage.....	330 Volts Max.
Grid No. 2 Voltage.....	See 6AM8 Rating Chart
Grid No. 2 Supply Voltage.....	330 Volts Max.
Plate Dissipation.....	3.2 Watts Max.
Grid No. 2 Dissipation.....	0.55 Watts Max.
Positive Grid No. 1 Voltage.....	0 Volts Max.
Diode Current for Continuous Operation.....	5 Ma Max.
Grid No. 1 Circuit Resistance	
Self Bias.....	1.0 Megohm Max.
Fixed Bias.....	0.25 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Supply Voltage.....	125 Volts
Grid No. 2 Supply Voltage.....	125 Volts
Grid No. 3 Voltage.....	Connected to Cathode at Socket
Cathode Resistor.....	56 Ohms
Plate Current.....	11.5 Ma
Grid No. 2 Current.....	3.6 Ma
Transconductance.....	9300 μ mhos
Plate Resistance (approx.).....	0.2 Megohm
Ec ₁ for I _b = 20 μ a (approx.).....	-6 Volts
I _b at EC ₁ = -3V; RK = 0.....	2 Ma
Diode Characteristics with Eb = 10 Volts, I _b = 50 Ma ⁴	

NOTES:

1. For series/parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater current/voltage.

SYLVANIA TYPE 6HJ8 (Cont'd)

NOTES: (Cont'd)

2. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
3. Heater voltage supply variations shall be restricted to maintain heater voltage/current within the specified values.
4. Test condition only.

APPLICATION

The Sylvania Type 6HJ8 is a miniature diode pentode. The pentode section has sharp cutoff characteristics and may be used as an IF or AGC amplifier. The high perveance diode can be used as an RF detector, video detector or dc restorer.