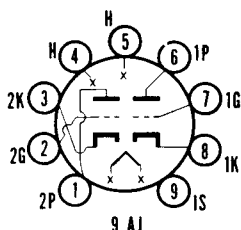


**SYLVANIA TYPE 6BZ8  
4BZ8**  
MEDIUM MU DUO TRIODE  
SEMI-REMOTE CUTOFF



**MECHANICAL DATA**

Bulb.....	T-6 $\frac{1}{2}$
Base.....	E9-1, Miniature Button 9-Pin
Outline.....	6-2
Basing.....	9AJ
Cathode.....	Coated Unipotential
Mounting Position.....	Any

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**

	<b>4BZ8</b>	<b>6BZ8</b>
Heater Voltage (ac or dc).....	4.2	6.3 Volts
Heater Current.....	600	400 Ma
Heater Warm-up Time <sup>1</sup> .....	11	Seconds
Heater-Cathode Voltage (Design Max. Values) <sup>2</sup>		
Heater Negative with Respect to Cathode..		200 Volts
Heater Positive with Respect to Cathode...		200 Volts

**DIRECT INTERELECTRODE CAPACITANCES (Shielded)<sup>3</sup>**

	<b>Section No. 1</b>	<b>Section No. 2</b>
<b>Cascode Operation</b>		
Grid to Plate.....	1.15	— $\mu\mu\text{f}$
Plate to Cathode.....	—	0.15 $\mu\mu\text{f}$
Triode No. 1 Plate to Triode No. 2 Plate.....	0.010	— $\mu\mu\text{f}$

**RATINGS<sup>2</sup> (Design Maximum Values)**

Plate Voltages.....	250 Volts Max.
Plate Dissipation.....	2.2 Watts Max.
Cathode Current.....	20 Ma Max.
Grid Circuit Resistance.....	0.1 Megohm Max.

**CHARACTERISTICS**

<b>Class A<sub>1</sub> Amplifier</b>	
Plate Voltage.....	125 Volts
Cathode Resistor.....	100 Ohms
Plate Current.....	10 Ma
Transconductance.....	8000 Ohms
Amplification Factor.....	45
Plate Resistance.....	5600 Ohms
Grid Voltage (approx.) for G <sub>m</sub> = 50 $\mu\text{mhos}$ .....	-13 Volts
Cascode Operation at E <sub>b</sub> = 250 Volts, E <sub>c1</sub> = -0.5 Volts	
Transconductance.....	10,000 $\mu\text{mhos}$
Plate Current.....	15 Ma

**NOTES:**

1. Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value 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 rated heater voltage divided by rated heater current.
2. Design-Maximum Ratings are the limiting values expressed with respect to bogie tubes at which satisfactory tube life can be expected to occur. To obtain satisfactory circuit performance, therefore, the equipment designer must establish the circuit design so that no design-maximum value is exceeded with a bogie tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, and environmental conditions.
3. Use external shield No. 315.

**APPLICATION**

The Sylvania Type 6BZ8 is a miniature, medium mu, semi-remote cutoff double triode designed for use in low noise VHF amplifier application and particularly for cascode operation.

The 4BZ8 is identical to the 6BZ8 except for heater characteristics. The 4BZ8 has a 600 ma heater and controlled heater warm-up time and is intended for use in series heater string television receivers.