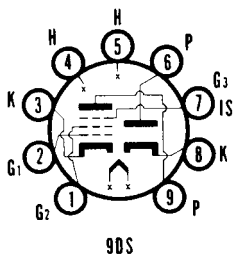


**SYLVANIA TYPE 6AS8
5AS8**

**SINGLE DIODE
SHARP CUTOFF PENTODE**



MECHANICAL DATA

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

6AS8, 5AS8 (Cont'd)

ELECTRICAL DATA

HEATER CHARACTERISTICS

	5AS8	6AS8
Heater Voltage	4.7	6.3 Volts
Heater Current	600	450 Ma
Heater Warm-up Time ¹	11	Seconds
Heater-Cathode Voltage (Design Center Values)		
Heater Negative with Respect to Cathode		
Total D C and Peak		200 Volts Max.
Heater Positive with Respect to Cathode		
D C		100 Volts Max.
Total D C and Peak		200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Pentode Section		
Grid No. 1 to Plate		0.02 μmf Max.
Input: g1 to (h+k+g2+g3)		7.0 μmf
Output: p to (h+k+g2+g3)		2.4 μmf
Coupling		
Pentode Grid to Diode Plate		0.005 μmf Max.
Pentode Plate to Diode Cathode		0.15 μmf Max.
Pentode Plate to Diode Plate		0.10 μmf Max.
Diode Section		
Plate to Heater, Cathode and Internal Shield		3.0 μmf

MAXIMUM RATINGS (Design Center Values)

Pentode Section		
Plate Voltage		300 Volts
Plate Dissipation		2.5 Watts
Grid No. 2 Voltage	See 6AM8 Rating Chart	
Grid No. 2 Supply Voltage		300 Volts
Grid No. 2 Dissipation		0.5 Watt
Positive Grid No. 1 Voltage		0 Volts
Grid No. 3 Voltage		0 Volts
Grid No. 1 Circuit Resistance		
Cathode Bias		1.0 Megohm
Fixed Bias		0.25 Megohm
Diode Section		
Peak Inverse Plate Voltage		330 Volts
Peak Plate Current		50 Ma
D C Plate Current		5 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier

Plate Supply Voltage		200 Volts
Grid No. 2 Supply Voltage		150 Volts
Grid No. 3 Voltage	Connected to Cathode at Socket	
Cathode Resistor		180 Ohms
Plate Current		9.5 Ma
Grid No. 2 Current		3.0 Ma
Transconductance		6200 μmhos
Plate Resistance (approx.)		0.3 Megohm
Grid No. 1 Voltage for $I_b = 10 \mu\text{a}$ (approx.)		-8 Volts

NOTES:

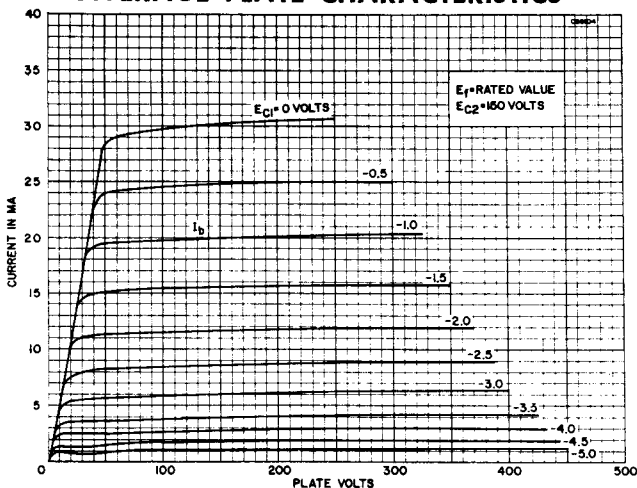
1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.

APPLICATION

The Sylvania Types 5AS8 and 6AS8 have a diode and pentode contained in a miniature envelope. The pentode section has sharp cutoff characteristics and may be used as an IF amplifier, video amplifier and agc amplifier.

The high perveance diode can be used as an audio detector, video detector or dc restorer.

AVERAGE PLATE CHARACTERISTICS



6AS8, 5AS8 (Cont'd)

AVERAGE TRANSFER CHARACTERISTICS

