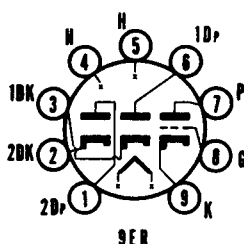




**SYLVANIA TYPE 6BN8
8BN8**



MECHANICAL DATA

Bulb.....	T-6 1/2
Base.....	E9-1, Small Button 9-Pin
Outline.....	6-3
Basing.....	9ER
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6BN8	8BN8
Heater Voltage.....	6.3	8.4 Volts
Heater Current.....	600	450 Ma
Heater Warm-up Time ¹	11	11 Seconds
Heater-Cathode Voltage (Triode and Diodes Design Center Values)		
Heater Negative with Respect to Cathode		
Total D C and Peak.....	200	200 Volts Max.
Heater Positive with with Respect to Cathode		
D C.....	100	100 Volts Max.
Total D C and Peak.....	200	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode	
Grid to Plate.....	2.5 $\mu\mu\text{f}$
Input: g to (h + Tk).....	3.6 $\mu\mu\text{f}$
Output: p to (h + Tk).....	0.25 $\mu\mu\text{f}$
Diodes	
No. 1 Diode Plate to No. 1 Diode Cathode + Heater.....	1.9 $\mu\mu\text{f}$
No. 2 Diode Plate to No. 2 Diode Cathode + Heater.....	1.9 $\mu\mu\text{f}$
No. 1 Diode Cathode to No. 1 Diode Plate + Heater.....	4.8 $\mu\mu\text{f}$
No. 2 Diode Cathode to No. 2 Diode Plate + Heater.....	4.8 $\mu\mu\text{f}$

SYLVANIA TYPE 6BN8, 8BN8 (Cont'd)

DIRECT INTERELECTRODE CAPACITANCES (Unshielded) (Cont'd)

Coupling

No. 1 Diode Plate to Triode Grid.....	0.060 μf Max.
No. 2 Diode Plate to Triode Grid.....	0.10 μf Max.
No. 1 Diode Cathode to All: 1Dk to (h + Tk + 2Dk + Tp + 1Dp + Tg + 2Dp)...	5.0 μf
No. 2 Diode Cathode to All: 2Dk to (h + Tk + 1Dk + Tp + 1Dp + 2Dp + Tg)...	5.0 μf
No. 1 Diode Plate to No. 2 Diode Plate.....	0.070 μf Max.
No. 1 Diode Plate to All: 1Dp to (h + Tk + 1Dk + 2Dk + Tp + 2Dp + Tg)...	3.0 μf
No. 2 Diode Plate to All: 2Dp to (h + Tk + 1Dk + 2Dk + Tp + 1Dp + Tg)...	3.0 μf

MAXIMUM RATINGS (Design Center Values)

Plate Voltage.....	300 Volts	Triode Section
Positive D C Grid Voltage.....	0 Volts	300 Volts
Plate Dissipation.....	1.5 Watts	0 Volts
Grid Circuit Resistance.....	1.0 Megohm	1.5 Watts
		Diode Section
Peak Plate Current (Each Plate).....	54 Ma	54 Ma
D C Current (Each Plate).....	9 Ma	9 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier		Triode Section
Plate Voltage.....	100	250 Volts
Grid Voltage.....	-1	-3 Volts
Plate Current.....	1.5	1.6 Ma
Transconductance.....	3500	2500 μmhos
Amplification Factor.....	75	70
Plate Resistance (approx.).....	21,000	28,000 Ohms
Grid Voltage (approx.) for $I_b = 10 \mu\text{a}$	-2.5	-5.5 Volts
		Diode Section
Average Current Each Plate at 10 Volts D C ²		50 Ma
Voltage Drop Each Section at $I_b = 9 \text{ Ma}$ D C.....		2.6 Volts

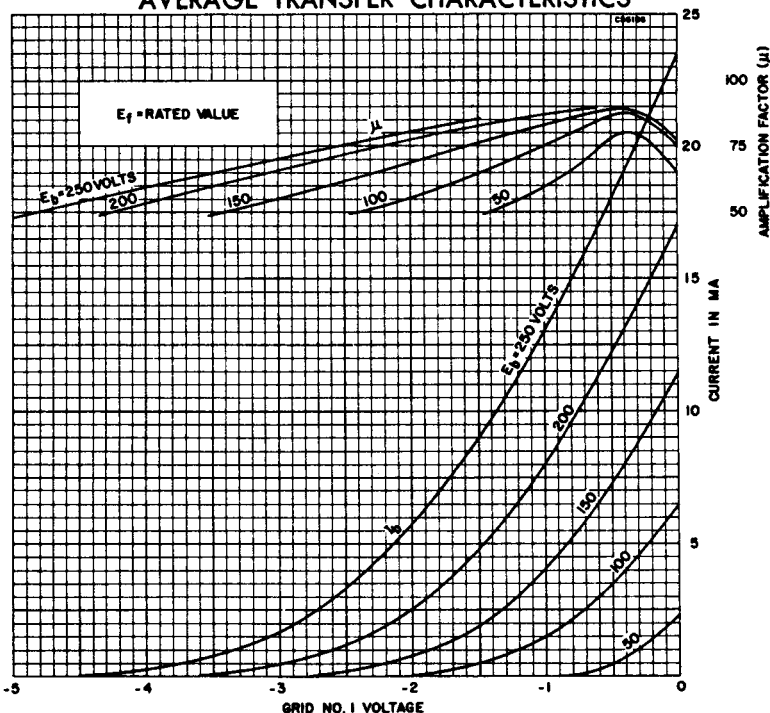
NOTE:

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. Test conditions only.

APPLICATION DATA

The Sylvania Type 6BN8 is a miniature, high μ triode, double diode intended for application in color and monochrome television receivers. The tube features separate cathode connections for each section and controlled heater warm-up time to insure dependable operation in series string receivers. The 8BN8 is identical to the 6BN8 except for heater characteristics.

AVERAGE TRANSFER CHARACTERISTICS



SYLVANIA TYPE 6BN8, 8BN8 (Cont'd)

AVERAGE PLATE CHARACTERISTICS

