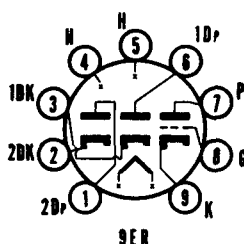




SYLVANIA TYPE 6BN8 8BN8



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 μ mf
Input: g to (h + Tk).....	3.6 μ mf
Output: p to (h + Tk).....	0.25 μ mf
Diodes	
No. 1 Diode Plate to No. 1 Diode Cathode + Heater.....	1.9 μ mf
No. 2 Diode Plate to No. 2 Diode Cathode + Heater.....	1.9 μ mf
No. 1 Diode Cathode to No. 1 Diode Plate + Heater.....	4.8 μ mf
No. 2 Diode Cathode to No. 2 Diode Plate + Heater.....	4.8 μ mf

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

DIRECT INTERELECTRODE CAPACITANCES (Unshielded) (Cont'd)

Coupling

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

MAXIMUM RATINGS (Design Center Values)

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

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier

Plate Voltage.....	100	Triode Section 250 Volts
Grid Voltage.....	-1	-3 Volts
Plate Current.....	1.5	1.6 Ma
Transconductance.....	3500	2500 μ mhos
Amplification Factor.....	75	70
Plate Resistance (approx.).....	21,000	28,000 Ohms
Grid Voltage (approx.) for Ib = 10 μ a.....	-2.5	-5.5 Volts
Average Current Each Plate at 10 Volts D C ²		Diode Section 50 Ma
Voltage Drop Each Section at Ib = 9 Ma D C.....		2.6 Volts

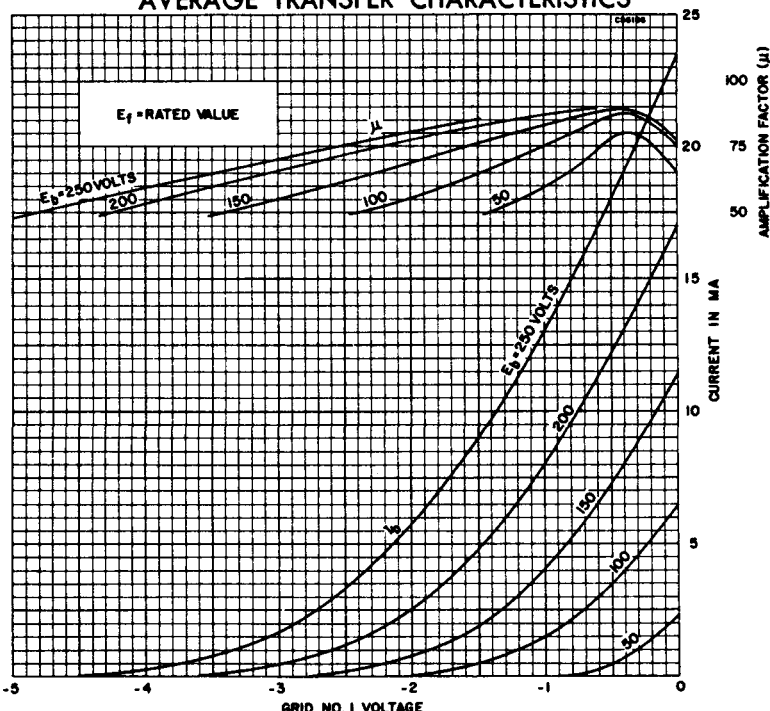
NOTE:

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 mu 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)

