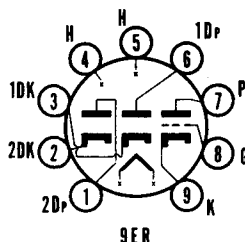




SYLVANIA TYPE 6BJ8 **MEDIUM MU TRIODE** **DOUBLE DIODE**



MECHANICAL DATA

Bulb.....	T-61½
Base.....	E9-1, Small Button 9-Pin
Outline.....	6-3
Basing.....	9ER
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage.....	6.3 Volts
Heater Current.....	600 Ma
Heater Warm-up Time¹.....	11 Seconds
Heater-Cathode Voltage (Design Center Values)	
Heater Negative with Respect to Cathode	
Total DC and Peak.....	200 Volts Max.
Heater Positive with Respect to Cathode	
DC.....	100 Volts Max.
Total DC and Peak.....	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Diode Section

No. 1 Diode Plate to No. 1 Diode Cathode + Heater.....	1.9 μmf
No. 2 Diode Plate to No. 2 Diode Cathode + Heater.....	1.9 μmf
No. 1 Diode Cathode to No. 1 Diode Plate + Heater.....	4.6 μmf
No. 2 Diode Cathode to No. 2 Diode Plate + Heater.....	4.6 μmf

Triode Section

Grid to Plate.....	2.6 μmf
Input: g to (h + Tk).....	2.8 μmf
Output: p to (h + Tk).....	0.31 μmf

Coupling

No. 1 Diode Plate to Triode Grid.....	0.070 μmf Max.
No. 2 Diode Plate to Triode Grid.....	0.11 μmf Max.
No. 1 Diode Cathode to All:	
1 Dk to (h + Tk + 2Dk + Tp + 1Dp + Tg + 2Dp).....	4.8 μmf
No. 2 Diode Cathode to All:	
2 Dk to (h + Tk + 1Dk + Tp + 1Dp + 2Dp + Tg).....	4.8 μmf
No. 1 Diode Plate to No. 2 Diode Plate.....	0.060 μmf Max.
No. 1 Diode Plate to All:	
1 Dp to (h + Tk + 1Dk + 2Dk + Tp + 2Dp + Tg).....	3.0 μmf
No. 2 Diode Plate to All:	
2 Dp to (h + Tk + 1Dk + 2Dk + Tp + 1Dp + Tg).....	3.0 μmf

MAXIMUM RATINGS—Each Section

(Design Center Values—Except as Noted)

	Class A₁ Amplifier	Vertical Deflection Amplifier
Triode Section		
Plate Voltage.....	300	300 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.)...		1200 Volts
Peak Negative Pulse Grid Voltage.....		250 Volts
Positive DC Grid Voltage.....	0	Volts
Maximum Plate Dissipation³.....	3.5	3.5 Watts
Average Cathode Current.....	20	20 Ma
Peak Cathode Current.....		70 Ma
Grid Circuit Resistance		
Self Bias.....	1.0	2.2 Megohms
Fixed Bias.....	1.0	Megohms
Diode Section		
Peak Plate Current, (each plate).....		54 Ma
DC Current, (each plate).....		9 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier		Triode Section
Plate Voltage.....	90	250 Volts
Grid Voltage.....	0	-9 Volts
Plate Current.....	13.5	8.0 Ma
Transconductance.....	4700	2800 μmhos
Amplification Factor.....	22	20
Plate Resistance (approx.).....	4700	7150 Ohms
Plate Current at E _c = -12.5 Volts DC.....		1.7 Ma
Grid Voltage (approx.) for I _b = 10 μa.....	-7	-18 Volts

6BJ8 (Cont'd)

CHARACTERISTICS AND TYPICAL OPERATION (Cont'd)

Average Current Each Plate at 10 Volts D C....
Voltage Drop Each Section at $I_b = 9$ Ma DC....

Diode Section
50 Ma
2.6 Volts

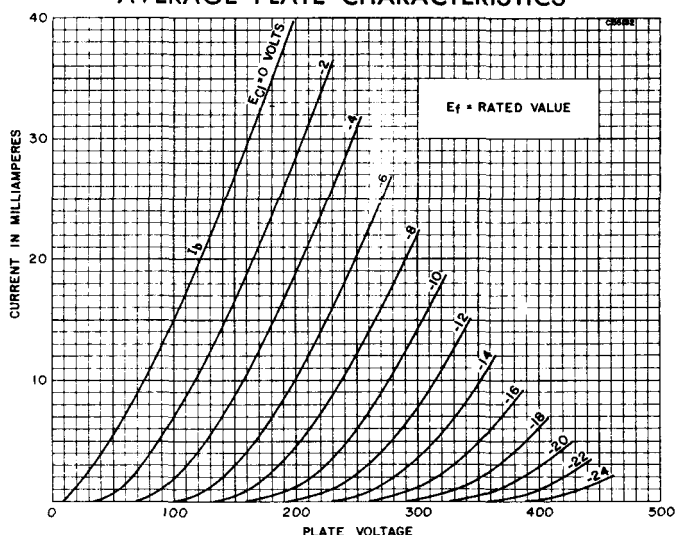
NOTES:

1. 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 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three times the rated heater voltage divided by the rated heater current.
2. For operation in a 525 line, 30-frame system as described in "Standards of Good Engineering Practice for Television Stations; Federal Communications Commission." The duty cycle of the voltage pulse must not exceed 15% of one scanning cycle.
3. In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
4. Test conditions only.

APPLICATION

The Sylvania Type 6BJ8 is a miniature, medium mu triode, double diode intended for use as a phase splitter, phase comparator and vertical deflection amplifier. The tube features controlled heater warm-up time to insure dependable operation in series string receivers and separate cathode connections for each section.

AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

