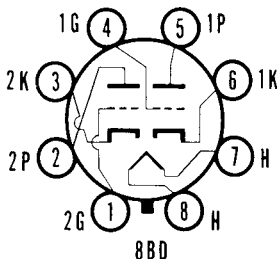


SYLVANIA TYPE 10EG7



MECHANICAL DATA

Bulb.....	T-9
Base.....	B8-58, Short Intermediate Shell Octal, 8-Pin
Outline.....	9-38
Basing.....	8BD
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage.....	9.7 Volts
Heater Current.....	600 Ma
Heater Warm-up Time ¹	11 Seconds
Maximum Heater Current Range ²	560-640 Ma
Heater-Cathode Voltage (Design Maximum Values) ²	
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)

	Section No. 1 ⁵	Section No. 2 ⁵
Grid to Plate.....	4.4	9.5 μ f
Input: g to (h+k).....	2.2	7.0 μ f
Output: p to (h+k).....	0.6	1.6 μ f

RATINGS (Design Maximum Values)²

Vertical Deflection Oscillator and Amplifier³

	Section No. 1 Oscillator	Section No. 2 Amplifier
Plate Voltage.....	330	330 Volts Max.
Grid No. 1 Voltage.....	1500 Volts Max.	Peak Positive Pulse Plate
Grid No. 2 Voltage.....	400 250 Volts Max.	Peak Negative Pulse Grid
Plate Current.....	1.5 10 Watts Max.	Plate Dissipation
Grid No. 1 Current.....	22 50 Ma. Max.	Average Cathode Current
Grid No. 2 Current.....	77 175 Ma. Max.	Peak Cathode Current
Grid Circuit Resistance.....	2.2 2.2 Megohms	Grid Circuit Resistance
Self Bias.....		Self Bias

CHARACTERISTICS

	Section No. 1 ⁵	Section No. 2 ⁵
Plate Voltage.....	250	150 Volts
Grid No. 1 Voltage.....	-1	-17.5 Volts
Grid No. 2 Voltage.....	5.5	45 Ma
Plate Current.....	2000	7500 μ mhos
Grid No. 1 Current.....	17.5	6.0
Grid No. 2 Current.....	8750	800 Ohms
Plate Resistance (approx.).....	-20	... Volts
Grid No. 1 Resistance (approx.).....		-40 Volts
Grid No. 2 Resistance (approx.).....		8 Ma
Control Grid Resistance and Ec = 0 V.....		95 Ma

AVERAGE CHARACTERISTICS

Plate Voltage.....	
Grid No. 1 Voltage.....	
Plate Current.....	
Transconductance.....	
Amplification Factor.....	
Plate Resistance (approx.).....	
Ec for Ib = 10 μ a.....	
Ec for Ib = 100 μ a.....	
Ib at Ec = -25 V.....	
Ib with Eb = 60 V.....	

NOTES:

Time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times the rated heater voltage to a circuit consisting of the tube heater in series with a resistor having a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.

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

SYLVANIA TYPE 10EG7 (Cont'd)

NOTES: (cont'd)

2. Design Maximum Ratings are the limiting values expressed with respect to bogey tubes at which satisfactory tube life can be expected to occur. To obtain satisfactory performance, therefore, the equipment designed must establish the circuit design so that no design-maximum value is exceeded with a bogey 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. 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.
4. In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.
5. Section No. 1 connects to Pins 4, 5 and 6. Section No. 2 connects to Pins 1, 2 and 3.

APPLICATION

The Sylvania Type 10EG7 is a T-9 double triode with dissimilar sections. Section No. 1 is intended for use as a Vertical Deflection Oscillator having medium μ and Section No. 2 is intended for use as a Vertical Deflection Amplifier having low μ . Type 10EG7 is intended for use in television receivers employing series heater strings.