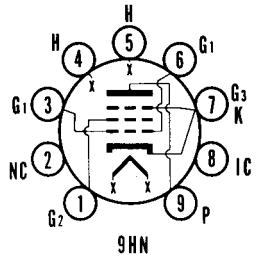


SYLVANIA TYPES 6EM5 8EM5



MECHANICAL DATA

Bulb.....	T-6 $\frac{1}{2}$
Base.....	E9-1, Miniature Button 9-Pin
Outline.....	6-4
Basing.....	9HN
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6EM8	8EM5
Heater Voltage.....	6.3	8.4 Volts
Heater Current.....	800	600 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)

Grid No. 1 to Plate.....	0.7 μ f Max.
Input: g1 to (h+k+g2+g3).....	10 μ f
Output: p to (h+k+g2+g3).....	5.1 μ f

MAXIMUM RATINGS (Design Center Values)

Vertical Deflection Amplifier²	
Plate Voltage.....	315 Volts
Grid No. 2 Voltage.....	285 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.).....	2200 Volts
Peak Negative Pulse Grid Voltage.....	250 Volts
Plate Dissipation ³	10.0 Watts
Grid No. 2 Dissipation ³	1.5 Watts
Average Cathode Current.....	60 Ma
Peak Cathode Current.....	210 Ma
Bulb Temperature.....	250 Degrees C
Grid Circuit Resistance	
Fixed Bias.....	2.2 Megohms
Cathode Bias.....	2.2 Megohms

CHARACTERISTICS

Plate Voltage.....	250 Volts
Grid No. 2 Voltage.....	250 Volts
Grid No. 1 Voltage.....	-18.0 Volts
Plate Current.....	35 Ma
Grid No. 2 Current.....	3.0 Ma
Transconductance.....	5100 μ mhos
Amplification Factor.....	8.7
Ec1 for Ib = 0.2 Ma.....	-37 Volts
Instantaneous Plate Knee Values	
Eb = 60 V, Ec2 = 250 V, and Ec1 = 0 V	
Ib = 180 Ma and Ic2 = 30 Ma	

NOTES:

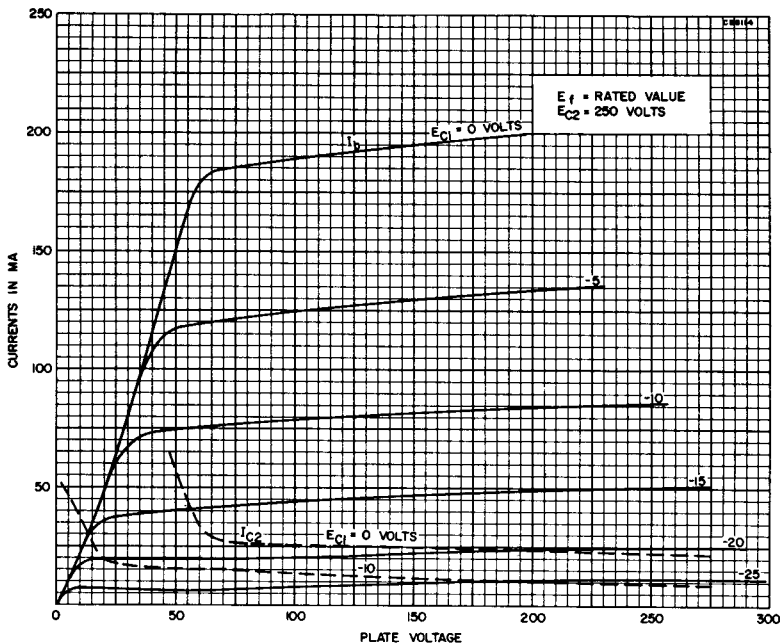
1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage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

APPLICATION

The Sylvania Types 6EM5 and 8EM5 are miniature beam power tubes designed primarily for vertical deflection amplifier service in television receivers employing 110° deflection systems. The 8EM5 features controlled heater warm-up time for operation in receivers employing a series heater string.

SYLVANIA TYPES 6EM5, 8EM5 (Cont'd)

AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

