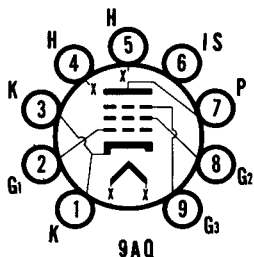


# SYLVANIA TYPES 6EH7 4EH7 3EH7



## MECHANICAL DATA

Bulb.....	T-6 1/2
Base.....	E9-1, Miniature Button 9-Pin
Outline.....	
Max. Seated Height.....	2 5/32 Inches
Basing.....	9AQ
Cathode.....	Coated Unipotential
Mounting Position.....	Any

## ELECTRICAL DATA

### HEATER CHARACTERISTICS

Heater Operation	3EH7 Series	4EH7 Series	6EH7 Parallel
Heater Voltage.....	3.4	4.4	6.3 Volts
Heater Current.....	600	450	300 Ma
Heater Warm-up Time <sup>2</sup> .....	11	11	— Seconds
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total D C and Peak.....			150 Volts
Heater Positive with Respect to Cathode			
Total D C and Peak.....			150 Volts

### DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate.....	.005 $\mu$ mf Max.
Input: g1 to (h+k+g2+g3+l.s.).....	9 $\mu$ mf
Output: p to (h+k+g2+g3+l.s.).....	3 $\mu$ mf

### RATINGS (Design Center Values)

Plate Voltage with Ib = 0 Ma.....	550 Volts Max.
Plate Voltage.....	250 Volts Max.
Grid No. 2 Voltage with Ic2 = 0 Ma.....	550 Volts Max.
Grid No. 2 Voltage.....	250 Volts Max.
Plate Dissipation.....	2.5 Watts Max.
Grid No. 2 Dissipation.....	0.65 Watts Max.
Cathode Current.....	20 Ma Max.
Grid No. 1 Circuit Resistance.....	1.0 Megohm Max.

### CHARACTERISTICS AND TYPICAL OPERATION

Characteristics	
Plate Voltage.....	200 Volts
Grid No. 3 Voltage.....	0 Volts
Grid No. 2 Voltage.....	90 Volts
Grid No. 1 Voltage.....	-2 Volts
Plate Current.....	12 Ma
Grid No. 2 Current.....	4.5 Ma
Transconductance.....	12,500 $\mu$ mhos
Plate Resistance (approx.).....	0.5 Megohm
Grid No. 1 Impedance at 40 MC/S.....	30,000 Ohms <sup>1</sup>

### CHARACTERISTICS AND TYPICAL OPERATION (Continued)

Typical Operation	
Plate Voltage.....	200 Volts
Grid No. 3 Voltage.....	0 Volts
Grid No. 2 Supply Voltage.....	200 Volts
Grid No. 2 Series Resistor.....	22,000 Ohms
Grid No. 1 Voltage.....	-19.5    -9.5    -6.5    -2 Volts
Transconductance.....	125    625    1250    12,500 $\mu$ mhos
Ec1 for a Cross Mod. Factor of 1%.....	450    160    100    — MV (RMS)

### NOTE:

1. Input damping of tube and typical ceramic socket with both cathode leads returned directly to ground is about 11,000 ohms.

## APPLICATION

The Sylvania Types 3EH7, 4EH7 and 6EH7 are T-6 1/2 high transconductance semi-remote cutoff pentodes designed for service as VHF IF amplifiers. Types 3EH7 and 4EH7 have controlled heater warm-up time for series string operation.

# SYLVANIA TYPES 6EH7, 4EH7, 3EH7 (Cont'd)

## AVERAGE TRANSFER CHARACTERISTICS

