

Color Television Type

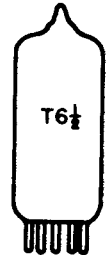
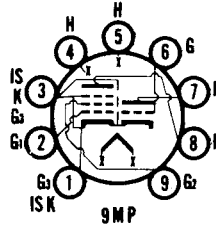
**VHF OSCILLATOR and MIXER**

**6HG8/ECF86**

4HG8, 5HG8/LCF86,  
7HG8/PCF86, 8HG8

**Medium Mu Triode and Sharp Cutoff Pentode**

Construction ..... Miniature T-6½  
Base ..... Button 9 Pin, E9-1  
Basing ..... 9MP  
Outline ..... 6-2  
Maximum Diameter ..... 0.875 In.  
Maximum Seated Height ..... 1.937 In.  
Maximum Overall Height ..... 2.187 In.



**ELECTRICAL DATA**

**HEATER OPERATION**

	8HG8	7HG8/ PCF86	5HG8/LCF86	4HG8	6HG8/ ECF86
Heater Voltage.....	8.0	7.2	5.3	4.5	6.3 Volts
Heater Current .....	300	300	450	600	340 Ma
Heater Warm-up Time ....	—	—	11	11	— Seconds
Maximum Heater-Cathode Voltage					
Heater Negative with Respect to Cathode					
Total DC and Peak.....					200 Volts
Heater Positive with Respect to Cathode					
DC .....					100 Volts
Total DC and Peak.....					200 Volts

**DIRECT INTERELECTRODE CAPACITANCES (Unshielded)**

**Triode Section**

Grid to Plate .....	2.0 Pf
Input: g to (h + k, Pk, Pg3, IS) .....	2.4 Pf
Output: p to (h + k, Pk, Pg3, IS) .....	1.1 Pf

**Pentode Section**

Grid No. 1 to Plate (Max.).....	0.020 Pf
Input: g1 to (h + k, Tk, g3, IS + g2) .....	6.0 Pf
Output: p to (h + k, Pk, Pg3, IS + g2) .....	3.5 Pf
Grid No. 1 to Grid No. 2 .....	1.7 Pf

**Coupling**

Triode Grid to Pentode Plate (Max.) .....	0.014 Pf
Pentode Grid No. 1 to Triode Plate (Max.) .....	0.01 Pf
Pentode Plate to Triode Plate (Max.) .....	0.14 Pf
Pentode Grid No. 1 to Triode Grid (Max.) .....	0.01 Pf

**RATINGS (Design Maximum Rating System)**

	Triode Section	Pentode Section
Plate Voltage (Max.) .....	125	250 Volts
Grid No. 2 Supply Voltage (Max.) .....	—	250 Volts
Grid No. 2 Voltage .....	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.) .....	0	0 Volt
Plate Dissipation (Max.) .....	1.9	2.2 Watts
Grid No. 2 Dissipation (Max.) .....	—	0.55 Watts
Cathode Current (Max.).....	16.5	20 Ma
Grid No. 1 Circuit Resistance (Max.) .....	0.5	— Megohm
Fixed Bias (Max.) .....	—	0.25 Megohm
Cathode Bias (Max.) .....	—	0.5 Megohm

The spacing between the control grids and cathodes are of such a low order of magnitude as to preclude the use of excessive voltages between these elements in commercial tube checkers and shorts indicating devices, particularly where the tube is mechanically excited. The DC or peak AC voltage applied between each sections control grid and cathode must not exceed 30 volts for the pentode or 50 volts for the triode.

**CHARACTERISTICS AND TYPICAL OPERATION**

	<b>Triode Section</b>	<b>Pentode Section</b>
Plate Voltage .....	100	170 Volts
Grid No. 2 Voltage .....	—	150 Volts
Grid No. 1 Voltage .....	-3	-1.2 Volts
Plate Current .....	14	10 Ma
Grid No. 2 Current .....	—	3.3 Ma
Transconductance .....	5500	12,000 $\mu$ mhos
Amplification Factor (g1 to g2) .....	17	70
Plate Resistance.....	3100	350,000 Ohms

**AVERAGE PLATE CHARACTERISTICS  
(Pentode Section)**

