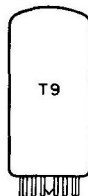
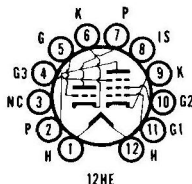


**6AL9****8AL9***Color Television Type***GENERAL PURPOSE AMPLIFIER (T)  
VIDEO AMPLIFIER (P)****High Mu Triode and  
Sharp Cutoff Pentode**

Construction.....Compactron T-9  
 Base .....E12-70  
 Basing .....12HE  
 Outline .....9-59  
 Maximum Diameter .....1.188 In.  
 Maximum Seated Height .....2.250 In.  
 Maximum Overall Height .....2.625 In.

**ELECTRICAL DATA****HEATER OPERATION**

|                                         | <b>6AL9</b> | <b>8AL9</b> |
|-----------------------------------------|-------------|-------------|
| Heater Voltage.....                     | 6.3         | 8.6 Volts   |
| Heater Current .....                    | 820         | 600 Ma      |
| Heater Warm-up Time .....               | —           | 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 .....                        | 2.8 pf |
| Input: g to (h + Tk + PK, g3, I.S.) .....  | 3.6 pf |
| Output: p to (h + Tk + PK, g3, I.S.) ..... | 2.2 pf |

**Pentode Section**

|                                            |         |
|--------------------------------------------|---------|
| Grid No. 1 to Plate (Max.) .....           | 0.16 pf |
| Input: g1 to (h + PK, g3, I.S. + g2) ..... | 17 pf   |
| Output: p to (h + PK, g3, I.S. + g2) ..... | 6.4 pf  |

**RATINGS (Design Maximum Values)**

|                                          | <b>Triode<br/>Section</b> | <b>Pentode<br/>Section</b> |
|------------------------------------------|---------------------------|----------------------------|
| Plate Voltage .....                      | 330                       | 330 Volts                  |
| Grid No. 2 Supply Voltage (Max.) .....   | —                         | 200 Volts                  |
| Positive Grid No. 1 Voltage (Max.) ..... | 0                         | 0 Volt                     |
| Grid No. 2 Dissipation (Max.) .....      | —                         | 1.5 Watts                  |
| Grid No. 1 Circuit Resistance            |                           |                            |
| Fixed Bias (Max.) .....                  | 0.5                       | 0.1 Megohm                 |
| Cathode Bias (Max.) .....                | 1.0                       | 0.25 Megohm                |

## CHARACTERISTICS AND TYPICAL OPERATION

|                                                | Triode<br>Section | Pentode<br>Section |                   |
|------------------------------------------------|-------------------|--------------------|-------------------|
| Plate Voltage .....                            | 200               | 55                 | 250 Volts         |
| Grid No. 1 Voltage .....                       | —                 | 0                  | — Volt            |
| Grid No. 2 Voltage .....                       | —                 | 125                | 150 Volts         |
| Cathode Bias Resistor .....                    | 270               | —                  | 56 Ohms           |
| Plate Current .....                            | 7.6               | 56                 | 28 Ma             |
| Grid No. 2 Current .....                       | —                 | 21                 | 5.6 Ma            |
| Transconductance .....                         | 6300              | —                  | 30,000 $\mu$ mhos |
| Amplification Factor .....                     | 59                | —                  | —                 |
| Plate Resistance (Approx.) .....               | 9200              | —                  | 40,000 Ohms       |
| $E_{c1}$ for $I_b = 100 \mu a$ (Approx.) ..... | -63               | —                  | -5.4 Volts        |