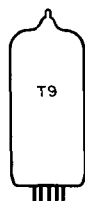
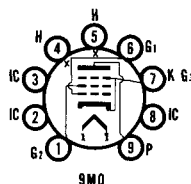


**AUDIO POWER AMPLIFIER****6GM5****Beam Power Pentode**

Construction .....9-T9  
 Base .....Button 9 Pin, E9-68  
 Basing .....9MQ  
 Outline .....9-71  
 Maximum Diameter .....1.188 In.  
 Maximum Seated Height .....2.920 In.  
 Maximum Overall Height .....3.230 In.

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

|                                         |           |
|-----------------------------------------|-----------|
| Heater Voltage .....                    | 6.3 Volts |
| Heater Current .....                    | 800 Ma    |
| 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)**

|                           |         |
|---------------------------|---------|
| Grid No. 1 to Plate ..... | 0.13 Pf |
| Input .....               | 9.0 Pf  |
| Output .....              | 4.0 Pf  |

**RATINGS (Design Maximum Rating System)**

|                                                    |            |
|----------------------------------------------------|------------|
| Plate Voltage (Max.) .....                         | 550 Volts  |
| Grid No. 2 Voltage (Max.) .....                    | 440 Volts  |
| Plate Dissipation (Max.) .....                     | 19 Watts   |
| Grid No. 2 Dissipation (Max.) <sup>(1)</sup> ..... | 3.3 Watts  |
| Cathode Current (Max.) .....                       | 85 Ma      |
| Grid No. 1 Circuit Resistance                      |            |
| Fixed Bias (Max.) .....                            | 0.3 Megohm |
| Self Bias (Max.) .....                             | 1.0 Megohm |

**CHARACTERISTICS AND TYPICAL OPERATION**

|                                         | Pentode Operation<br>S.T.—Class A1 Amp. |        | Ultra-Linear Operation <sup>(2)</sup><br>Class AB1—Push-Pull |              |
|-----------------------------------------|-----------------------------------------|--------|--------------------------------------------------------------|--------------|
| Plate Voltage .....                     | 300                                     | 400    | 400                                                          | 425 Volts    |
| Grid No. 2 Voltage .....                | 300                                     | Note 2 | Note 2                                                       | Note 2 Volts |
| Grid No. 1 Voltage .....                | -10                                     | -20.5  | —                                                            | — Volts      |
| Cathode Resistor .....                  | —                                       | —      | —                                                            | 185 Ohms     |
| Peak A-F Grid Voltage .....             | 10                                      | 41     | 42                                                           | 42 Volts     |
| Zero-Signal Plate Current .....         | 60                                      | 80     | 88                                                           | 88 Ma        |
| Maximum-Signal Plate Current .....      | 75                                      | 138    | 104                                                          | 104 Ma       |
| Zero-Signal Grid No. 2 Current .....    | 8                                       | 11.5   | 13                                                           | 13 Ma        |
| Maximum Signal Grid No. 2 Current ..... | 15                                      | 26.4   | 17.5                                                         | 17.5 Ma      |
| Transconductance .....                  | 10.2K                                   | —      | —                                                            | — $\mu$ mhos |
| Plate Resistance (Approx.) .....        | 29K                                     | —      | —                                                            | — Ohms       |
| Load Resistance .....                   | 3K                                      | —      | —                                                            | — Ohms       |
| Load Resistance (PL to PL) .....        | —                                       | 6600   | 6600                                                         | 6600 Ohms    |
| Power Output .....                      | 11                                      | 32     | 26                                                           | 26 Watts     |
| Total Harmonic Distortion .....         | 13                                      | 1.0    | 2                                                            | 2 Percent    |

**Pentode Operation (Class AB1 Push-Pull Amp)**

|                                         |       |       |      |       |      |           |
|-----------------------------------------|-------|-------|------|-------|------|-----------|
| Plate Voltage .....                     | 300   | 350   | 400  | 450   | 450  | 450 Volts |
| Grid No. 2 Voltage .....                | 300   | 350   | 350  | 350   | 400  | 400 Volts |
| Grid No. 1 Voltage .....                | -12.5 | -15.5 | -16  | -16.5 | -21  | — Volts   |
| Cathode Resistor .....                  | —     | —     | —    | —     | —    | 200 Ohms  |
| Peak A-F Grid Voltage .....             | 25    | 31    | 32   | 33    | 42   | 28 Volts  |
| Zero-Signal Plate Current .....         | 86    | 92    | 85   | 77    | 66   | 82 Ma     |
| Maximum-Signal Plate Current .....      | 116   | 130   | 143  | 153   | 144  | 94 Ma     |
| Zero-Signal Grid No. 2 Current .....    | 12.6  | 13    | 11   | 9.6   | 9.4  | 11.5 Ma   |
| Maximum-Signal Grid No. 2 Current ..... | 26    | 28.6  | 27   | 27    | 30   | 22 Ma     |
| Load Resistance (PL to PL) .....        | 6600  | 6600  | 6600 | 6600  | 6600 | 9000 Ohms |
| Power Output .....                      | 23    | 30    | 37   | 43    | 45   | 28 Watts  |
| Total Harmonic Distortion .....         | 2.5   | 2     | 1.5  | 1.5   | 1.5  | 2 Percent |

**NOTES:**

- (1) Grid No. 2 dissipation may be permitted to reach 6 watts during the periods of maximum input of speech and music signals.
- (2) Grid No. 2 tapped at 40% of the primary winding.