Power Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater Characteristics and Ratings (Design-Maximum Values):
- Voltage (AC or DC): 6.3 ± 0.6 volts
- Current at heater volts = 6.3: 0.760 amp
- Peak heater-cathode voltage:
  - Heater negative with respect to cathode: 200 max. volts
  - Heater positive with respect to cathode: 200 max. volts

Direct Electrode Capacitances
(Approx.):
- Grid No.1 to plate: 0.18 μf
- Grid No.1 to cathode, grid No.3, grid No.2, and heater: 13.0 μf
- Plate to cathode, grid No.3, grid No.2, and heater: 8.0 μf

Characteristics, Class A, Amplifier:
- Plate Supply Voltage: 60 250 250 volts
- Grid-No.3 Connected to cathode at socket
- Grid-No.2 Supply Voltage: 250 125 250 volts
- Grid-No.1 Voltage: 0 – – volts
- Cathode Resistor: – 33 100 ohms
- Mu-Factor, Grid No.2 to Grid No.1: – – 33
- Plate Resistance (Approx.): – 28000 24000 ohms
- Transconductance: – 24000 20000 μmhos
- Plate Current: 150 40 40 ma
- Grid-No.2 Current: 37 4.2 6.2 ma
- Grid-No.1 Voltage (Approx.) for plate μa = 100: – – – 6.4 – 13 volts

Mechanical:
- Operating Position: Any
- Type of Cathode: Coated Unipotential
- Maximum Overall Length: 3-1/16" 2-13/16"
- Maximum Seated Length: 2-7/16" ± 3/32" 0.750" to 0.850" 2-7/16" ± 3/32"
- Diameter: 2-7/16" ± 3/32"
- Dimensional Outline: See General Section
- Bulb: T6-1/2
- Basing Designation for BOTTOM VIEW: 9PU

Pin 1 – Cathode
Pin 2 – Grid No.1
Pin 3 – Grid No.3
Pin 4 – Heater
Pin 5 – Heater
Pin 6 – Grid No.2
Pin 7 – Plate
Pin 8 – Grid No.2
Pin 9 – Grid No.3
VERTICAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC PLATE VOLTAGE</td>
<td>350 max. volts</td>
</tr>
<tr>
<td>PEAK POSITIVE-PULSE PLATE VOLTAGE</td>
<td>2500 max. volts</td>
</tr>
<tr>
<td>GRID No.3 (SUPPRESSOR GRID)</td>
<td>Connect to cathode at socket</td>
</tr>
<tr>
<td>DC GRID-No.2 (SCREEN-GRID) VOLTAGE</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>GRID No.1 (CONTROL-GRID) VOLTAGE</td>
<td>-100 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 INPUT</td>
<td>2 max. watts</td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>10 max. watts</td>
</tr>
</tbody>
</table>

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For fixed-bias operation</td>
<td>1 max. megohm</td>
</tr>
<tr>
<td>For cathode-bias operation</td>
<td>2.2 max. megohm</td>
</tr>
</tbody>
</table>

- The dc component must not exceed 100 volts.
- Without external shield.
- This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.
- As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.
- This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.