**Medium-Mu Triode—Sharp-Cutoff Pentode**

### ELECTRICAL

**Heater Characteristics and Ratings**
- Voltage (AC or DC) ........................................ 6.3 ± 0.6 V
- Current at 6.3 V ........................................... 0.410 A
- Heater-cathode voltage................................. 1.10 max V

**Direct Interelectrode Capacitances (Approx.)**

**Triode Unit**
- \(P_T\) to \(G_T\) .................................................. 1.8 pF
- \(G_T\) to \(K, H\) ............................................. 3.3 pF
- \(P_T\) to all except \(G_{1p}\) ............................... 1.7 pF

**Pentode Unit (With external shield)**
- Input ......................................................... 6.2 pF
- Output ......................................................... 3.5 pF
- \(P_P\) to \(G_{1p}\) ............................................. 0.009 pF
- \(G_{1p}\) to \(G_{2p}\) ........................................... 1.5 pF

**Between Triode and Pentode Units**
- \(P_T\) to \(P_P\) ................................................ 0.025 max pF
- \(P_P\) to \(G_T\) ................................................ 0.01 max pF
- \(P_T\) to \(G_{1p}\) ............................................. 0.01 max pF
- \(G_T\) to \(G_{1p}\) ............................................. 0.01 max pF

### MECHANICAL

**Operating Position** ..................................... Any
**Type of Cathode** ....................................... Coated Unipotential
**Maximum Overall Length** ......................... 2 in
**Maximum Seated Length** .......................... 1-3/4 in
**Diameter** .................................................... 0.750 to 0.875 in
**Envelope** .................................................. JEDEC T6-1/2
**Base** ......................................................... Small-Button Noval 9-Pin (JEDEC No. E9-1)

**TERMINAL DIAGRAM (Bottom View)**

- Pin 1 – Cathode, Pentode
- Grid No.3, Internal Shield
- Pin 2 – Pentode Grid No.1
- Pin 3 – Same as Pin 1
- Pin 4 – Heater
- Pin 5 – Heater
- Pin 6 – Pentode Plate
- Pin 7 – Pentode Grid No.2
- Pin 8 – Triode Plate
- Pin 9 – Triode Grid

### CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th><strong>Triode</strong></th>
<th><strong>Pentode</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100</td>
<td>170</td>
</tr>
<tr>
<td>Grid-No.2 Voltage</td>
<td>-</td>
<td>120</td>
</tr>
<tr>
<td>Grid-No.1 Voltage</td>
<td>-3</td>
<td>-1.2</td>
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<tr>
<td>Amplification Factor</td>
<td>20</td>
<td>55b</td>
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</table>

**RADIO CORPORATION OF AMERICA**

Electronic Components and Devices

Harrison, N. J.

DATA

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<table>
<thead>
<tr>
<th></th>
<th>Triode</th>
<th>Unit</th>
<th>Pentode</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>-</td>
<td>0.35</td>
<td>MΩ</td>
<td></td>
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<tr>
<td>Transconductance</td>
<td>9000</td>
<td>11000</td>
<td>μhmhos</td>
<td></td>
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<tr>
<td>Plate Current.</td>
<td>15</td>
<td>10</td>
<td>mA</td>
<td></td>
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<tr>
<td>Grid No.2 Current.</td>
<td>-</td>
<td>3</td>
<td>mA</td>
<td></td>
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</table>

**DESIGN-MAXIMUM RATINGS**

<table>
<thead>
<tr>
<th></th>
<th>Triode</th>
<th>Unit</th>
<th>Pentode</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Plate-Supply Voltage</td>
<td>600</td>
<td>V</td>
<td>600</td>
<td>V</td>
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<tr>
<td>DC Plate Voltage</td>
<td>140</td>
<td>V</td>
<td>275</td>
<td>V</td>
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<tr>
<td>Grid-No.2 Supply Voltage</td>
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<td>600</td>
<td>V</td>
<td></td>
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<tr>
<td>DC Grid-No.2 (Screen-Grid) Voltage</td>
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<td>275</td>
<td>V</td>
<td></td>
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<tr>
<td>DC Grid-No.1 (Control-Grid) Voltage</td>
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<td>-50</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>Cathode Current</td>
<td>22</td>
<td>mA</td>
<td>20</td>
<td>mA</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td>1.8</td>
<td>W</td>
<td>2.4</td>
<td>W</td>
</tr>
<tr>
<td>Grid-No.2 Input&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-</td>
<td>0.55</td>
<td>W</td>
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**MAXIMUM CIRCUIT VALUES**

Grid-No.1-Circuit Resistance
- For fixed-bias operation | 0.5 | 1 | MΩ |
- For cathode-bias operation | 0.5 | 2.2 | MΩ |

<sup>a</sup> The hum should be minimized in intercarrier receiver applications by limiting the heater-cathode voltage to 100 volts rms, and in AM receivers to 50 volts rms.

<sup>b</sup> Grid No.2 to grid No.1; approximate value.

<sup>c</sup> When control grid bias is between -1.5 and -2 volts, screen dissipation is limited to 0.50 watt. When this bias is greater than -2 volts, maximum screen dissipation is 0.36 watt.