MEDIUM-MU TRIODE—SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathodes:
Voltage (AC or DC) .................................. 6.3 volts
Current .................................................. 0.45 amp
Direct Interelectrode Capacitances:

Triode Unit:
Grid to plate ......................................... 1.8 µf
Grid to cathode and heater ....................... 2.5 µf
Plate to cathode and heater ...................... 1 µf

Pentode Unit:
Grid No.1 to plate .................................. 0.006 max. µf
Grid No.1 to cathode & grid No.3 &
    & internal shield, grid No.2,
    and heater ...................................... 5 µf
Plate to cathode & grid No.3 &
    & internal shield, grid No.2,
    and heater .................................... 3.5 µf
Heater to cathode (Each unit) .................. 3.5 µf

Characteristics, Class A1 Amplifier:

<table>
<thead>
<tr>
<th></th>
<th>Triode Unit</th>
<th>Pentode Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Supply Voltage</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>Grid-No.2 Supply Voltage</td>
<td>–</td>
<td>110</td>
</tr>
<tr>
<td>Cathode Resistor</td>
<td>56</td>
<td>120</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>40</td>
<td>–</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>0.005</td>
<td>0.4</td>
</tr>
<tr>
<td>Transconductance</td>
<td>8500</td>
<td>4800</td>
</tr>
<tr>
<td>Plate Current</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Grid-No.2 Current</td>
<td>–</td>
<td>3.5</td>
</tr>
<tr>
<td>Grid-No.1 Voltage (Approx.)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>for plate µA = 10 ...........</td>
<td>–12</td>
<td>–12</td>
</tr>
</tbody>
</table>

Mechanical:
Operating Position ......................... Any
Maximum Overall Length ...................... 2-3/16"
Maximum Seated Length ...................... 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)  1-9/16" ± 3/32"
Diameter ........................................... 0.750" to 0.875"
Dimensional Outline .......................... See General Section
Bulb .............................................. T6-1/2
Base ............................................. Small-Button Noval 9-Pin (JEDEC No.E9-1)
MEDIUM-MU TRIODE—SHARP-CUTOFF PENTODE

Basing Designation for BOTTOM VIEW. . . . . . . . . . 9AE

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

AMPLIFIER — Class A

Maximum Ratings, Design-Center Values:

<table>
<thead>
<tr>
<th></th>
<th>Triode</th>
<th>Pentode</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>300 max.</td>
<td>300 max.</td>
</tr>
<tr>
<td>GRID-No.2 (SCREEN-GRID)</td>
<td>300 max.</td>
<td></td>
</tr>
<tr>
<td>SUPPLY VOLTAGE</td>
<td>— 0.5 max.</td>
<td></td>
</tr>
<tr>
<td>GRID-No.2 VOLTAGE</td>
<td>— See Grid-No.2 Input</td>
<td></td>
</tr>
</tbody>
</table>

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID) VOLTAGE:
Positive-bias value. . . . . . 0 max. 0 max. volts

GRID-No.2 INPUT:
For grid-No.2 voltages up to 150 volts. . . . — 0.5 max. watt
For grid-No.2 voltages between 150 and 300 volts. . . . — See Grid-No.2 Input Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION. . . . . . 2.7 max. 2.8 max. watts

PEAK HEATER—CATHODE VOLTAGE:
Heater negative with respect to cathode . . . . 90 max. 90 max. volts
Heater positive with respect to cathode . . . . 90 max. 90 max. volts

Maximum Circuit Values:

<table>
<thead>
<tr>
<th></th>
<th>Triode</th>
<th>Pentode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid-No.1 Circuit Resistance:</td>
<td>0.1 max.</td>
<td>0.1 max. megohm</td>
</tr>
</tbody>
</table>
For fixed-bias operation . . . 0.5 max. 0.5 max. megohm
For cathode-bias operation . . . 0.5 max. 0.5 max. megohm

With external shield JEDEC No.35 connected to cathode of unit under test except as noted.
With external shield JEDEC No.35 connected to ground.

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ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY