**Power Pentode**

**NEONOVAL 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 ........ 1.200 amp
- Peak heater-cathode voltage:
  - Heater negative with respect to cathode .......... 200 max. volts
  - Heater positive with respect to cathode .......... 200 max. volts

Direct Interelectrode Capacitances *(Approx.):*

- Grid No.1 to plate .................. 0.9 μf
- Grid No.1 to cathode & grid No.3, grid No.2, and heater ........ 18.0 μf
- Plate to cathode & grid No.3, grid No.2 and heater .......... 7.0 μf

**Mechanical:**

- Operating Position .......................... Any
- Type of Cathode ............................ Coated Unipotential
- Maximum Overall Length .................. 3.230"
- Maximum Seated Length .................... 2.920"
- Length, Base Seat to Bulb Top (Excluding tip) .......... 2.370" to 2.610"
- Diameter .................................. 1.062" to 1.188"
- Bulb ....................................... T9
- Base ..................................... Large-Button Neovalon 9-Pin (JEDEC No.E9-68)
  Basing Designation for BOTTOM VIEW .................. 9EU

![Diagram]( attachment)

**AF POWER AMPLIFIER — Class A₁**

**Maximum Ratings, Design-Maximum Values:**

- PLATE VOLTAGE ......................... 220 max. volts
- GRID-No.2 (SCREEN-GRID) VOLTAGE .......... 140 max. volts
- GRID-No.2 INPUT ....................... 1.4 max. watts
- PLATE DISSIPATION .................... 12 max. watts

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*RADIO CORPORATION OF AMERICA*  
Electron Tube Division  
Harrison, N. J.  
**DATA 1**  
9-62
**Typical Operation and Characteristics:**

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<th>Characteristic</th>
<th>Fixed Bias</th>
<th>Cathode Bias</th>
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<tr>
<td>Plate Supply Voltage</td>
<td>110</td>
<td>200</td>
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<tr>
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<td>110</td>
<td>125</td>
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<td>Grid-No.1 (Control-Grid) Voltage</td>
<td>-7.5</td>
<td>-</td>
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<td>Cathode Resistor</td>
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<td>180</td>
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<tr>
<td>Peak AF Grid-No.1 Voltage</td>
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<td>8.5</td>
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<td>Zero-Signal Plate Current</td>
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<td>Max.-Signal Plate Current</td>
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<td>2.2</td>
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<tr>
<td>Max.-Signal Grid-No.2 Current</td>
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<td>8.5</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>13000</td>
<td>28000</td>
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<tr>
<td>Transconductance</td>
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<tr>
<td>Load Resistance</td>
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<td>Total Harmonic Distortion</td>
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<td>Max.-Signal Power Output</td>
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<td>3.8</td>
</tr>
</tbody>
</table>

**Maximum Circuit Values:**

- **Grid-No.1-Circuit Resistance:**
  - For fixed-bias operation: 0.1 max. megohm
  - For cathode-bias operation: 0.5 max. megohm

*The dc component must not exceed 100 volts.*

*Without external shield.*
** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.
AVERAGE PLATE CHARACTERISTICS

$E_t = 6.3\ \text{VOLTS}$

GRID-No.1 VOLTS = 0

GRID-No.2 VOLTS = $E_t$ = 6.3

PLATE MILLIAMPERES

PLATE VOLTS

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