**GENERAL DATA**

**Electrical:**
- Filament, Coated:
  - Voltage: 2.5 ac or dc volts
  - Current: 2.5 amp
- Direct Inter-electrode Capacitances (Approx.):
  - Grid to Plate: 16.5 μf
  - Grid to Cathode: 7.5 μf
  - Plate to Cathode: 5.5 μf

*With no external shield.*

**Mechanical:**
- Mounting Position: Any
- Maximum Overall Length: 5-3/8"
- Maximum Seated Length: 4-3/4"
- Maximum Diameter: 2-1/16"
- Bulb: ST-16
- Base: Medium-Shell Small 4-Pin
- Basing Designation for BOTTOM VIEW: 40

Pin 1 - Filament
Pin 2 - Plate
Pin 3 - Grid
Pin 4 - Filament

**AMPLIFIER - Class A₁**

**Maximum Ratings, Design-Center Values:**
- PLATE VOLTAGE: 300 max. volts
- PLATE DISSIPATION: 15 max. watts

**Typical Operation and Characteristics:**
- Plate Voltage: 250 volts
- Grid Voltage: -45 volts
- Amplification Factor: 4.2
- Plate Resistance: 800 ohms
- Transconductance: 5250 μhos
- Plate Current: 60 ma.
- Load Resistance: 2500 ohms
- Second Harmonic Distortion: 5 %
- Power Output: 3.5 watts

**Maximum Circuit Values:**
- Grid-Circuit Resistance: { fixed bias 0.05 max. megohm
  cathode bias 0.5 max. megohm

#, #, #: See next page.

*: indicates a change.

OCTOBER 15, 1947
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, PARSIPPANY, NEW JERSEY
# 2A3 POWER TRIODE

**PUSH-PULL AMPLIFIER - Class AB1**

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td>15 max. watts</td>
</tr>
</tbody>
</table>

**Typical Operation:**

Values are for 2 tubes

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Fixed Bias</th>
<th>Cathode Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>-62</td>
<td>-</td>
</tr>
<tr>
<td>Cathode-Bias Resistor</td>
<td>-</td>
<td>780</td>
</tr>
<tr>
<td>Peak AF Grid-to-Grid Voltage</td>
<td>124</td>
<td>156</td>
</tr>
<tr>
<td>Zero-Signal Plate Current</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Max.-Signal Plate Current</td>
<td>147</td>
<td>100</td>
</tr>
<tr>
<td>Effective Load Resistance</td>
<td>3000</td>
<td>5000</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>2.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Power Output</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

**Maximum Circuit Values:**

Grid-Circuit resistance: \{ fixed bias 0.05 max. megohm, cathode bias 0.5 max. megohm \}

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![Average Characteristics Graph](image)

---

**October 15, 1947**

**Tube Department**

Radio Corporation of America, Harrison, New Jersey
AVERAGE PLATE CHARACTERISTICS

$E_f = 2.5$ VOLTS D.C.

PLATE MILLIAMPERES

MARCH 9, 1933

RCA RADIotron DIVISION
RCA MANUFACTURING COMPANY, INC.

92S-523381
AVERAGE CHARACTERISTICS

$E_f = 2.5$ VOLTS D.C.

PLATE VOLTS

PLATE RESISTANCE (PONMS)

MUTUAL CONDUCTANCE (mhos)

AMPLITUDE FACTOR

JUNE 12, 1933

RCA RADIOFON DIVISION
RCA MANUFACTURING COMPANY, INC.

925-532681