**BEAM POWER TUBE**
7-PIN MINIATURE TYPE

**GENERAL DATA**

**Electrical:**
Heater, for Unipotential Cathode:
- Voltage: 25 ... ac or dc volts
- Current: 0.3 ... amp

Direct Inter-electrode Capacitances (Approx.):
- Grid No.1 to plate: 0.6 \( \mu F \)
- Grid No.1 to cathode & grid No.3, grid No.2 and heater: 13 \( \mu F \)
- Plate to cathode & grid No.3, grid No.2 and heater: 8.5 \( \mu F \)

**Mechanical:**
Operating Position: Any
Maximum Overall Length: 2-5/8" 2-3/8"
Maximum Seated Length: 2-3/8" 3/4" 2-3/8"
Length, Base Seat to Bulb Top (Excluding tip): 2" ± 3/32" 2-3/8"
Maximum Diameter: See General Section 3/4" 2-3/8"

**Basing Designation for BOTTOM VIEW:** 7CV

![Diagram of pin configuration]

**AMPLIFIER — Class A**

**Maximum Ratings, Design—Center Values:**
- PLATE VOLTAGE: 135 max. volts
- GRID-No.2 (SCREEN-GRID) VOLTAGE: 117 max. volts
- GRID-No.1 (CONTROL-GRID) VOLTAGE:
  - Positive bias value: 0 max. volts
  - GRID-No.2 INPUT: 1.25 max. watts
  - PLATE DISSIPATION: 6 max. watts
- PEAK HEATER—CATHODE VOLTAGE:
  - Heater negative with respect to cathode: 200 max. volts
  - Heater positive with respect to cathode: 200* max. volts
- BULB TEMPERATURE (At hottest point on bulb surface): 220 max. °C

**Typical Operation and Characteristics:**
- Plate Voltage: 120 volts
- Grid-No.2 Voltage: 110 volts
- Grid-No.1 Voltage: -8 volts

*°, *: see next page.

7-58

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

TENTATIVE DATA
## BEAM POWER TUBE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak AF Grid–No.1 Voltage</td>
<td>8 volts</td>
</tr>
<tr>
<td>Zero-Signal Plate Current</td>
<td>49 ma</td>
</tr>
<tr>
<td>Max.—Signal Plate Current</td>
<td>50 ma</td>
</tr>
<tr>
<td>Zero-Signal Grid–No.2 Current</td>
<td>4 ma</td>
</tr>
<tr>
<td>Max.—Signal Grid–No.2 Current</td>
<td>8.5 ma</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>10000 ohms</td>
</tr>
<tr>
<td>Transconductance</td>
<td>7500 μmhos</td>
</tr>
<tr>
<td>Load Resistance</td>
<td>2500 ohms</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>10 %</td>
</tr>
<tr>
<td>Max.—Signal Power Output</td>
<td>2.3 watts</td>
</tr>
</tbody>
</table>

### Maximum Circuit Values:

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

* Without external shield.
* The dc component must not exceed 100 volts.
AVERAGE CHARACTERISTICS

$E_f = 25 \text{ VOLTS}$

$\text{GRID-N2 VOLTS} = 110$

PLATE (Ib) OR GRID-N2 (Ic2) MILLIAMPERES

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92CM-8908R2