### GENERAL DATA

**Electrical:**
Heater, for Unipotential Cathode:
- Voltage: 6.3 ac or dc volts
- Current: 0.3 ± 6% amp
- Warm-up time (Average): 11 sec

*For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.*

**Direct Interelectrode Capacitances:**

<table>
<thead>
<tr>
<th></th>
<th>Without External Shield</th>
<th>With External Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid No.1 to plate</td>
<td>0.025 max.</td>
<td>0.015 max. µf</td>
</tr>
<tr>
<td>Grid No.1 to cathode &amp; internal shield &amp; grid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.3, grid No.2, and heater.</td>
<td>6.5</td>
<td>6.5 µf</td>
</tr>
<tr>
<td>Plate to cathode &amp; internal shield &amp; grid No.3, grid No.2, and heater.</td>
<td>2</td>
<td>3 µf</td>
</tr>
</tbody>
</table>

**Characteristics, Class A1 Amplifier:**
- Plate-Supply Voltage: 125 volts
- Grid No.3 Voltage: −3 volts
- Grid-No.2 Supply Voltage: 125 volts
- Cathode Resistor: −56 ohms
- Plate Resistance (Approx.): 0.28 megohm
- Transconductance: 8000 µhos
- Plate Current: 2.8 ma
- Grid-No.2 Current: 3.7 ma
- Grid-No.1 Voltage (Approx.) for plate µa = 20: −6.5 volts

**Mechanical:**
- Operating Position: Any
- Maximum Overall Length: 2-1/8'
- Maximum Seated Length: 1-7/8'
- Length, Base Seat to Bulb Top [Excluding tip]: 1-1/2" ± 3/32" (excluding tip)
- Diameter: 0.650" to 0.750"

*See General Section*

**Bulb Outline:** See T5-1/2

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0, 1: See next page.

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**4-59 ELECTRON TUBE DIVISION**

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

**TENTATIVE DATA**
**6CB6-A**

**SHARP-CUTOFF PENTODE**

Basing Designation for Bottom View. ................ 7CM

Pin 1—Grid No.1  
Pin 2—Cathode  
Pin 3—Heater  
Pin 4—Heater  
Pin 5—Plate

Pin 6—Grid No.2  
Pin 7—Grid No.3, Internal Shield

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**AMPLIFIER — Class A**

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>330 max. volts</td>
</tr>
<tr>
<td>GRID-No.3 [SUPPRESSOR-GRID] VOLTAGE</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 [SCREEN-GRID] SUPPLY VOLTAGE</td>
<td>330 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 VOLTAGE</td>
<td>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</td>
</tr>
<tr>
<td>GRID-No.1 [CONTROL-GRID] VOLTAGE:</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 INPUT:</td>
<td></td>
</tr>
<tr>
<td>For grid-No.2 voltages up to 165 volts</td>
<td>0.55 max. watt</td>
</tr>
<tr>
<td>For grid-No.2 voltages between 165 and 330 volts</td>
<td>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>2.3 max. watts</td>
</tr>
<tr>
<td>PEAK HEATER—CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>200 max. volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200* max. volts</td>
</tr>
</tbody>
</table>

**Maximum Circuit Values:**

<table>
<thead>
<tr>
<th>Parameter</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>0.25 max. megohm</td>
</tr>
<tr>
<td>For cathode-bias operation</td>
<td>1 max. megohm</td>
</tr>
</tbody>
</table>

© With external shield JEDEC No.316 connected to cathode.
\* Connected to cathode at socket.
★ The dc component must not exceed 100 volts.
AVERAGE CHARACTERISTICS

$E_0 = 6.3$ VOLTS
GRID NO.3 CONNECTED TO CATHODE AT SOCKET.
GRID-NO.2 VOLTS = 125

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

$E_f = 6.3$ VOLTS
PLATE VOLTS = 125
GRID N3 CONNECTED TO CATHODE AT SOCKET,
GRID N2 VOLTS = 125

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92CM-9853