**6660/6BA6**
**REMOTE-CUTOFF PENTODE**
**7-PIN MINIATURE TYPE**

*For use in mobile communications equipment*

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### GENERAL DATA

**Electrical:**
- Heater, for Unipotential Cathode:
  - Voltage: 6.3 ± 20% ac or dc volts
  - Current at 6.3 volts: 0.3 amp
- Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th>Without External Shield</th>
<th>With External Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid No. 1 to plate</td>
<td>0.0035 max.</td>
</tr>
<tr>
<td>Grid No. 1 to cathode, grid No. 3 &amp; internal shield, grid No. 2, and heater...</td>
<td>5.5 μf</td>
</tr>
<tr>
<td>Plate to cathode, grid No. 3 &amp; internal shield, grid No. 2, and heater...</td>
<td>5 μf</td>
</tr>
</tbody>
</table>

### Characteristics, Class A Amplifier:
- Heater Voltage: 6.3 volts
- Plate Supply Voltage: 100 volts
- Grid No. 3: Connected to cathode at socket
- Grid-No. 2 Supply Voltage: 100 volts
- Cathode Resistor: 68 ohms
- Plate Resistance (Approx.): 0.25 megohm
- Transconductance: 4300 μmhos
- Plate Current: 10.8 ma
- Grid-No. 2 Current: 4.4 ma
- Grid-No. 1 Voltage (Approx.) for transconductance = 40 μmhos: –20 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"
- Diameter: 0.650" to 0.750"
- Dimensional Outline: See General Section
- Bulb: T5-1/2
- Base: Small-Button Miniature 7-Pin (JEDEC No. E7-1)
  Basing Designation for BOTTOM VIEW: 7BK

![Diagram of pin connections](image)

- Pin 1 - Grid No. 1
- Pin 2 - Grid No. 3 Internal Shield
- Pin 3 - Heater
- Pin 4 - Heater
- Pin 5 - Plate
- Pin 6 - Grid No. 2
- Pin 7 - Cathode

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ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
**AMPLIFIER — Class A**

**Maximum Ratings, Design—Maximum Values:**

PLATE VOLTAGE: 330 max. volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE: 330 max. volts
GRID-No.2 VOLTAGE: See Grid-No.2 Input Rating Chart at front of Receiving Tube Section
GRID-No.1 (CONTROL-GRID) VOLTAGE:
  - Negative-bias value: 55 max. volts
  - Positive-bias value: 0 max. volts
GRID-No.2 INPUT:
  - For grid-No.2 voltages up to 165 volts: 0.65 max. watt
  - For grid-No.2 voltages between 165 and 330 volts: See Grid-No.2 Input Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION: 3.3 max. watts
PEAK HEATER-CATHODE VOLTAGE:
  - Heater negative with respect to cathode: 100 max. volts
  - Heater positive with respect to cathode: 100 max. volts

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*When the heater is operated from storage-battery-with-charger supply or similar supplies, the normal battery-voltage fluctuation may be as much as 35 per cent or more. Although such variation in heater voltage is permissible for short periods, reliability can be increased with improved supply-voltage regulation.*

*With external shield JEDEC No.316 connected to cathode.*

**SPECIAL RATINGS & PERFORMANCE DATA**

**Heater-Cycling Life Performance:**

This test is performed on a sample lot of tubes from each production run. A minimum of 2000 cycles of intermittent operation is applied under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

**Transconductance at Reduced Heater Voltage:**

**Average Value:** 3500 μmhos

With heater volts = 5, plate supply volts = 250, grid No.3 connected to cathode at socket, grid-No.2 supply volts = 100, and cathode resistor (ohms) bypassed = 68.