Type 6661/6BH6 is designed specifically for use in mobile communications equipment. The 6661/6BH6 may be operated without serious degradation under normal variations in supply voltage as encountered with automotive electrical systems. Also consistent with the requirements of the equipment the tube is capable of withstanding appreciable on-off cycling.

**MECHANICAL DATA**

- **Bulb**: T-5½
- **Base**: E7-1, Miniature Button 7-Pin
- **Outline**: 5-2
- **Basing**: 7CM
- **Cathode**: Coated Unipotential
- **Mounting Position**: Any

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**

- **Heater Voltage**: 6.3 Volts
- **Heater Current**: 150 Ma
- **Heater-Cathode Voltage (Design Center Values)**
  - Heater Negative with Respect to Cathode: 100 Volts Max.
  - Heater Positive with Respect to Cathode: 100 Volts Max.

**DIRECT INTERELECTRODE CAPACITANCES**

- **Grid to Plate**: 0.0035 μF Max.
- **Input**: 5.4 μF
- **Output**: 4.4 μF

**RATINGS (Design Center Values)**

- **Plate Voltage**: 330 Volts Max.
- **Grid No. 2 Supply Voltage**: 330 Volts Max.
- **Grid No. 2 Voltage**: See Rating Chart
- **Plate Dissipation**: 3.3 Watts Max.
- **Grid No. 2 Dissipation**: 0.55 Watt Max.
- **Negative Grid No. 1 Voltage**: 55 Volts Max.
- **Positive Grid No. 1 Voltage**: 0 Volts Max.

**CHARACTERISTICS AND TYPICAL OPERATION**

- **Class A1 Amplifier**
  - **Plate Voltage**: 100 250 Volts
  - **Grid No. 3 Voltage**: Connected to Cathode at Socket
  - **Grid No. 2 Voltage**: 100 150 Volts
  - **Cathode Bias Resistor**: 200 100 Ohms
  - **Plate Current**: 3.6 7.4 Ma
  - **Grid No. 2 Current**: 1.4 2.6 Ma
  - **Transconductance**: 3400 4600 μmhos
  - **Plate Resistance (Approx.)**: 0.7 1.4 Megohm
  - **Ec1 for Ib = 10 μA (Approx.)**: -5.0 -7.7 Volts

**SPECIAL TESTS AND RATINGS**

- **Heater-Cycling Ratings**
  - Cycles of Intermittent Operation (Minimum): 2000 Cycles
  - Ef = 7.5 volts cycled for one minute on and one minute off.
  - Eb + Ec2 + Ec3 + Ec1 = 0 Volts.
  - Ekh = 135 volts with heater positive with respect to cathode.
  - Average Transconductance at Reduced Heater Voltage: 3600 μmhos
  - Ef = 5.0 volts, Eb = 250 volts, Ec3 = 0 volts, Ec2 = 150 volts
  - and Rk = 100 ohms (by-passed)
NOTE:

1. When operated from automotive electrical systems, the heater may be subjected to voltage variations as great as ±20 percent. Although such extremes in heater voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.

AVERAGE PLATE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Plate Voltage</th>
<th>Current (Ib)</th>
<th>Current (IC2)</th>
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<tbody>
<tr>
<td>0</td>
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<tr>
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