RADIO VALVE COMPANY OF CANADA LIMITED

TORONTO, CANADA

Electronic Tube 6006 - Preliminary Technical Information

The 6006 is a metal, high frequency, semi-remote cutoff pentode, similar to the 6SG7. It is designed for dependable operation under conditions of shock and vibration usually found in aircraft and mobile applications.

TECHNICAL INFORMATION

GENERAL

Electrical Data

Cathode - Coated Unipotential

Heater Voltage (AC or DC) 6.3 volts
Heater Current 0.3 amp.

Mechanical Data

Envelope - Metal shell MT-8
Base - Small Wafer Octal 8-pin
Maximum Overall Length - 2 5/8"
Maximum Seated Height - 2 1/16"
Maximum Diameter - 1 5/16"
Mounting Position - Any

Direct Interelectrode Capacitances *
Grid to Plate 0.004 uuf Max.
Input 8.5 uuf
Output 7.0 uuf

* Shell connected to cathode.

Maximum and Minimum Ratings are Design Center Values

AMPLIFIER

Plate Voltage 300 max. volts
Screen Voltage 200 max. volts
Screen Supply Voltage 300 max. volts
Grid Voltage 0 min. volts
Plate Dissipation 3 max. watts
Screen Dissipation 0.6 max. watt
Maximum Vibration Output 250 RMS millivolts

This output is measured across a load resistor of 2,000 ohms as the tube is vibrated with a total sinusoidal motion of 0.08 inches at 25 cycles per second.

Conditions of Test:

Heater Voltage 6.3 volts
Plate Voltage 250 volts
Grid #1 Voltage -1.0 volt
Grid #2 Voltage 125 volts
Shell Voltage 0 volts

Where the cathode is not directly connected to the heater, the heater-cathode potential should be kept as low as possible.
Typical Operation and Characteristics - Class A1 Amplifier:

<table>
<thead>
<tr>
<th></th>
<th>100</th>
<th>250</th>
<th>250</th>
<th>volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100</td>
<td>250</td>
<td>250</td>
<td>volts</td>
</tr>
<tr>
<td>Screen Voltage</td>
<td>100</td>
<td>125</td>
<td>150</td>
<td>volts</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>-1</td>
<td>-1</td>
<td>-2.5</td>
<td>volts</td>
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<tr>
<td>Suppressor</td>
<td>Connected to pin #3 internally</td>
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<td></td>
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<tr>
<td>Plate Resistance (Approx.)</td>
<td>0.25</td>
<td>0.9</td>
<td>#</td>
<td>megohm</td>
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<tr>
<td>Transconductance</td>
<td>4100</td>
<td>4700</td>
<td>4000</td>
<td>umhos</td>
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<tr>
<td>Grid Bias *</td>
<td>-11.5</td>
<td>-14</td>
<td>-17.5</td>
<td>volts</td>
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<tr>
<td>Plate Current</td>
<td>8.2</td>
<td>11.8</td>
<td>9.2</td>
<td>ma.</td>
</tr>
<tr>
<td>Screen Current</td>
<td>3.2</td>
<td>4.4</td>
<td>3.4</td>
<td>ma.</td>
</tr>
</tbody>
</table>

# Greater than 1 megohm.
* Approximate, for transconductance of 40 micromhos.

**BASE CONNECTIONS**

- Pin 1: Shell and Internal Shield
- Pin 2: Heater
- Pin 3: Cathode and Grid #3
- Pin 4: Grid #1
- Pin 5: Cathode
- Pin 6: Grid #2
- Pin 7: Heater
- Pin 8: Plate

**BASING DIAGRAM**

[Diagram showing base connections and labeling (SKB)]

August 22, 1950