The 7433 is a reliable subminiature pentode for use in guided weapons.

**PHYSICAL SPECIFICATIONS**

- **Base**: 8 lead subminiature with flying leads (B8D/F)
- **Bulb**: Glass T-3
  - Maximum bulb length: 1.5" (38.1mm)
  - Maximum bulb diameter: 0.4" (10.16mm)
  - Minimum lead length: 1.5" (38.1mm)

**BASED DIAGRAM**

![Diagram]

**BASED CONNECTIONS**

- Lead No. 1: Grid No. 1
- No. 2: Grid No. 3
- No. 3: Heater
- No. 4: Plate
- No. 5: Grid No. 2
- No. 6: Heater
- No. 7: Cathode
- No. 8: Plate

**MECHANICAL RATINGS**

- Maximum shock (short duration): 500 g
- Maximum vibration (100hrs, max. duration) (10 mins, max. duration): 5 g, 20 g
- Maximum operating altitude: 60,000 ft.
- Maximum bulb temperature: 165 °C
- Ambient storage temperature range: -60 to +85 °C

*This rating assumes that the vibration frequency components are varying continuously over the band 10 to 1000 c/s in a random manner.

**GENERAL ELECTRICAL DATA**

- Heater voltage: 6.3 V
- Heater current: 200

**ELECTRODE CAPACITANCES** (measured with external shield)

- **Input**: 5.0 pF
- **Output**: 4.5 pF
- **Plate to grid No. 1**: <0.015 pF

**MAXIMUM RATINGS** (absolute values)

- Plate supply voltage: 350 V
- Plate voltage: 190 V
- Plate dissipation: 1.5 W
- Grid No. 2 supply voltage: 350 V
- Grid No. 2 voltage: 190 V
- Grid No. 2 dissipation: 1.0 W
- Cathode current: 14 mA
- Heater-cathode voltage: 100 V
- Grid No. 1 circuit resistance (fixed bias): 100 kΩ
  - (self bias): 500 kΩ
<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate voltage</td>
<td>100   V</td>
</tr>
<tr>
<td>Grid No.3 voltage</td>
<td>0     V</td>
</tr>
<tr>
<td>Grid No.2 voltage</td>
<td>100   V</td>
</tr>
<tr>
<td>Grid No.1 voltage</td>
<td>-2    V</td>
</tr>
<tr>
<td>Plate current</td>
<td>7.5   mA</td>
</tr>
<tr>
<td>Grid No.2 current</td>
<td>2.5   mA</td>
</tr>
<tr>
<td>Mutual conductance</td>
<td>5500  micromhos</td>
</tr>
<tr>
<td>Amplification factor ($\mu g_1-g_2$)</td>
<td>28</td>
</tr>
<tr>
<td>*Maximum noise output voltage</td>
<td>300   mV</td>
</tr>
</tbody>
</table>

*Measured across a plate resistor of 22kΩ with applied minimum vibrational acceleration of 20g in the frequency range of 60 c/s to 1000 c/s.