References and notations contained herein are taken from Military Specifications for Electron tubes MIL-E-1D 31 March '58.

Description: Gaseous Discharge Diode, C Band (Note 11)

Ratings:

<table>
<thead>
<tr>
<th></th>
<th>Iₖ</th>
<th>Iₖ'</th>
<th>TA</th>
<th>T Bulb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td>mA</td>
<td>mAdc</td>
<td>°C</td>
<td>°C</td>
</tr>
<tr>
<td>Maximum:</td>
<td>-</td>
<td>-</td>
<td>+85</td>
<td>+125</td>
</tr>
<tr>
<td>Minimum:</td>
<td>-</td>
<td>-</td>
<td>-55</td>
<td>-</td>
</tr>
<tr>
<td>Test Conditions:</td>
<td>0</td>
<td>250</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

Cathode: Filamentary Type.
Dimensions: Per Outline Drawing (Fig. 1)
Base: Per Outline Drawing (Fig. 1)
Mounting Position: Any

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>. . . . .</td>
<td>Qualification:</td>
<td>Required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>Holding Period:</td>
<td>168 hours.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9.18.1.10</td>
<td>Carbon Drop:</td>
<td>. . . . . .</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9.20.3</td>
<td>*Vibration:</td>
<td>No Voltages, Note 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.10.5.1</td>
<td>Filament Voltage: Iₖ = 170mAdc Eₖ = 10Vdc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.13.2</td>
<td>Tube Voltage Drop: Notes 1, 2 Eₖ = 80 90Vdc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. . . . .</td>
<td>Excess Noise Ratio: F = 5650 Mc. Notes 3, 4, 5, 10 Nₑ = 1 15.05 15.45 Db</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. . . . .</td>
<td>Match (1):</td>
<td>VSWR 1.12:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>. . . . .</td>
<td>Match (2):</td>
<td>VSWR 1.12:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>. . . . .</td>
<td>Intermittent Life Test</td>
<td>Notes 1, 3, 8, 9 2500 Cycles (One min. on, Two min. off) Preheat time = 2 to 3 sec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.11.4</td>
<td>Intermittent Life Test End Points</td>
<td>Nₑ = 1 15.0 15.50 Db</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 6. The frequency specified is that of the Signal Generator.
Note 7. Excess noise ratio should be measured by comparison with an approved standard.
Note 8. The tube shall be tested at an ambient temperature of +85°C.
Note 9. Intermittent Life Test end points shall apply.
Note 10. The Excess Noise Ratio (Nₑ = 1) is defined in Db as Nₑ = 10 log (Tₑ / Tₑ) where Tₑ is the effective electron temperature.
Note 11. The noise frequencies generated by this tube cover a broad band of frequencies. This bandwidth is limited only by the type of mount used. This tube is normally used with a mount in RG-49/U or RG-50/U wave guide, at a 10 degree angle in the E plane. Other wave guide sizes may be used with properly adapted mounts.

---

**Fig. 1**

DIA. 4 MIN.

MINOR FLAT 2.625

MINOR FLAT.

579 MAX. DIA.

MIN. . . .

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.

MINOR FLAT.