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

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

Ratings:

<table>
<thead>
<tr>
<th></th>
<th>If</th>
<th>lb</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>
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<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

-----------|------|------------|------|------|
...        | Qualification: | Required |     |      |
4.5        | Holding Period: | 168 hours |     |      |
4.9.18.1.10| Carton Drop: | ... |     |      |
4.9.20.3   | *Vibration: | No Voltages, Note 9. |     |      |
4.10.5.1   | Filament Voltage: | $I_f = 300\text{mA}$, $E_I \ldots 10\text{Vdc}$ |     |      |
1.13.2     | Tube Voltage Drop: | Note 1,2, $E_{T0}80$ | $90\text{Vdc}$ |      |
...        | Excess Noise Ratio: | $F = 3300\text{Mc}$, Notes 3,4,5,10. | $N_{e-1} 15.05$ | $15.45\text{dB}$ |
...        | *Match (1): | $F = 3270\text{Mc}$, Notes 4,6. | VSWR | 1.15:1 |
...        | *Match (2): | $F = 3270\text{Mc}$, $I_b = 0\text{mA}$, Notes 4,6. | VSWR | 1.15:1 |
...        | Intermittent Life Test: | Notes 1,3,8,9, (One min. on, two min. off) Preheat time = 2 to 3 sec. | 2500 | Cycles |
4.11.4     | Intermittent Life Test End Points | $N_{e-1} 15.0$ | 15.50 | 15.50 |

Note 8. The tube shall be tested at an ambient temperature of $+85^\circ\text{C}$.
Note 9. Intermittent life test end points shall apply.
Note 10. The Excess Noise Ratio ($N_{e-1}$) is defined in db as $N_{e-1}$ = $10 \log \left( \frac{T_e - 1}{T_e} \right)$ where $T_e$ 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 wave guide, at a 10 degree angle in the E plane. Other wave guide sizes may be used with properly adapted mounts.

![Diagram](image-url)