**RF AMPLIFIER MODEL**  
**TM9769**

### Features
- Higher Output Power: +23 dBm Typical
- Low Noise Figure: <2.5 dB Typical
- Operating Temp. - 55 °C to +85 °C

### Specifications

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>TYPICAL Ta= 25 °C</th>
<th>MIN/MAX Ta= -55 °C to +85 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>10 - 1400 MHz</td>
<td>10 - 1300 MHz</td>
</tr>
<tr>
<td>Gain (dB)</td>
<td>12.5</td>
<td>11.5 Min.</td>
</tr>
<tr>
<td>Gain Flatness (dB)</td>
<td>+/- 0.2</td>
<td>+/- 0.5 Max.</td>
</tr>
<tr>
<td>Power @ 1 dB Comp. (dBm)</td>
<td>+23</td>
<td>+21.5 Min.</td>
</tr>
<tr>
<td>Reverse Isolation (dB)</td>
<td>-20</td>
<td>-18 Max.</td>
</tr>
<tr>
<td>VSWR In</td>
<td>&lt;1.5:1^</td>
<td>1.9:1 Max.^</td>
</tr>
<tr>
<td>VSWR Out</td>
<td>&lt;1.7:1</td>
<td>2.0:1 Max.</td>
</tr>
<tr>
<td>Noise Figure (dB)</td>
<td>&lt;2.5</td>
<td>3.5 Max.</td>
</tr>
<tr>
<td>Power Vdc</td>
<td>15</td>
<td>+15 Min.</td>
</tr>
<tr>
<td>mA</td>
<td>100</td>
<td>110 Max.</td>
</tr>
</tbody>
</table>

### Typical Performance Data

- **Gain (dB)**
- **Reverse Isolation (dB)**
- **Noise Figure (dB)**
- **1 dB Comp. (dBm)**
- **Input VSWR**
- **Output VSWR**

**Legend**
- +25 °C
- +85 °C
- - - - - - -55 °C

### Typical Intermodulation Performance at 25 °C
- Second Order Harmonic Intercept Point ...... +54 dBm (Typ.)
- Second Order Two Tone Intercept Point ....... +49 dBm (Typ.)
- Third Order Two Tone Intercept Point .......... +36 dBm (Typ.)

### Maximum Ratings
- Ambient Operating Temperature .............. -55°C to +100 °C
- Storage Temperature .......................... -62°C to +125 °C
- Case Temperature .............................. +125 °C
- DC Voltage .................................... +17 Volts
- Continuous RF Input Power ........................ +20 dBm
- Short Term RF Input Power ... 250 Milliwatts (1 Minute Max.)
- Maximum Peak Power .............................. 0.5 Watt (3 μsec Max.)

Note: Care should always be taken to effectively ground the case of each unit.

^0.3 higher at 10 MHz

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Available as:  
- TM9769, 4 Pin TO-8 (T4)  
- TN9769, 4 Pin Surface Mount (SM3)  
- FP9769, 4 Pin Flatpack (FP4)  
- BX9769, Connectorized Housing (H1)