RF/Microwave Amplifier

Features
- Low Noise Figure: 1.4 dB
- No External Circuitry Needed
- RoHS Compliant Model Available
- Unconditionally Stable
- EAR99

Technical Specifications

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>TYPICAL Ta = +25 ºC</th>
<th>MIN/MAX Ta = -55ºC to +85 ºC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>500 – 2500 MHz</td>
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</tr>
<tr>
<td>Gain (dB)</td>
<td>16.5</td>
<td>15 Min.</td>
</tr>
<tr>
<td>Power @ 1 dB Comp. (dBm)</td>
<td>+14.5</td>
<td>+13 Min.</td>
</tr>
<tr>
<td>Reverse Isolation (dB)</td>
<td>-20</td>
<td>---</td>
</tr>
<tr>
<td>VSWR In</td>
<td>1.5:1</td>
<td>2.0:1 Max.</td>
</tr>
<tr>
<td>VSWR Out</td>
<td>1.5:1</td>
<td>2.0:1 Max.</td>
</tr>
<tr>
<td>Noise Figure (dB)</td>
<td>1.4</td>
<td>2.5 Max.</td>
</tr>
<tr>
<td>Power Vdc</td>
<td>+5</td>
<td>+5</td>
</tr>
<tr>
<td>mA</td>
<td>35</td>
<td>50 Max.</td>
</tr>
</tbody>
</table>

1) Care should always be taken to effectively ground the case of each unit
2) Typical values are measured at 25°C, but not guaranteed.
3) Package drawings below are for reference only.

Typical Intermodulation Performance at 25 ºC

- Second Order Harmonic Intercept Point: +42 dBm (Typ.)
- Second Order Two Tone Intercept Point: +37 dBm (Typ.)
- Third Order Two Tone Intercept Point: +27dBm (Typ.)

Note:
Intercept Values Measured at 1500 MHz.

Absolute Maximum (No Damage) Ratings

- Operating Temperature: -55ºC to +100 ºC
- Storage Temperature: -62ºC to +125ºC
- Case Temperature: +125 ºC
- DC Voltage: +8 Volts
- Continuous RF Input Power: +13 dBm
- Short Term RF Input Power: 200 Milliwatts (1 Minute Max.)
- Maximum Peak Power: 0.5 Watt (3 µsec Max.)
Typical Performance Graphs

Model # TM3128

Gain

Noise Figure

Output Power (1 dB Compression)

Reverse Isolation

Input VSWR

Output VSWR
## Instructions

<table>
<thead>
<tr>
<th>Grounding Instructions</th>
<th>Care should be taken to effectively ground each unit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revisions</td>
<td>API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.</td>
</tr>
<tr>
<td>Min./Max. Values</td>
<td>Specifications are guaranteed when tested in a 50 Ω (ohm) system.</td>
</tr>
</tbody>
</table>

Typical performance graphs and values are measured at 25°C, but not guaranteed.

1) Outlines drawings below are for reference only.

**NOTES:**
1. HOUSING: ALUMINUM
2. FINISH: NICKEL

![Outlines drawings](image-url)