RF/Microwave Amplifier

Features
- Low Noise Figure: 1.5 dB
- Wide 100 MHz to 500 MHz Bandwidth
- Environmental Screening Available
- Unconditionally Stable

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>100 MHz to 500 MHz</td>
<td>100 MHz to 500 MHz</td>
</tr>
<tr>
<td>Gain (dB)</td>
<td>29.5</td>
<td>27 Min.</td>
</tr>
<tr>
<td>Power @ 1 dB Comp. (dBm)</td>
<td>19.5</td>
<td>17.5 Min.</td>
</tr>
<tr>
<td>Reverse Isolation (dB)</td>
<td>45</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>1.5</td>
<td>2.5 Max.</td>
</tr>
<tr>
<td>Power Vdc</td>
<td>+5</td>
<td>+5</td>
</tr>
<tr>
<td>mA</td>
<td>185</td>
<td>195 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: + 60 dBm (Typ.)
- Second Order Two Tone Intercept Point: + 54 dBm (Typ.)
- Third Order Two Tone Intercept Point: + 32 dBm (Typ.)

Note: Measured at 250 MHz at 25C.

Absolute Maximum (No Damage) Ratings

- Operating Temperature: -55 ºC to +100 ºC
- Storage Temperature: -62 ºC to +125 ºC
- Case Temperature: +125 ºC
- DC Voltage: +8 Volts
- Continuous RF Input Power: +18 dBm
- Short Term RF Input Power: 200 Milliwatts (1 Minute Max.)
- Maximum Peak Power: 0.5 Watt (3 μsec Max.)
NOTES:

1. HOUSING: 70/30 CN/NI

ELECTRONIC GRADE

FIELD REPLACEABLE SMA CONNECTORS

GND

DC INPUT

MTG SURFACE

4X 2-56 UNC - 2B \( \pm \) .13

\( \phi \).018 PIN TYP.

WITHOUT SMA CONNECTORS

CAUTION

THIS ASSEMBLY CONTAINS PARTS SENSITIVE TO DAMAGE BY ELECTROSTATIC DISCHARGE (ESD). USE ESD PRECAUTIONARY PROCEDURES WHEN TOUCHING, REMOVING OR INSERTING

SEE SEPARATE PARTS LIST IN ELECTRONIC STORAGE

DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED

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SPECTRUM MICROWAVE, INC
2707 Black Lake Place
Philadelphia, PA 19154-1008 (USA)

OUTLINE, H1L

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REV: P1

DATE OF SHEET: 1 OF 1
Model # TN7917

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.