

RF AMPLIFIER

MODEL **TM5338**

Available as: TM5338, 4 Pin TO-8 (T4)
 TN5338, 4 Pin Surface Mount (SM3)
 FP5338, 4 Pin Flatpack (FP4)
 BX5338, Connectorized Housing (H1)

Features

- High Output Power: +25 dBm Typical
- Low Noise Figure: 2.7 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency | 5 - 150 MHz | 5 - 150 MHz |
| Gain (dB) | 15 | 14.0 Min. |
| Power @ 1 dB Comp. (dBm) | +25 | +23.0 Min. |
| Reverse Isolation (dB) | - 20 | - 19 Max. |
| VSWR In | <1.5:1 | 2.0:1 Max. |
| VSWR Out | <1.25:1 | 2.0:1 Max. |
| Noise figure (dB) | 2.7 | 3.5 Max. |
| Power Vdc | +12 | +12 |
| mA | 88 | 100 Max. |

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

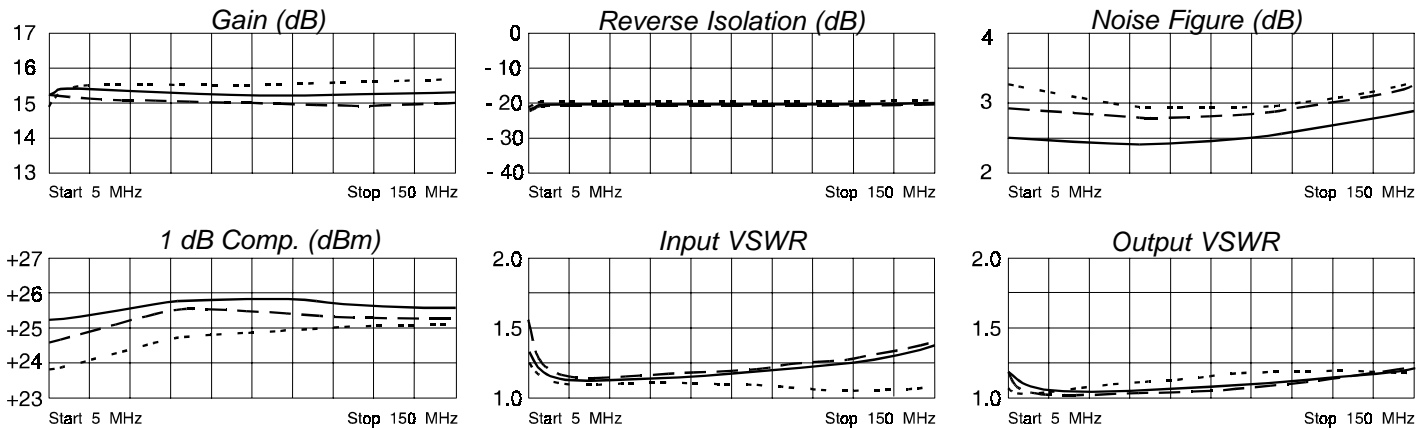
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +50 (Typ.)
 Second Order Two Tone Intercept Point +44 (Typ.)
 Third Order Two Tone Intercept Point +36 (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power 50 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.5 Watt
 (3 µsec Max.)

Typical Performance Data



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

Linear S-Parameters

| FREQ. MHz | S11 | | S21 | | S12 | | S22 | |
|--------------|-----|------|------|------|-----|------|-----|------|
| | Mag | Deg | Mag | Deg | Mag | Deg | Mag | Deg |
| 5 | .16 | - 96 | 5.81 | -164 | .09 | -171 | .09 | - 42 |
| 25 | .06 | -140 | 5.85 | 169 | .10 | 167 | .02 | - 90 |
| 50 | .07 | -153 | 5.83 | 154 | .10 | 151 | .02 | -105 |
| 75 | .07 | -155 | 5.78 | 139 | .10 | 135 | .02 | -116 |
| 100 | .09 | -162 | 5.78 | 125 | .10 | 120 | .04 | -152 |
| 125 | .12 | -164 | 5.80 | 110 | .10 | 105 | .06 | 179 |
| 150 | .17 | -169 | 5.80 | 94 | .10 | 89 | .09 | 149 |



2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 ···· FAX 215-464-4001 3/13/03
www.DataSheet4U.com