

# RF AMPLIFIER

## MODEL *TM3052*

Available as: TM3052, 4 Pin TO-8 (T4)  
 TN3052, 4 Pin Surface Mount (SM3)  
 BX3052, Connectorized Housing (H1)

### Features

- Medium Gain: 11 dB Typical
- Output Power: +23 dBm Typical
- Operating Temp. - 20 °C to + 65 °C
- Environmental Screening Available

### Specifications

| CHARACTERISTIC              | TYPICAL<br>Ta= 25 °C | MIN/MAX<br>Ta = -20 °C to +65 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency                   | 1200-1600 MHz        | 1200-1600 MHz                    |
| Gain (dB)                   | 11                   | 8.5 Min.                         |
| Power @ 1 dB<br>Comp. (dBm) | +23                  | +19 Min.                         |
| Reverse<br>Isolation (dB)   | -17                  | -16 Max.                         |
| VSWR In                     | <1.75:1              | 2.0:1 Max.                       |
| Out                         | <1.75:1              | 2.0:1 Max.                       |
| Noise Figure (dB)           | 4.0                  | 5.5 Max.                         |
| Power Vdc                   | +15                  | +15 Min.                         |
| mA                          | 90                   | 100 Max.                         |

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

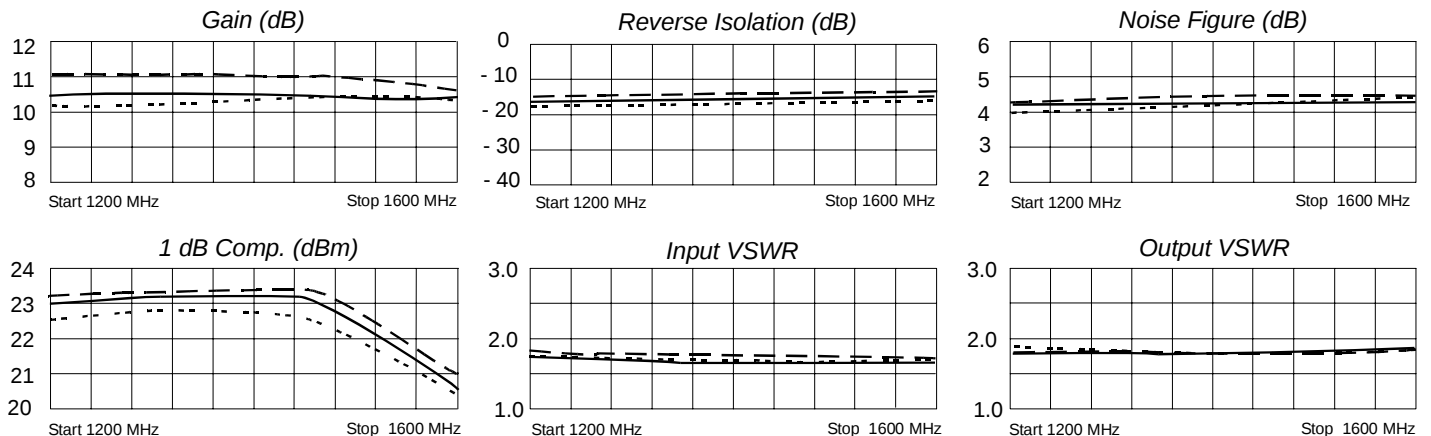
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +52 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +35 dBm (Typ.)

### Maximum (No Damage) 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 ..... + 15 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    --- + 65 °C    ..... -20 °C

### Linear S-Parameters

| Freq.<br>MHz | ---S11--- |      | ---S21--- |     | ---S12--- |     | ---S22--- |     |
|--------------|-----------|------|-----------|-----|-----------|-----|-----------|-----|
|              | Mag       | Deg  | Mag       | Deg | Mag       | Deg | Mag       | Deg |
| 1200         | .24       | -109 | 3.25      | 114 | .13       | -46 | .17       | 5   |
| 1300         | .24       | -115 | 3.24      | 108 | .13       | -51 | .18       | 4   |
| 1400         | .23       | -120 | 3.27      | 102 | .13       | -56 | .17       | -2  |
| 1500         | .23       | -127 | 3.29      | 95  | .12       | -63 | .19       | -14 |
| 1600         | .22       | -134 | 3.29      | 90  | .12       | -67 | .21       | -15 |



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 04/07/06

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001