

RF AMPLIFIER

MODEL *TM3057*

Available as: TM3057, 4 Pin TO-8 (T4)
 TN3057, 4 Pin Surface Mount (SM3)
 BX3057, Connectorized Housing (H1)

Features

- Output Power: +19.5 dBm Typical
- Medium Gain: 17.5 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 - 500 MHz | 10 - 500 MHz |
| Gain (dB) | 17.5 | 16.5 Min. |
| Power @ 1 dB Comp. (dBm) | +19.5 | +18.0 Min. |
| Reverse Isolation (dB) | -20 | -17 Max. |
| VSWR In | <1.8:1 | 2.0:1 Max. |
| Out | <1.8:1 | 2.0:1 Max. |
| Noise Figure (dB) | 2.5 | 4.0 Max. |
| Power Vdc | +15 | +15 |
| mA | 49 | 55 Max. |

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

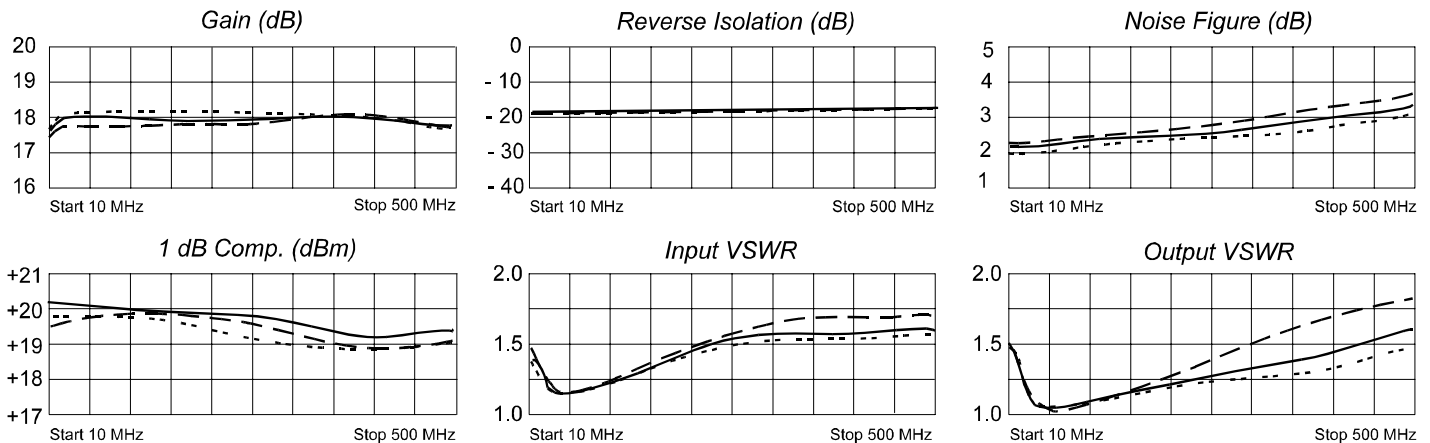
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +50 dBm (Typ.)
 Second Order Two Tone Intercept Point +44 dBm (Typ.)
 Third Order Two Tone Intercept Point +35 dBm (Typ.)

Absolute 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 +13 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 | 0.26 | -49 | 7.41 | -158 | 0.09 | -158 | 0.25 | -54 |
| 55 | 0.12 | -61 | 7.80 | 160 | 0.09 | 159 | 0.05 | -37 |
| 104 | 0.14 | -92 | 7.76 | 139 | 0.09 | 137 | 0.06 | -32 |
| 154 | 0.16 | -122 | 7.75 | 118 | 0.09 | 116 | 0.07 | -40 |
| 203 | 0.18 | -149 | 7.75 | 98 | 0.09 | 96 | 0.08 | -50 |
| 253 | 0.21 | -175 | 7.76 | 78 | 0.10 | 76 | 0.10 | -62 |
| 302 | 0.22 | 159 | 7.78 | 57 | 0.10 | 56 | 0.12 | -75 |
| 352 | 0.23 | 134 | 7.80 | 36 | 0.10 | 37 | 0.15 | -89 |
| 401 | 0.23 | 107 | 7.83 | 14 | 0.10 | 17 | 0.18 | -104 |
| 451 | 0.23 | 79 | 7.82 | -8 | 0.10 | -2 | 0.21 | -119 |
| 500 | 0.22 | 48 | 7.75 | -31 | 0.11 | -22 | 0.25 | -136 |



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