

# RF AMPLIFIER

## MODEL *TM3031*

Available as: TM3031, 4 Pin TO-8 (T4)  
 TN3031, 4 Pin Surface Mount (SM3)  
 FP3031, 4 Pin Flatpack (FP4)  
 BX3031, Connectorized Housing (H1)

### Features

- n Low 3.3 Volt Operation
- n Low Noise Figure: <2.2 dB Typical
- n Environmental Screening Available

### Specifications

| CHARACTERISTIC              | TYPICAL<br>Ta= 25 °C | MIN/MAX<br>Ta = -10 °C to +60 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency                   | 100 - 500 MHz        | 100 - 500 MHz                    |
| Gain (dB)                   | 13                   | 12.5 Min.                        |
| Power @ 1 dB<br>Comp. (dBm) | +8.5                 | +7.0 Min.                        |
| Reverse<br>Isolation (dB)   | -19                  | -18.0 Max.                       |
| VSWR In                     | <1.85:1              | 2.0:1 Max.                       |
| Out                         | <1.75:1              | 2.0:1 Max.                       |
| Noise Figure (dB)           | <2.2                 | 2.5 Max.                         |
| VSWR Vdc                    | +3.3                 | +3.3 Min.                        |
| mA                          | 19.2                 | 20 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 ..... +35 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +29 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +20 dBm (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 8 Volts  
 Continuous RF Input Power ..... + 6 dBm  
 Short Term RF Input Power ..... 20 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.1 Watt (3 µsec Max.)

### Typical Performance Data

