

# RF AMPLIFIER

## MODEL *TM6599*

Available as: TM6599, 4 Pin TO-8 (T4)  
 TN6599, 4 Pin 0.450" Sq. Surface Mount (SM3)  
 BX6599, Connectorized Housing (H1)

Preliminary

### Features

- High Gain: 29 dB Typical
- High Output Power: +23 dBm Typical
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	29	28 Min.
Gain Flatness (dB)	±0.5	±0.75
Power @ 1 dB Comp. (dBm)	+23	+20 Min.
Reverse Isolation (dB)	-40	-35 Max.
3rd Order Two-Tone * Intercept Point (dBm)	35	30 Min.
2nd Order Two-Tone * Intercept Point (dBm)	45	40 Min.
2nd Order Harmonic * Intercept Point (dBm)	50	45 Min.
VSWR In	1.8:1	2.0:1 Max.
Out	1.8:1	2.0:1 Max.
Noise Figure (dB)	3.5	4.5 Max.
Power Vdc	+15	+15
mA	130	135 Max.

### Typical Intermodulation Performance at 25 ° C

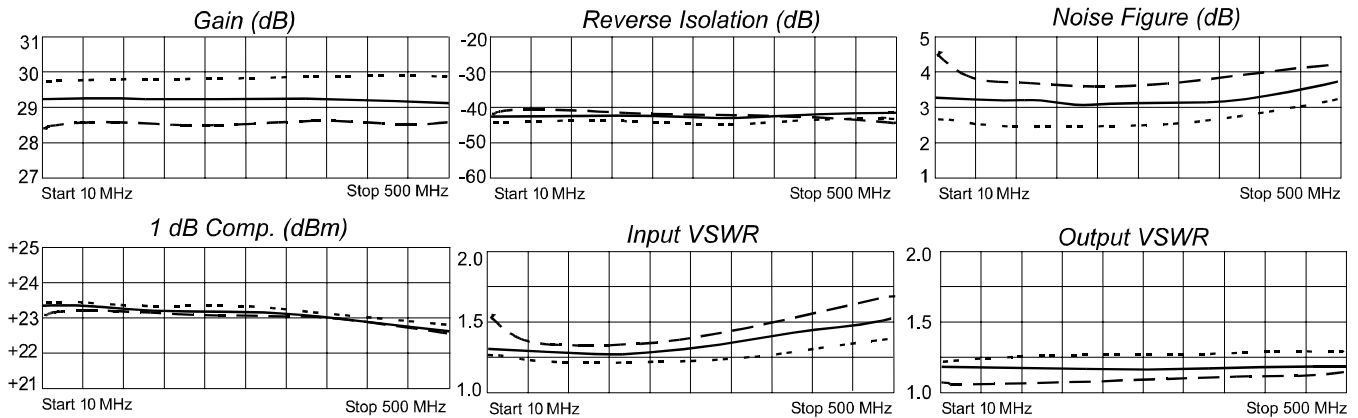
Second Order Harmonic Intercept Point.....+50 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+45 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+35 dBm (Typ.)

### (Absolute) Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Maximum Operating Case Temperature ..... + 125 °C  
 DC Voltage.....+17 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.)

Note: Care should always be taken to effectively ground the case of each unit.  
 \*Tested at Power Output = +10 dBm each tone.

### Typical Performance Data



Legend ——— +25 °C    - - - +85 °C    ····· -40 °C

