

# RF AMPLIFIER

## MODEL *TM3023*

Available as: TM3023, 4 Pin TO-8 (T4)  
 TN3023, 4 Pin Surface Mount (SM3)  
 FP3023, 4 Pin Flatpack (FP4)  
 BX3023, Connectorized Housing (H1)

### Features

- High Gain: 29 dB Typical
- Low Noise Figure: <1.8 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	100 - 200 MHz	100 - 200 MHz
Gain (dB)	29	27 Min.
Power @ 1 dB Comp. (dBm)	+12.5	+10 Min.
Reverse Isolation (dB)	-33	-31 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.60:1	2.0:1 Max.
Noise Figure (dB)	<1.8	2.0 Max.
Power Vdc	+15	+15
mA	15	17 Max.

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

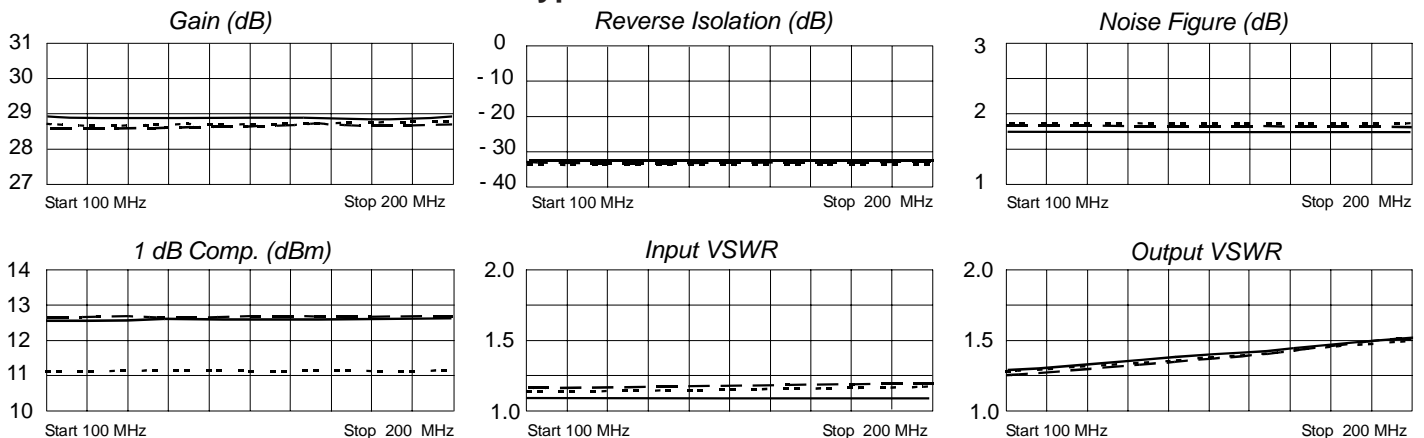
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +31 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +26 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... + 24 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 ..... + 18 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



### Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
120	.02	22	25.87	122	.0188	-13	.09	-105
140	.04	24	25.66	112	.0207	-14	.1	-114
160	.05	9	25.49	102	.0186	-17	.13	-125
180	.06	-6	25.42	92	.0195	-15	.15	-135
200	.09	-21	25.31	82	.0202	-21	.16	-145



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