

RF AMPLIFIER

MODEL *TM3033*

Available as: TM3033, 4 Pin TO-8(T4)
 TN3033, 4 Pin Surface Mount (SM3)
 BX3033, Connectorized Housing (H1)

Features

- n High Output Power: +22 dBm Typical
- n High IP3: +36 dBm Typical
- n Operating Temp. - 55 °C to +85 °C
- n Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	30 - 1000 MHz	30 - 1000 MHz
Gain (dB)	11.5	10.0 Min.
Power @ 1 dB Comp. (dBm)	+22	+20.5 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<4.0	6.0 Max.
VSWR Vdc	+15	+15
mA	90	95 Max.

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

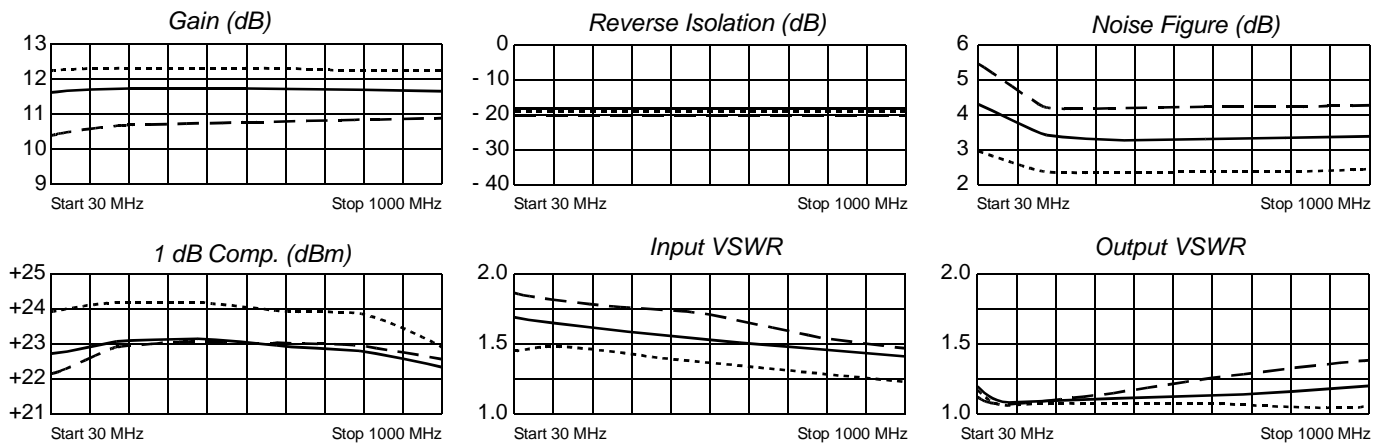
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.... +50 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +45 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +36 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 + 13 dBm
 Short Term RF Input Power.... 100 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
30	.20	-11	4.19	-178	.11	1	.04	136
50	.20	-12	4.22	180	.11	-1	.03	151
100	.20	-13	4.25	176	.11	-5	.01	150
200	.19	-23	4.23	170	.11	-12	.01	-125
400	.19	-47	4.26	158	.12	-28	.05	-122
600	.21	-95	4.32	150	.17	-54	.15	-157
800	.09	-110	5.03	127	.05	158	.06	123
1000	.13	-97	4.36	115	.06	-31	.04	1



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 05/13/04

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