

RF AMPLIFIER

MODEL *TM3039*

Available as: TM3039, 4 Pin TO-8 (T4)
 TN3039, 4 Pin Surface Mount (SM3)
 FP3039, 4 Pin Flatpack (FP4)
 BX3039, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.5 dB Typical
- High Output Power: +22 dBm 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 - 220 MHz	100 - 220 MHz
Gain (dB)	18	17.5 Min.
Power @ 1 dB Comp. (dBm)	+22	+19 Min.
Reverse Isolation (dB)	-19.5	-19 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	2.5	3.5 Max.
Power Vdc	+12	+12
mA	80	87 Max.

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

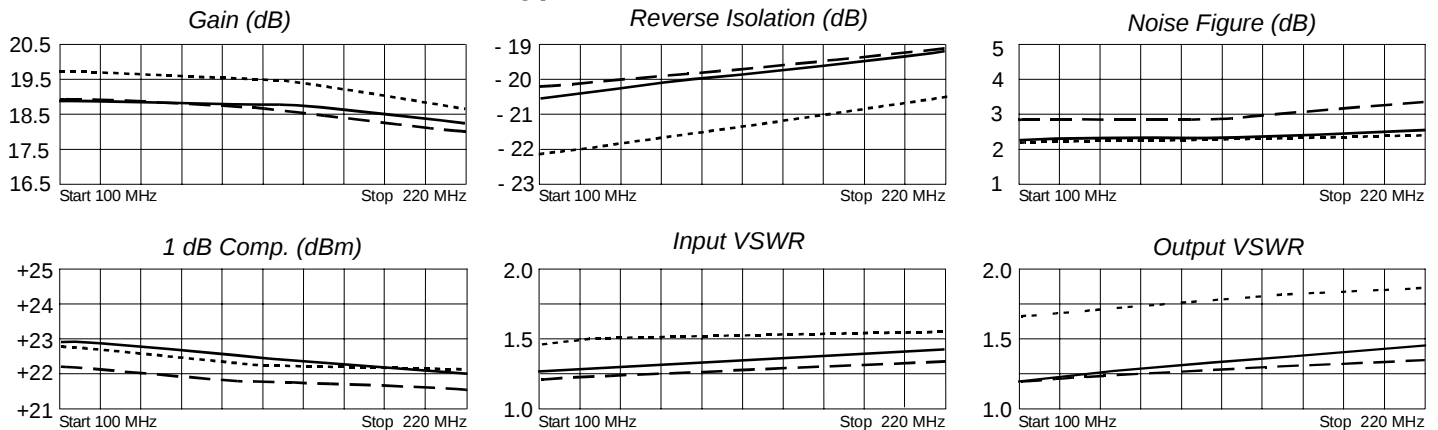
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.... +58 dBm (Typ.)
 Second Order Two Tone Intercept Point.... +53 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +39 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 + 15 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
100	.14	-114	8.54	152	.0924	151	.10	-89
120	.16	-119	8.54	146	.0908	145	.11	-99
140	.18	-124	8.45	140	.0910	140	.12	-109
160	.21	-133	8.41	134	.0913	134	.13	-117
180	.23	-138	8.25	129	.0923	129	.13	-126
200	.25	-143	8.23	123	.0937	123	.14	-133
220	.27	-144	8.13	117	.0916	118	.14	-142

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Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 05/17/04

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

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