RF AMPLIFIER
MODEL *TM3075*

Available as: TM3075, 4 Pin TO-8 (T4)
TN3075, 4 Pin Surface Mount (SM3)
FP3075, 4 Pin Flatpack (FP4)
BX3075, Connectorized Housing (H1)

Features

- High Gain: 22.5 dB Typical
- Low Noise Figure: <2.4 dB Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +32 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +26 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +22 dBm (Typ.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	22.5	21.0 Min.
Power @ 1 dB Comp. (dBm)	+10	+8 Min.
Reverse Isolation (dB)	-24	-21 Max.
VSWR In Out	<1.5:1 <1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	<2.4	3.0 Max.
Power Vdc mA	+12 22	+12 25 Max.

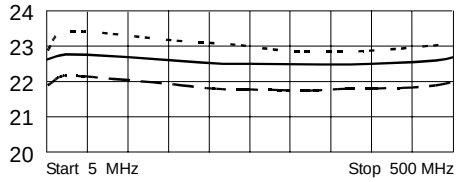
Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

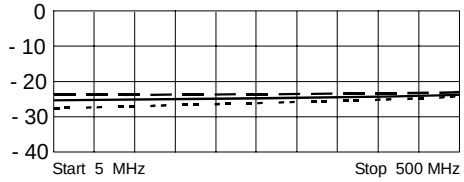
Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 15 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Typical Performance Data

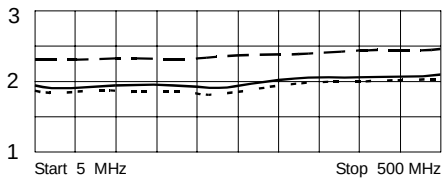
Gain (db)



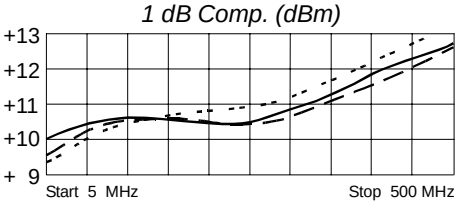
Reverse Isolation (dB)



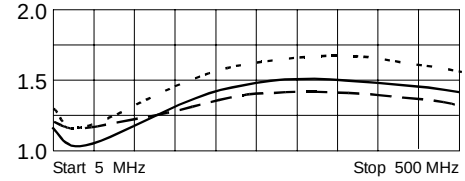
Noise Figure (dB)



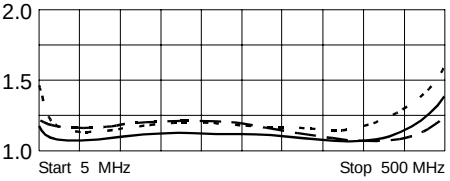
1 dB Comp. (dBm)



Input VSWR



Output VSWR



Legend ——— *+ 25 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
5	.07	-127	13.16	-174	.05	10	.09	112
50	.06	136	13.33	165	.05	-4	.02	29
100	.08	96	13.17	150	.05	-8	.03	-19
200	.12	38	12.80	119	.05	-19	.06	-44
300	.15	-9	12.33	89	.06	-35	.09	-54
400	.14	-52	12.16	58	.06	-48	.13	-51
500	.09	-126	12.35	24	.06	-69	.22	-38

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