

RF AMPLIFIER

MODEL *TM5101*

Available as: TM5101, 4 Pin TO-8 (T4)
 TN5101, 4 Pin Surface Mount (SM3)
 FP5101, 4 Pin Flatpack (FP4)
 BX5101, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.75 dB Typical
- Medium Gain: 13 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	13	12 Min. / 14 Max.
Power @ 1 dB Comp. (dBm)	+7.5	+6.0 Min.
Reverse Isolation (dB)	-15.5	-15 Max.
VSWR In	1.25:1	2.0:1 Max.
Out	1.40:1	2.0:1 Max.
Noise Figure (dB)	2.75	4.0 Max.
Power Vdc	+15	+15
mA	17	20 Max.

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

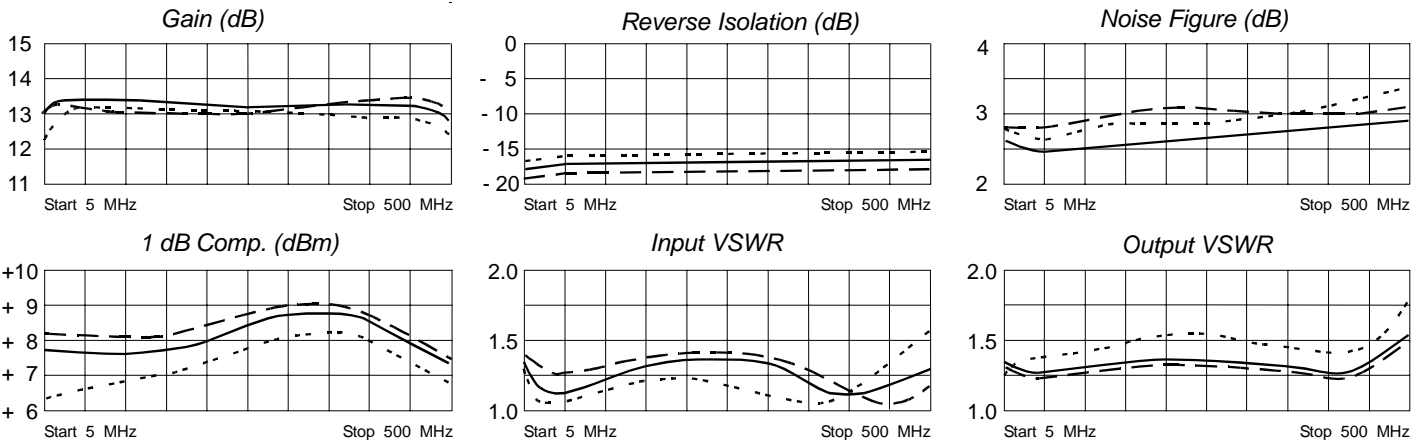
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +36 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +31 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +21 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 + 18Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power.... 100 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.2 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
5	.13	-48	4.53	-165	.13	-164	.15	-35
50	.08	11	4.64	167	.14	167	.12	5
100	.11	22	4.61	153	.14	150	.14	11
200	.15	8	4.58	126	.14	122	.18	-5
300	.13	-21	4.58	98	.15	94	.16	-42
400	.03	-99	4.62	66	.16	66	.12	-121
500	.16	112	4.38	32	.17	36	.26	155



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