

RF AMPLIFIER

MODEL *TM3106*

Available as: TM3106, 4 Pin TO-8 (T4)
 TN3106, 4 Pin Surface Mount (SM3)
 BX3106, Hermetic Seal SMA Replaceable
 Female Connectors (H1L)

Features

- High IP3: +42 dBm Typical
- High Second Order Harmonics: +65 dBm Typical
- Unconditionally Stable
- RoHs Compliant

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	500 - 2500 MHz	500 - 2500 MHz
Gain (dB)	11.0	10.0 Min.
Power @ 1 dB Comp. (dBm)	24	23 Min.
Reverse Isolation (dB)	-22	-19 Max.
VSWR In	1.8:1	2.0:1 Max.
Out	1.8:1	2.0:1 Max.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc	+15	+15
mA	195	210 Max.

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

Typical Intermodulation Performance at 25 °C*

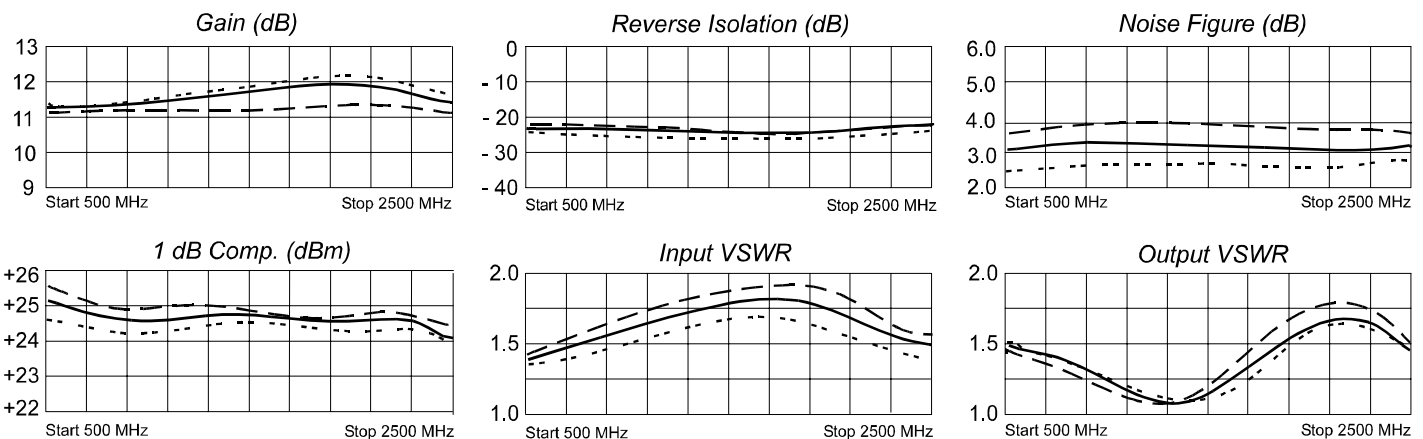
Second Order Harmonic Intercept Point.....+65 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+60 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+42 dBm (Typ.)

*Measured at 2500 MHz

Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature-55°C to +100 °C
 Storage Temperature-62°C to +125 °C
 Maximum Operating Case Temperature +125 °C
 DC Voltage.....+17 Volts
 Continuous RF Input Power.....+15 dBm
 Maximum Peak Power.....+20 dBm (1 µsec Max.)

Typical Performance Data



Legend ——— +25 °C - - - - +85 °C ······ -40 °C

Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
500	0.17	-149	3.72	114	0.07	-40	0.20	99
700	0.19	-165	3.73	85	0.07	-58	0.17	72
900	0.22	180	3.75	56	0.07	-76	0.12	41
1100	0.24	163	3.78	27	0.06	-94	0.07	1
1300	0.26	145	3.81	-3	0.06	-111	0.04	-90
1500	0.28	124	3.85	-33	0.06	-126	0.09	-169
1700	0.29	102	3.88	-65	0.06	-143	0.16	154
1900	0.28	75	3.91	-97	0.06	-158	0.22	125
2100	0.26	42	3.94	-132	0.07	-178	0.26	97
2300	0.22	-2	3.88	-169	0.07	158	0.25	68
2500	0.19	-67	3.71	150	0.08	132	0.18	38



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