

RF AMPLIFIER

MODEL *TM6117*

Available as: TM6117, 4 Pin TO-8 (T4)
 TN6117, 4 Pin Surface Mount (SM3)
 FP6117, 4 Pin Flatpack (FP4)
 BX6117, Connectorized Housing (H1)

Features

- Low Noise Figure: <1.3 dB Typical
- Medium Third Order Intercept: +28 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	5 - 250 MHz	5 - 250 MHz
Gain (dB)	8.2	7.0 Min.
Power @ 1 dB Comp. (dBm)	+10	+9.0 Min.
Reverse Isolation (dB)	-11	-10 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise Figure (dB)	<1.3	2.0 Max.
Power Vdc	+15	+15
mA	12	13 Max.

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

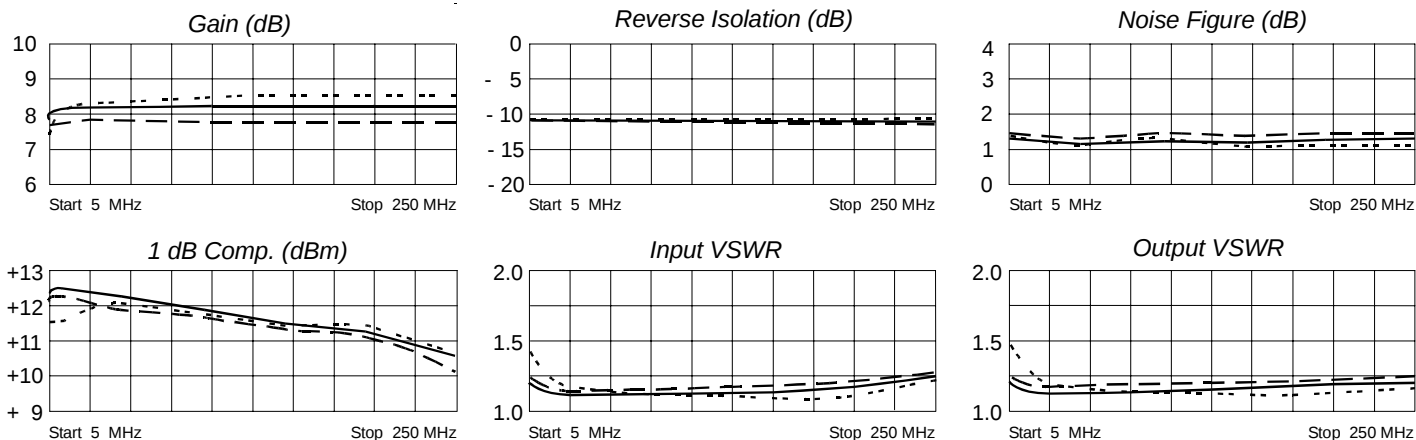
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +48 dBm (Typ.)
 Second Order Two Tone Intercept Point +43 dBm (Typ.)
 Third Order Two Tone Intercept Point +28 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 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.08	167	2.50	9	.28	9	.09	166
10	.07	164	2.53	3	.28	3	.07	160
50	.05	176	2.55	-10	.29	-10	.06	164
100	.05	-177	2.56	-22	.28	-22	.06	154
150	.06	-163	2.56	-34	.28	-32	.07	149
200	.08	-155	2.56	-46	.27	-44	.08	145
250	.12	-155	2.56	-58	.27	-56	.10	147



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 06/22/04

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