

# 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.
VSWR 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.

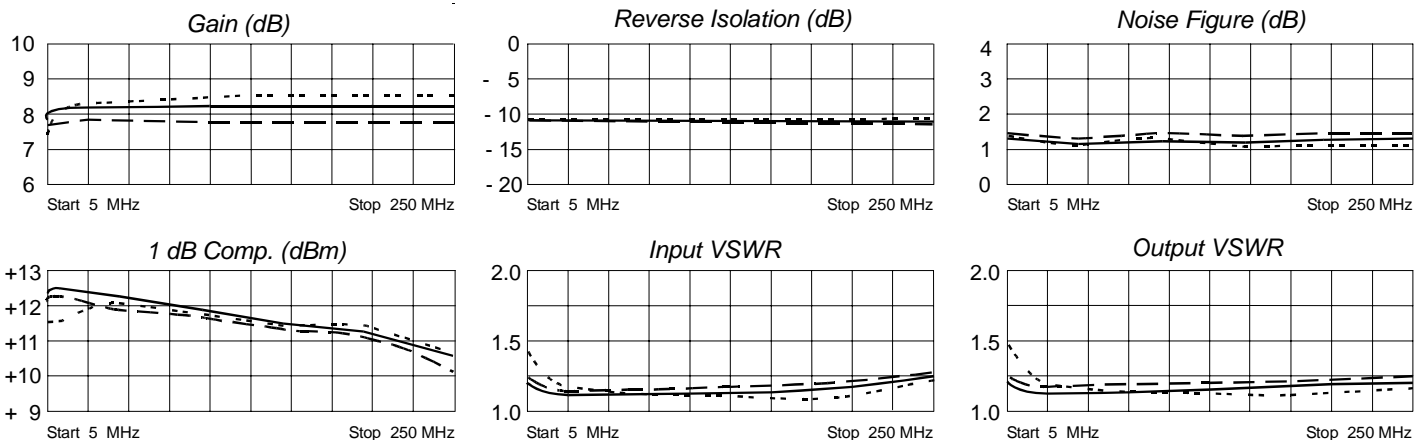
### Typical Intermodulation Performance at 25 ° C

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



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	.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



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