

RF AMPLIFIER

MODEL *TM5817*

Available as: TM5817, 4 Pin TO-8 (T4)
 TN5817, 4 Pin Surface Mount (SM3)
 FP5817, 4 Pin Flatpack (FP4)
 BX5817, Connectorized Housing (H1)
 PN5817, Reduced Size Surface Mount (SM11)

Features

- High Output Power: >+22 dBm Typical
- High Third Order Intercept: +32 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	10 - 1500 MHz	10 - 1500 MHz
Gain (dB)	14	14 ± 1
Power @ 1 dB Comp. (dBm)	>+23	+20.0 Min.
Reverse Isolation (dB)	- 20	-18.0 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<6.0*	7.0* Max.
Power Vdc	+15	+15
mA	98	102 Max.

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

Typical Intermodulation Performance at 25 ° C

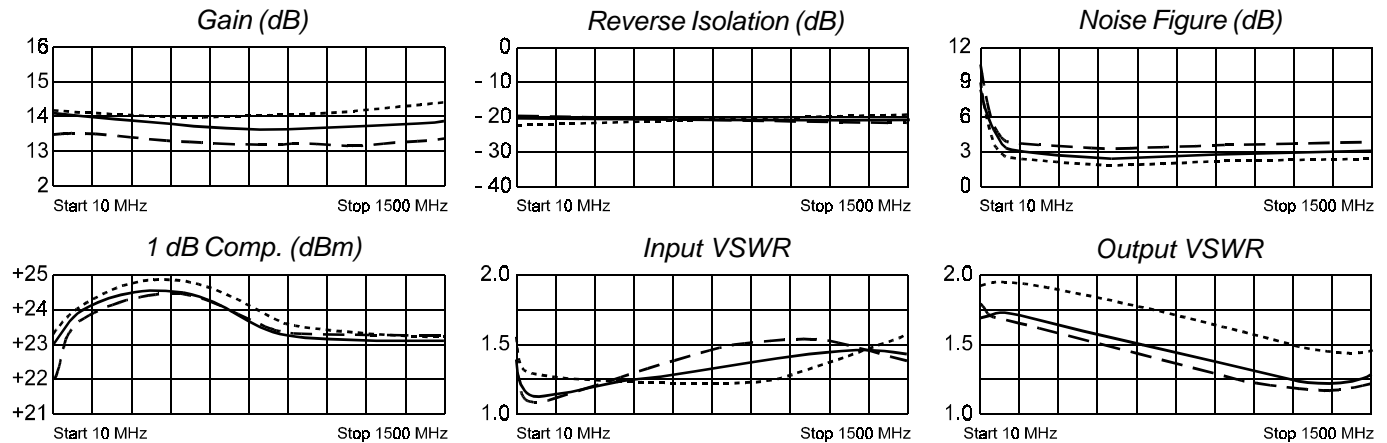
Second Order Harmonic Intercept Point +49 (Typ.)
 Second Order Two Tone Intercept Point +44 (Typ.)
 Third Order Two Tone Intercept Point +32 (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 17 Volts
 Continuous RF Input Power + 20 dBm
 Short Term RF Input Power 200 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.5 Watt
 (3 µsec Max.)

* Noise figure is greater than 7.0 dB for frequencies below 30 MHz.

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.
10	.18	-114	5.26	-167	.102	7	.26	171
100	.07	-165	5.08	171	.099	- 4	.27	173
300	.08	-132	4.97	152	.099	- 12	.26	159
500	.12	-127	4.89	134	.099	- 22	.23	145
700	.16	-124	4.83	117	.088	- 32	.19	131
900	.18	-130	4.82	98	.088	- 42	.16	115
1100	.21	-130	4.86	79	.087	- 54	.11	96
1300	.20	-131	4.92	59	.087	- 67	.11	73
1500	.21	-131	4.97	35	.086	- 83	.13	40



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