

# RF AMPLIFIER

## MODEL *TM3083*

Available as: TM3083, 4 Pin TO-8 (T4)  
 TN3083, 4 Pin Surface Mount (SM3)  
 FP3083, 4 Pin Flatpack (FP4)  
 BX3083, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.7 dB Typical
- Operating Temp. - 55 °C to + 85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +41 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +35 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +27 dBm (Typ.)

### Specifications

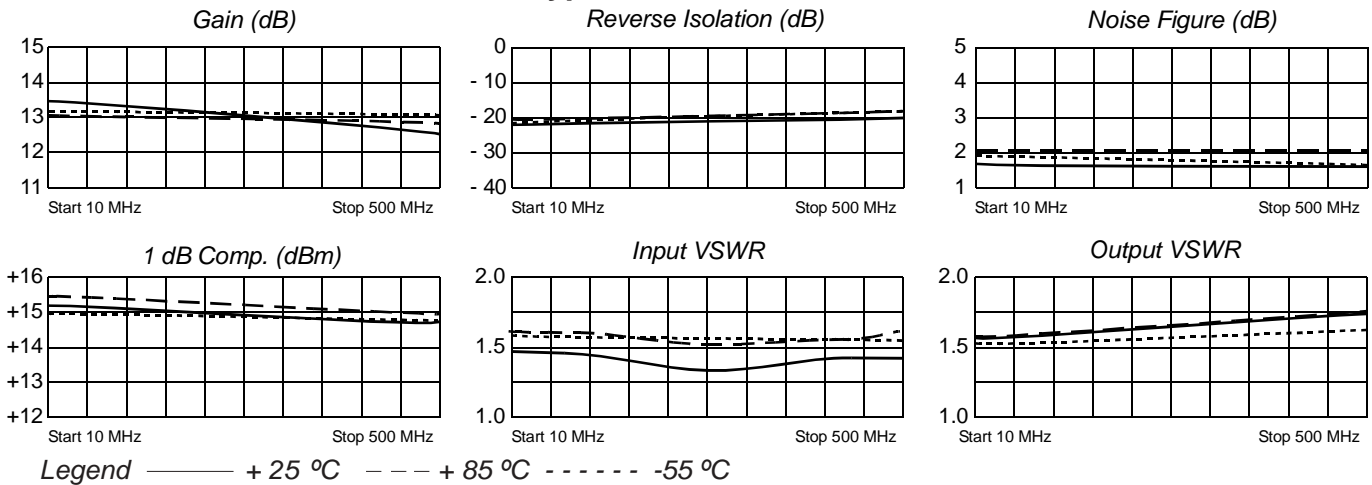
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10-500 MHz	10-500 MHz
Gain (dB)	13	11 Min.
Power @ 1 dB Comp. (dBm)	+15	+14 Min.
Reverse Isolation (dB)	-21	-19 Max.
VSWR In	1.7:1	2.0:1 Max.
Out	1.7:1	2.0:1 Max.
Noise Figure (dB)	1.7	2.5 Max.
Power Vdc	+15	+15
mA	35	40 Max.

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

### 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
10	.25	-18	4.69	-173	.0883	2	.21	-176
50	.23	-19	4.67	173	.0865	-3	.22	179
100	.23	-33	4.62	163	.0866	-6	.22	175
150	.23	-48	4.56	154	.0881	-10	.22	171
200	.22	-63	4.51	145	.0890	-13	.23	167
250	.22	-78	4.43	137	.0901	-16	.23	164
300	.21	-94	4.35	129	.0917	-20	.24	160
350	.21	-109	4.29	120	.0936	-24	.25	156
400	.21	-126	4.21	113	.968	-28	.26	151
450	.22	-141	4.14	105	.983	-33	.26	146
500	.22	-155	4.08	97	.1008	-37	.27	141



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