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 ºC to + 85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º 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 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
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.

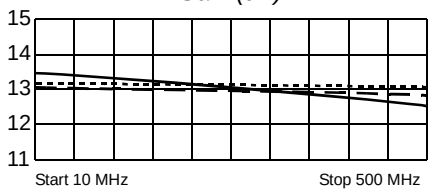
Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

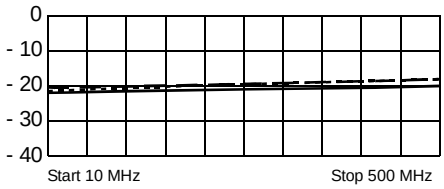
Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Typical Performance Data

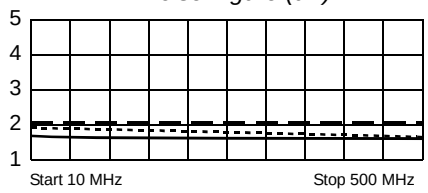
Gain (dB)



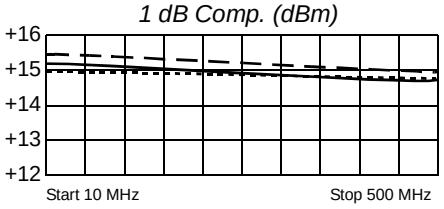
Reverse Isolation (dB)



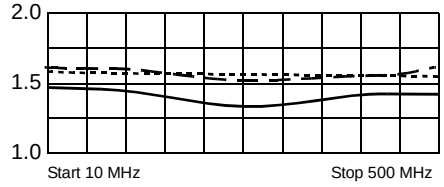
Noise Figure (dB)



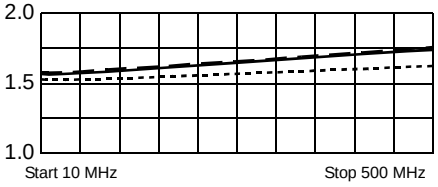
1 dB Comp. (dBm)



Input VSWR



Output VSWR



Legend ——— *+ 25 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

Freq.	----S11----		----S21----		----S12----		----S22----	
MHz	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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