

RF AMPLIFIER

MODEL *TM3085*

Available as: TM3085, 4 Pin TO-8 (T4)
 TN3085, 4 Pin Surface Mount (SM3)
 BX3085, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.5 dB Typical
- Output Power: +19.5 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	100 - 500 MHz	100 - 500 MHz
Gain (dB)	11.5	10 Min.
Power @ 1 dB Comp. (dBm)	19.5	18.5 Min.
Reverse Isolation (dB)	-25	-22 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.2:1	1.75:1 Max.
Noise Figure (dB)	1.5	2.5 Max.
Power Vdc	+15	+15 Min.
mA	90	100 Max.

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

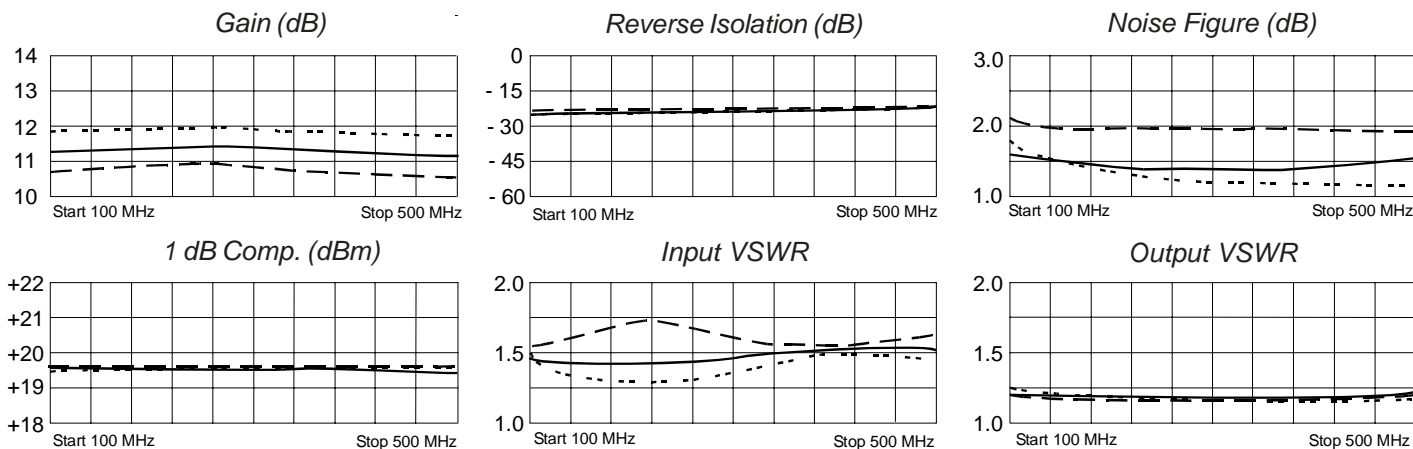
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +48 dBm (Typ.)
 Second Order Two Tone Intercept Point +43 dBm (Typ.)
 Third Order Two Tone Intercept Point +31 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 + 20 dBm
 Short Term RF Input Power ... 100 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
100	.25	38	3.67	180	.05	15	.09	162
200	.22	4	3.52	164	.06	14	.07	116
300	.23	-18	3.33	155	.06	13	.06	80
400	.25	-37	3.21	149	.07	12	.04	51
500	.27	-56	3.22	143	.07	10	.03	23



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 01/13/05

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