RF AMPLIFIER
MODEL *TM3092*

Available as: TM3092, 4 Pin TO-8 (T4)
TN3092, 4 Pin Surface Mount (SM3)
FP3092, 4 Pin Flatpack (FP4)
BX3092, Connectorized Housing (H1)

Features

- Higher Output Power: +25 dBm Typical
- Operating Temp. -55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +48 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +44 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +37 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)	12	11 Min.
Power @ 1 dB Comp. (dBm)	+25	+24 Min.
Reverse Isolation (dB)	-23	-19 Max.
VSWR In Out	1.2:1 1.9:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	6.0	7.0 Max.
Power Vdc mA	+15 140	+15 150 Max.

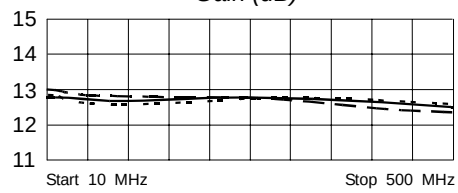
Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

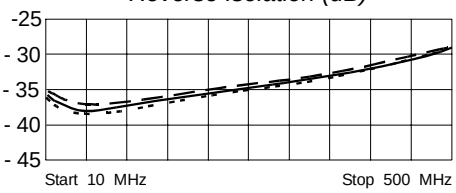
Ambient Operating Temperature ..... -55ºC to +100 ºC
Storage Temperature ..... -62ºC to +125 ºC
Case Temperature ..... +125 ºC
DC Voltage ..... +18 Volts
Continuous RF Input Power ..... +13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Typical Performance Data

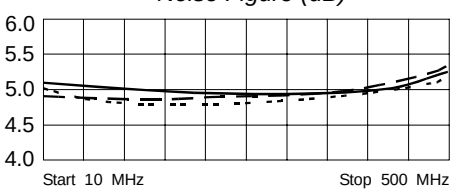
Gain (dB)



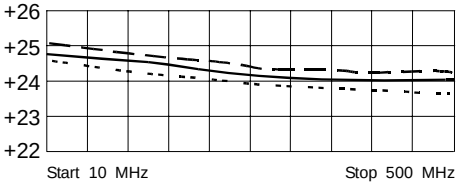
Reverse Isolation (dB)



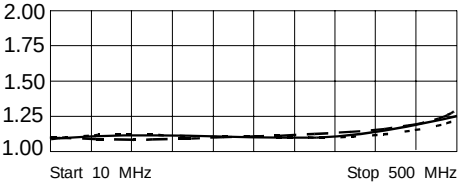
Noise Figure (dB)



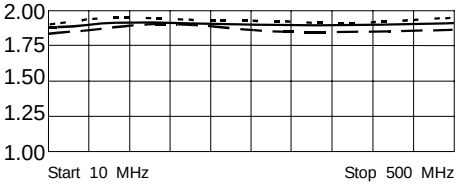
1 dB Comp. (dBm)



Input VSWR



Output VSWR



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

Linear S-Parameters

Freq. MHz	----S11---- Mag	Deg	----S21---- Mag	Deg	----S12---- Mag	Deg	----S22---- Mag	Deg
0	.47	-35	2.16	-121	.0339	57	.55	-71
15	.11	-4	4.20	179	.0144	-12	.32	-177
60	.08	22	4.16	165	.0147	17	.32	162
90	.06	55	4.13	156	.0161	27	.32	151
150	.08	124	4.04	140	.0217	38	.30	130
180	.10	144	3.99	132	.0242	44	.30	120
240	.12	163	3.91	116	.0320	44	.29	99
300	.10	167	3.84	101	.0418	45	.30	78
360	.07	133	3.79	85	.0546	39	.32	54
450	.18	79	3.78	59	.0762	28	.34	11
510	.29	80	3.68	39	.0946	16	.32	-22

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532
www.SpectrumMicrowave.com *Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001*

Rev. 12/12/07