

# 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 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 °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

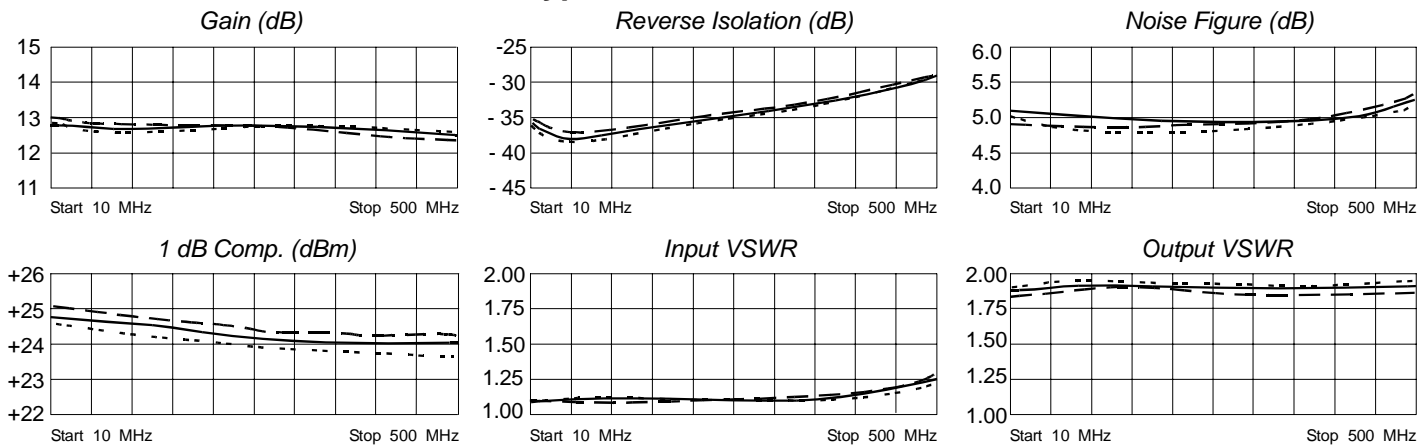
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	12	11 Min.
Power @ 1 dB Comp. (dBm)	+25	+24 Min.
Reverse Isolation (dB)	-23	-19 Max.
VSWR In	1.2:1	2.0:1 Max.
Out	1.9:1	2.0:1 Max.
Noise Figure (dB)	6.0	7.0 Max.
Power Vdc	+15	+15
mA	140	150 Max.

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



Legend ——— + 25 °C    - - - - + 85 °C    ······ -55 °C

### Linear S-Parameters

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



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