

RF AMPLIFIER

MODEL TM7212

Available as: TM7212, 4 Pin TO-8 (T4)
 TN7212, 4 Pin Surface Mount (SM3)
 FP7212, 4 Pin Flatpack (FP4)
 BX7212, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.8 dB Typical
- High Output Power: +20 dBm Typical
- Lower +12 Vdc Supply
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 200 MHz	30 - 200 MHz
Gain (dB)	8.5	7.5 Min.
Power @ 1 dB Comp. (dBm)	+20	+19 Min.
Reverse Isolation (dB)	-12	-11 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.35:1	2.0:1 Max.
Noise Figure (dB)	1.8	3.0 Max.
Power Vdc	+12	+12
mA	30	33 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 +61 dBm (Typ.)

Second Order Two Tone Intercept Point +55 dBm (Typ.)

Third Order Two Tone Intercept Point +40 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 +15 Volts

Continuous RF Input Power +15 dBm

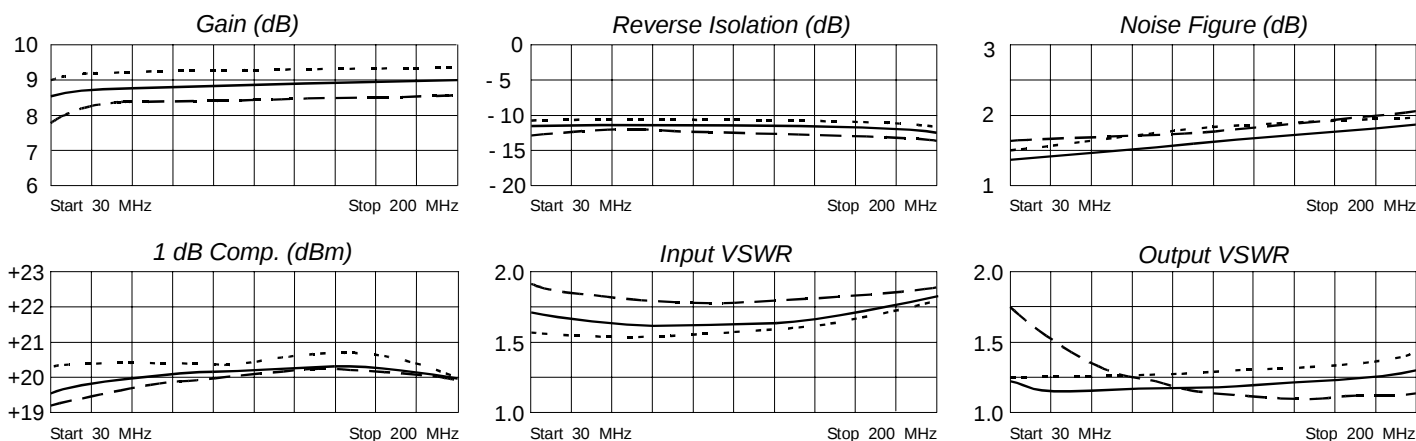
Short Term RF Input Power 50 Milliwatts (1 Minute Max.)

Maximum Peak Power 0.5 Watt (3 µsec Max.)

MTBF Calculation for Ground Benign Environment

@ 25 °C 4,067,101.04 hrs

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
20	.33	155	2.61	11	.24	12	.21	95
50	.28	165	2.71	- 1	.25	- 2	.08	60
100	.27	169	2.73	-14	.25	-14	.05	-25
150	.28	172	2.76	-24	.24	-23	.08	-74
200	.31	171	2.78	-34	.23	-33	.13	-96



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