RF AMPLIFIER MODEL *TM5338*

Available as: TM5338, 4 Pin TO-8 (T4)
TN5338, 4 Pin Surface Mount (SM3)
FP5338, 4 Pin Flatpack (FP4)
BX5338, Connectorized Housing (H1)

Features

- High Output Power: +25 dBm Typical
- Low Noise Figure: 2.9 dB Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5-150 MHz	5-150 MHz
Gain (dB)	16	14 Min.
Power @ 1 dB Comp. (dBm)	+25	+23.0 Min.
Reverse Isolation (dB)	-20	-19 Max.
VSWR In Out	1.8:1 1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	2.9	3.5 Max.
Power Vdc mA	+12 90	+12 Min. 100 Max.

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

Typical Intermodulation Performance at 25 º C

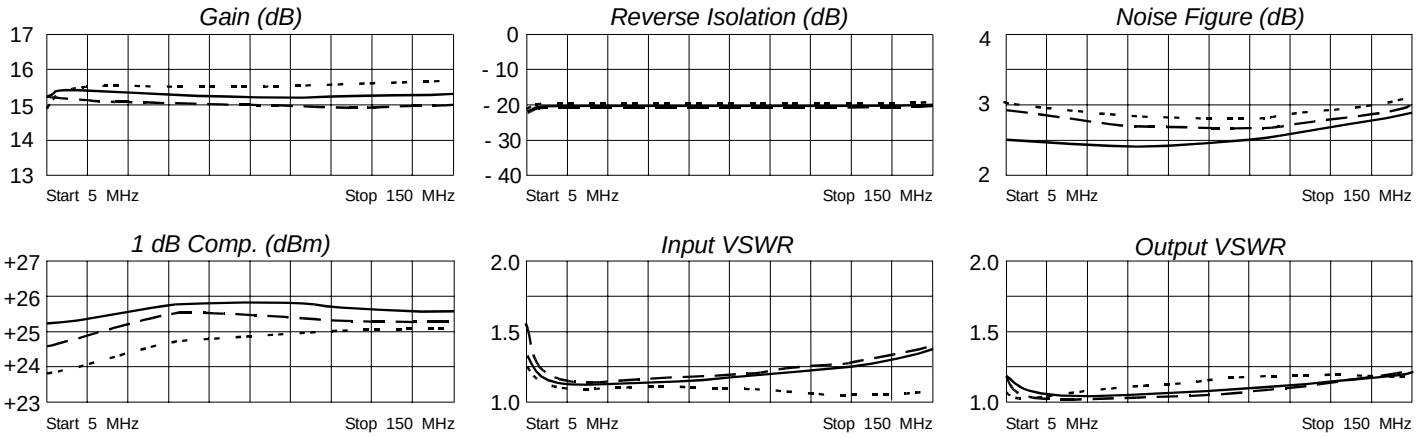
Second Order Harmonic Intercept Point ..... +56 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +51 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +40 dBm (Typ.)
Note: Intermods measured at 75 MHz

Maximum (NO DAMAGE) Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 15 Volts
Continuous RF Input Power ..... + 18 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Revision April 16, 2026
ECN: Intermods updated and raised to current performance values
Typical values aligned to reflect current performance values

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
5	.16	- 96	5.81	-164	.09	-171	.09	- 42
25	.06	-140	5.85	169	.10	167	.02	- 90
50	.07	-153	5.83	154	.10	151	.02	-105
75	.07	-155	5.78	139	.10	135	.02	-116
100	.09	-162	5.78	125	.10	120	.04	-152
125	.12	-164	5.80	110	.10	105	.06	179
150	.17	-169	5.80	94	.10	89	.09	149

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