

RF AMPLIFIER

MODEL *TM9333*

Available as: TM9333, 4 Pin TO-8 (T4)
 TN9333, 4 Pin Surface Mount (SM3)
 FP9333, 4 Pin Flatpack (FP4)
 BX9333, Connectorized Housing (H1)
 PN9333, Reduced Size Surface Mount (SM11)

Features

- Medium Gain: 11.5 dB Typical
- Medium Output Power: +16 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	5 - 1000 MHz	5 - 1000 MHz
Gain (dB)	11.5	10.0 Min.
Power @ 1 dB Comp. (dBm)	+16.0	+14.0 Min.
Reverse Isolation (dB)	-15	-13 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	5.0	6.5 Max.
Power Vdc	+15	+15
mA	48	52 Max.

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

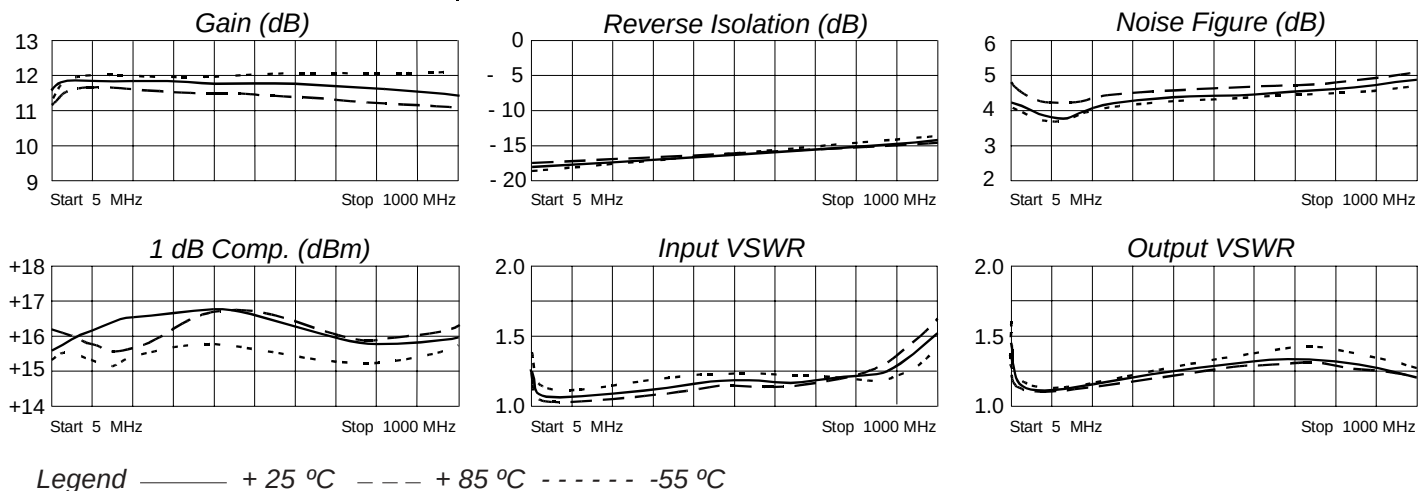
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +50 dBm (Typ.)
 Second Order Two Tone Intercept Point +44 dBm (Typ.)
 Third Order Two Tone Intercept Point +30 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 ... 200 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.10	- 97	3.79	-169	.14	13	.03	132
50	.04	174	3.91	174	.15	0	.05	174
100	.04	138	3.91	166	.15	- 1	.05	-175
200	.05	106	3.91	152	.15	- 3	.06	-153
400	.08	59	3.89	123	.16	- 9	.11	-151
600	.09	12	3.86	94	.17	-16	.14	-165
800	.09	- 67	3.82	64	.19	-25	.15	172
1000	.21	-152	3.79	32	.20	-39	.08	150



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