RF AMPLIFIER
MODEL *TM6153*

Available as: TM6153, 4 Pin TO-8 (T4)
TN6153, 4 Pin Surface Mount (SM3)
FP6153, 4 Pin Flatpack (FP4)
BX6153, Connectorized Housing (H1)

Features

- GaAs FET: Low Noise Figure :< 3 dB Typical
- Medium Output Power:>+7 dBm 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	300 - 1800 MHz	300 - 1800 MHz
Gain (dB)	11.5	10.5 Min.
Power @ 1 dB Comp. (dBm)	+7	+6 Min.
Reverse Isolation (dB)	-17	-15 Max.
VSWR In	<2.5:1	3.0:1 Max.
VSWR Out	<2.0:1	2.5:1 Max.
Noise Figure (dB)	<3	4.0 Max.
Power Vdc	+15	+15
Power mA	18	20 Max.

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

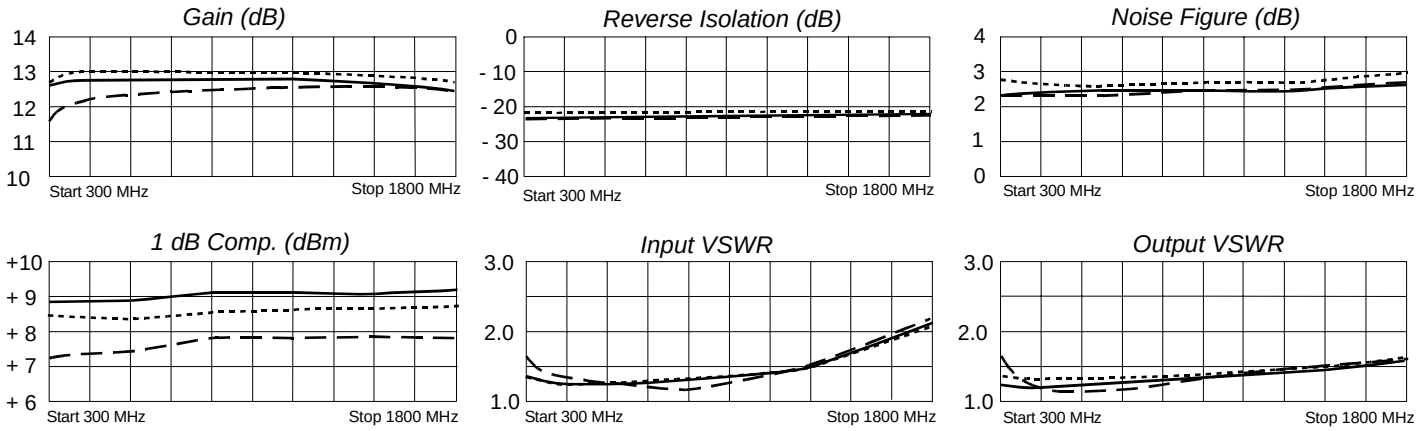
Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point.....+28 dBm (Typ.)
Second Order Two Tone Intercept Point.....+22 dBm (Typ.)
Third Order Two Tone Intercept Point.....+18 dBm (Typ.)

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 ..... + 10 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 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
300	.27	-41	3.83	148	.11	-14	.05	25
400	.29	-53	3.79	138	.11	-19	.06	12
600	.33	-76	3.74	117	.11	-30	.07	-15
800	.38	-96	3.67	97	.11	-40	.06	-36
1000	.39	-117	3.72	78	.11	-49	.07	-41
1400	.38	-137	3.83	56	.12	-60	.06	-58
1600	.32	-163	4.02	31	.12	-75	.05	-55
1800	.20	140	4.14	1	.13	-94	.05	-22
	.28	22	4.13	-31	.14	-118	.22	-21

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