

# RF AMPLIFIER

## MODEL *TM9054*

Available as: TM9054, 4 Pin TO-8 (T4)  
 TN9054, 4 Pin Surface Mount (SM3)  
 FP9054, 4 Pin Flatpack (FP4)  
 BX9054, Connectorized Housing (H1)

### Features

- High Gain: 24 dB Typical
- Operating Temp. - 55 °C to + 85 °C
- Low +5 Volt Supply
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +44 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+38 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+24 dBm (Typ.)

### Specifications

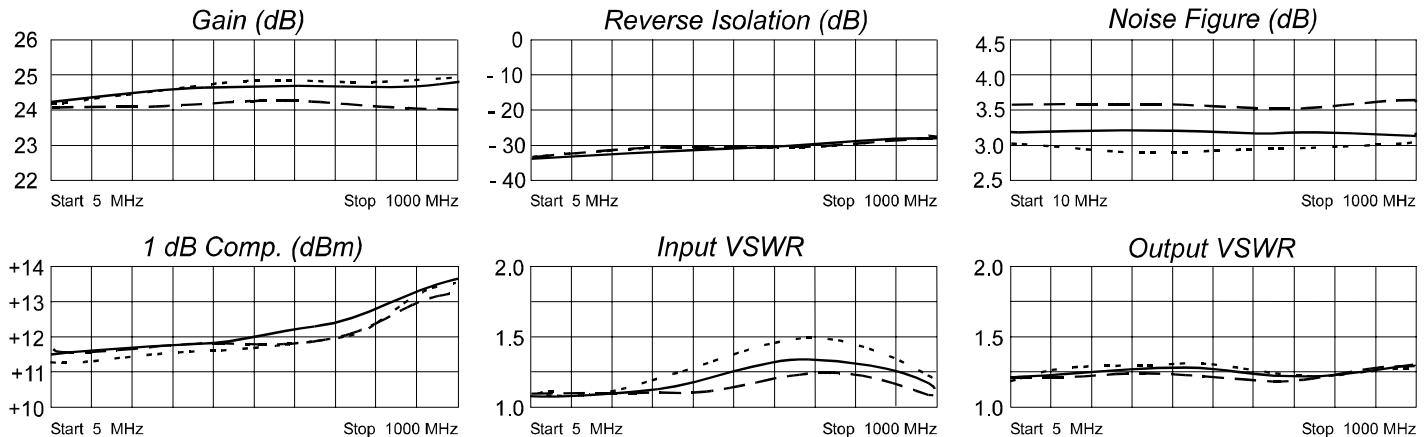
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 1000 MHz	10 - 1000 MHz
Gain (dB)	24	23 Min.
Gain Flatness (dB)	+/- 0.3	+/- 0.7 Max.
Power @ 1 dB Comp. (dBm)	+11	+9 Min.
Reverse Isolation (dB)	-33	-28 Max.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	3.5	4.5 Max.
Power Vdc	+5	+5
mA	40	46 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... + 8 Volts  
 Continuous RF Input Power ..... +6 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

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

### 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
10	.02	- 27	16.24	6	.02	11	.10	167
109	.02	- 64	16.58	- 27	.02	-1	.10	-177
208	.03	-125	16.61	- 53	.02	2	.11	-175
307	.05	179	16.71	- 78	.02	-1	.13	-179
406	.08	144	16.88	-104	.02	0	.13	172
505	.11	115	17.06	-130	.02	-2	.13	162
604	.14	89	17.10	-157	.03	-6	.12	152
703	.15	63	17.12	176	.03	-8	.09	150
802	.15	37	17.04	148	.03	-13	.09	161
901	.12	9	17.12	120	.03	-19	.11	161
1000	.06	- 38	17.18	91	.03	-24	.15	140



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