

# RF AMPLIFIER

## MODEL *TM6457*

Available as: TM6457, 4 Pin TO-8 (T4)  
 TN6457, 4 Pin Surface Mount (SM3)  
 FP6457, 4 Pin Flatpack (FP4)  
 BX6457, Connectorized Housing (H1)

### Features

- 5 Volt Operation
- Low Noise Figure: <2.0 dB 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 - 400 MHz	5 - 400 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+10	+7.5 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.7:1	2.0:1 Max.
Noise figure (dB)	<2.0	3.0 Max.
Power Vdc	+5	+5
mA	15.5	18 Max.

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

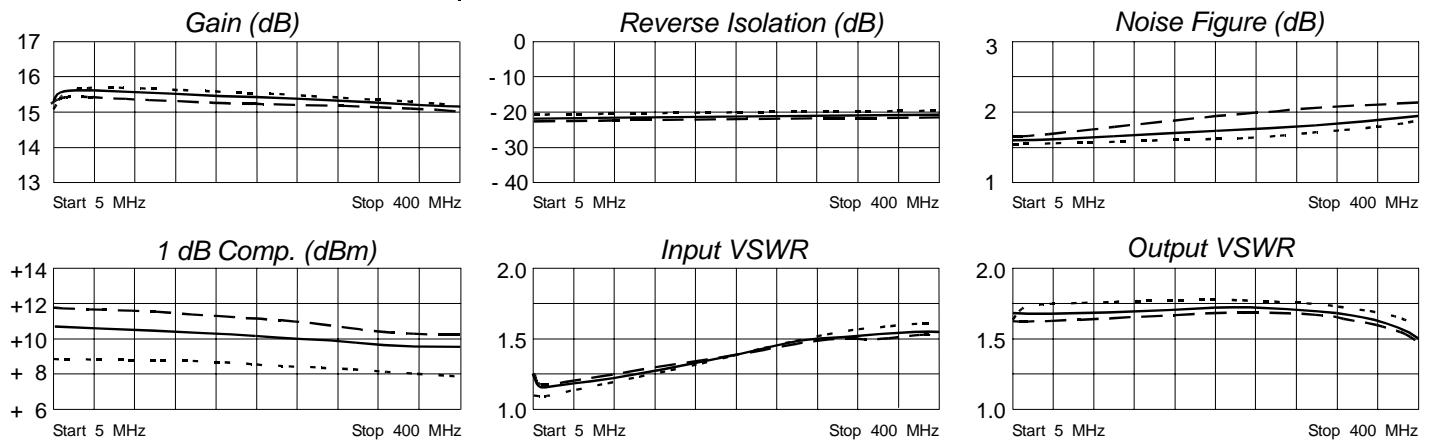
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point .....+41 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +35 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +24 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 ..... + 10 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Powe ..... 0.5 Watt (3 μsec Max.)

### 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
5	.12	- 53	5.89	-166	.09	-166	.27	- 16
50	.08	- 62	6.10	167	.10	166	.25	- 20
100	.11	- 88	6.05	152	.09	152	.25	- 34
200	.19	-123	6.01	124	.09	123	.25	- 63
300	.24	-154	6.08	94	.09	94	.25	- 89
400	.28	171	6.12	62	.09	67	.21	-111
500	.30	123	5.93	25	.08	37	.12	-122



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