

RF AMPLIFIER

MODEL CZ8451

Available as: CZ8451, 4 Pin TO-12 (T7)
 TN8451, 4 Pin Surface Mount (SM3)
 BX8451, Connectorized Housing (H1)

Features

- 5 Volt Bias: 17 dB Gain Typical
- Low Noise Figure: 2.25 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	1 - 300 MHz	5 - 250 MHz
Gain (dB)	17	15.5 Min.
Power @ 1 dB Comp. (dBm)	+2.5	0 Min.
Reverse Isolation (dB)	- 21	-20 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	2.25	3.0 Max.
Power Vdc	+5	+5
mA	12.5	15 Max.

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

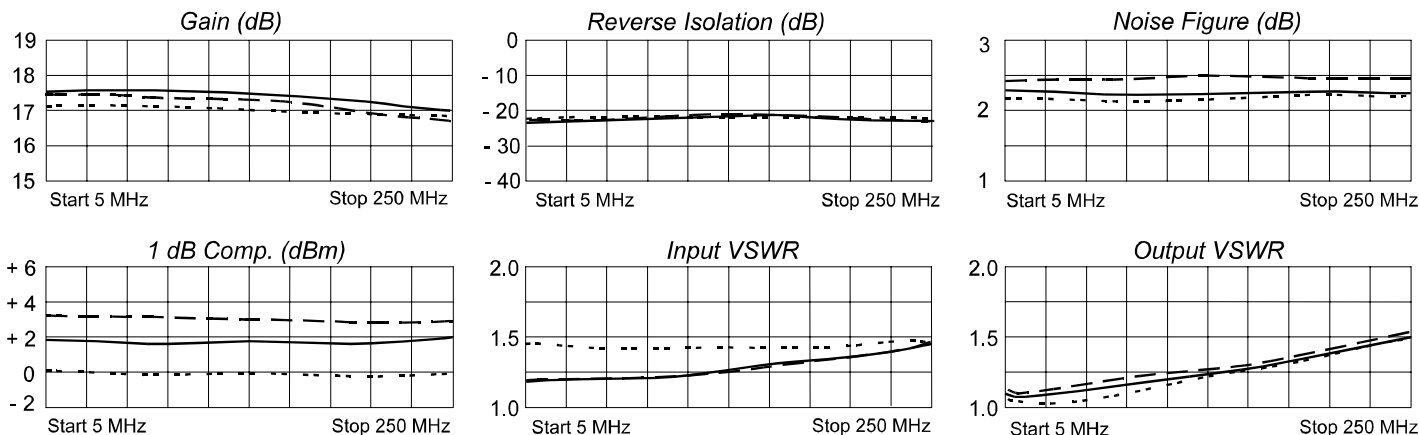
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+21 dBm (Typ.)
 Second Order Two Tone Intercept Poin.....+15 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+14 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 Power 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	.10	-167	7.49	-178	.07	3	.04	-152
50	.10	-171	7.46	166	.07	4	.05	-147
100	.11	-163	7.40	151	.07	4	.08	-139
150	.12	-157	7.34	136	.07	6	.12	-144
200	.14	-155	7.18	120	.08	7	.17	-155
250	.17	-154	7.00	105	.08	8	.23	-168



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