RF AMPLIFIER MODEL QBH-250

Available as: QBH-250, F-Pack (E52-5006)

Features

- High Gain: 20.0 dB Typical
- High Power: +18 dBm Typical
- Environmental Screening Available

Maximum Ratings

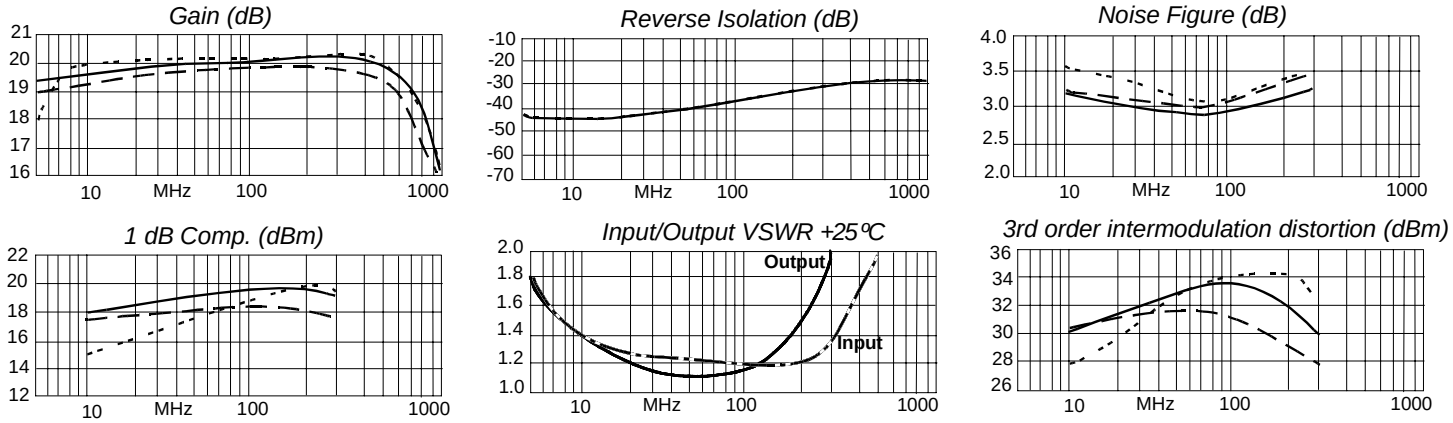
Ambient Operating Temperature ..... -55ºC to + 125 ºC
Storage Temperature ..... -65ºC to + 150 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 20 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Note: Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX
Frequency	10 - 300 MHz	—
Gain (dB)	20.0 ± 0.5	—
Gain vs. Temperature	—	—
Gain Flatness	1.0	—
Reverse Isolation (dB)	-23	—
VSWR In Out	1.5:1 2.0:1	—
1 dB Compression (dBm)	+18	—
Output Intercept point 3rd Order 2nd Order	 +30 +41	—
Noise Figure (dB)	3.5	—
Power Vdc mA	+15 51	—

Typical Performance Data



Legend ——— + 25 ºC – – – + 85 ºC - - - - - - -55 ºC

Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
10	-15.8	-120.1	19.8	-168.7	-45.2	76.5	-16.2	145.1
40	-19.1	-167.6	20.1	169.2	-42.5	44.6	-23.5	168.6
60	-19.3	-178.2	20.1	160.6	-41.0	43.0	-23.7	-173.0
70	-19.6	177.8	20.1	156.5	-40.3	41.6	-23.3	-166.3
90	-19.7	170.0	20.1	148.5	-38.7	40.3	-22.1	-157.8
100	-19.8	168.3	20.1	144.7	-38.1	39.9	-21.4	-155.5
200	-19.6	145.9	20.3	105.9	-33.0	22.1	-15.1	-161.1
250	-18.0	139.0	20.3	85.8	-31.1	10.0	-12.4	-173.1
300	-15.9	128.4	20.3	65.2	-29.6	-3.4	-10.2	172.4

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