

RF AMPLIFIER

Available as: QBH-125, 4 Pin TO-8 Tall (080-22502-0001)
QBH-9-125, Connectorized Housing (ES E52-1501)

MODEL QBH-125

Features

- High Gain: 19.6 dB Typical
- High Power: +23 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Maximum Ratings

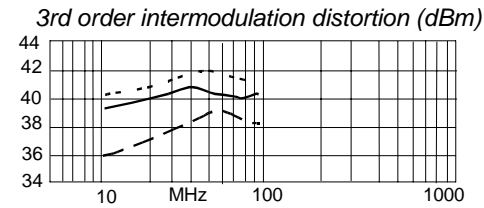
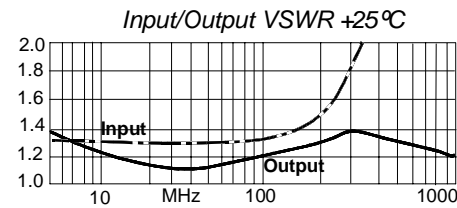
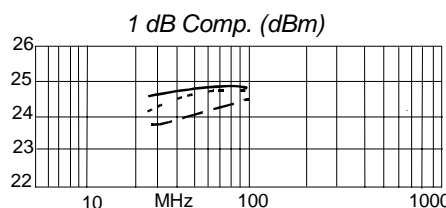
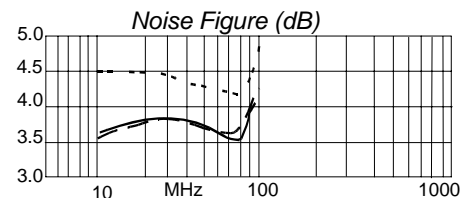
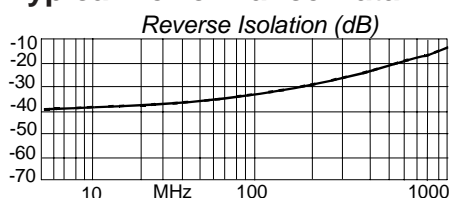
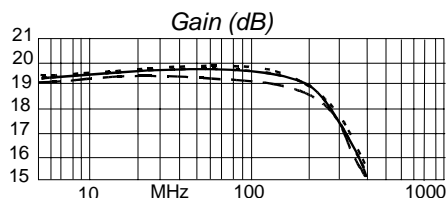
Ambient Operating Temperature -55°C to +125 °C
Storage Temperature -65°C to +150 °C
Case Temperature +125 °C
DC Voltage +16.5 Volts
Continuous RF Input Power +13 dBm
Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
Maximum Peak Power 0.5 Watt (3 µsec Max.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 100 MHz	10 - 100 MHz
Gain (dB)	19.6 ± 0.8	—
Gain vs. Temperature	—	+0.5/-1.0 Max.
Gain Flatness	0.5	0.6 Max.
Reverse Isolation (dB)	-29	-29 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+23	+21 Min.
Output Intercept point 3rd Order	+38	+33 Min.
2nd Order	+50	+43 Min.
Noise Figure (dB)	4.5	5.0 Max.
Power Vdc	+15	+15
mA	132	137 Max.

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

Typical Performance Data



Legend ——— +25 °C - - - +85 °C ······ -55 °C

Linear S-Parameters

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
10	-17.4 -174.7	19.5 -176.3	-40.5 37.0	-21.0 87.0
30	-17.7 -176.9	19.7 171.3	-39.3 36.3	-24.1 50.9
40	-17.7 -176.4	19.7 166.9	-38.5 38.6	-23.7 43.7
50	-17.7 -175.8	19.7 162.6	-37.6 41.9	-23.1 38.0
60	-17.7 -174.8	19.6 158.5	-36.7 44.4	-22.4 33.2
70	-17.6 -173.7	19.6 154.5	-36.0 45.5	-21.8 28.5
80	-17.5 -172.7	19.6 150.5	-35.3 48.0	-21.1 24.8
90	-17.4 -171.4	19.6 146.5	-34.5 47.7	-20.5 20.6
100	-17.2 -170.4	19.5 142.6	-33.8 49.0	-19.9 16.7

