

RF AMPLIFIER

Available as: QBH-842, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-842, Connectorized Housing (ES E52-1501)

MODEL QBH-842

Features

- High Gain: 13.5 dB Typical
- High Power: +26 dBm 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	10- 250 MHz	10 - 250 MHz
Gain (dB)	13.5 ± 0.5	—
Gain vs. Temperature	—	+0.5/-0.5 Max.
Gain Flatness	0.5	0.5 Max.
Reverse Isolation (dB)	-24	-24 Min.
VSWR In	1.5:1	1.6:1 Max.
VSWR Out	1.8:1	1.8:1 Max.
1 dB Compression (dBm)	+26	+26 Min.
Output Intercept point		
3rd Order	+40	+38 Min.
2nd Order	+48	+45 Min.
Noise Figure (dB)	8.0	10 Max.
Power Vdc	+15	+15
mA	122	125 Max.

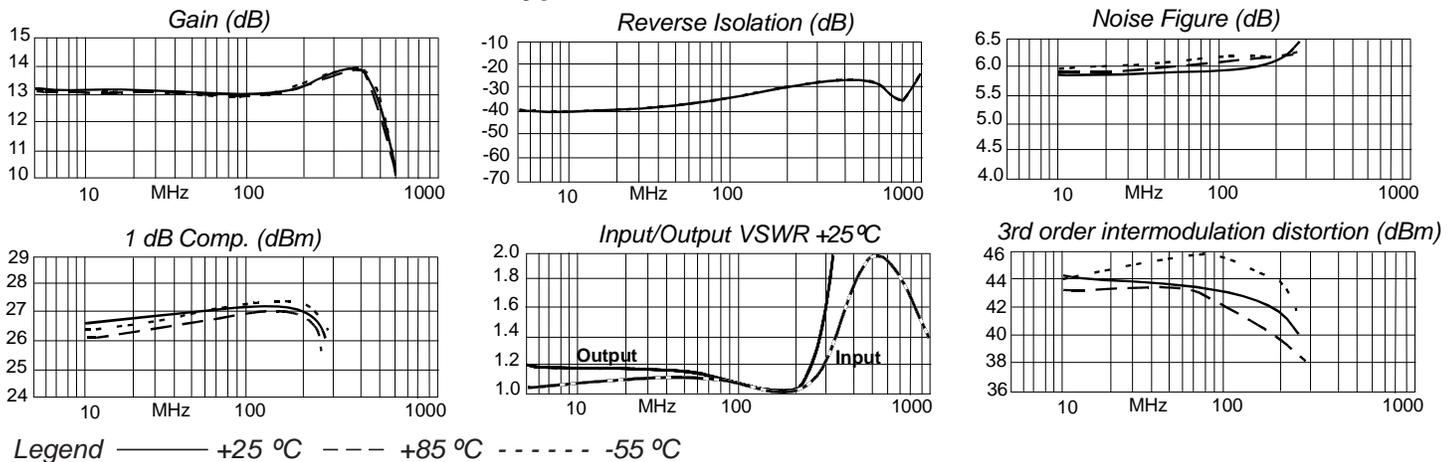
Maximum (NO DAMAGE) Ratings

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 +18.0 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.

Revision 3-23-2015

Typical Performance Data



Linear S-Parameters Data

FREQ. MHz	-- S11 --		-- S21 --		-- S12 --		-- S22 --	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
10	-29.2	8.1	13.2	179.4	-38.2	12.6	-22.9	30.7
40	-26.8	-8.3	13.2	164.3	-37.0	18.5	-24.0	-5.0
50	-26.8	-13.8	13.2	160.1	-36.4	19.9	-24.3	-10.4
70	-26.9	-21.1	13.2	151.6	-35.3	22.2	-25.1	-20.3
80	-27.0	-27.2	13.2	147.5	-34.7	22.1	-25.7	-24.1
90	-27.3	-31.0	13.2	143.2	-34.0	20.9	-26.5	-27.5
150	-30.5	-67.1	13.1	118.6	-31.3	13.9	-28.7	-52.8
200	-33.5	-140.1	13.2	98.4	-29.5	3.6	-30.5	-123.7
250	-27.1	154.4	13.4	77.0	-28.0	-10.0	-22.1	177.2



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