

Hybrid Amplifiers High Dynamic Range

Electrical Specifications ⁽¹⁾:

Parameter	Specification Limit		Units
Temperature	+25	-55 to +100	°C
Frequency Range	5 - 500		MHz
Small Signal Gain	15.0 ± 0.5		dB
Gain vs. Temperature	+1.0 / -1.0		dB Max
Gain Flatness	0.6	1.0	dB Max p-p
Reverse Isolation	25	25	dB Min
VSWR Input	1.5:1	1.5:1	Max
VSWR Output	1.5:1	1.5:1	Max
1 dB Compression	+9	+9	dBm Min
Output Intercept Point			
3rd Order	+23	+22	dBm Min
2nd Order	+33	+32	dBm Min
Noise Figure	3.0	3.5	dB Max
DC Power @ 15 Vdc ± 1%	29	31	mA Max
Gain vs. Vdc	0.05		dB/Volt Max
Housing	TO-8 (E52-1213)		

QBH-110

Absolute Maximum Ratings

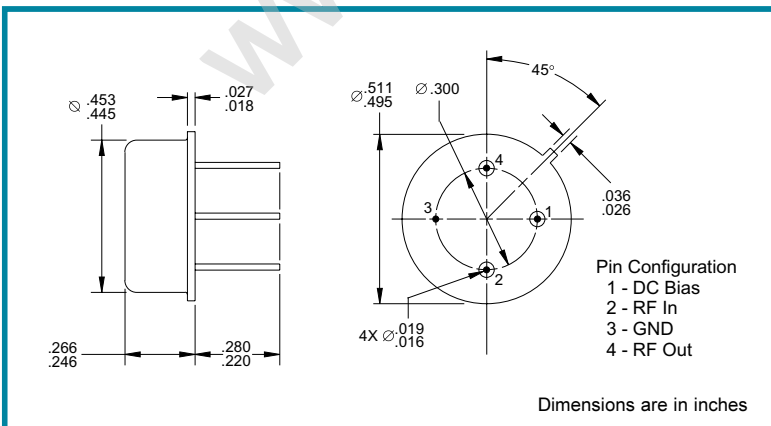
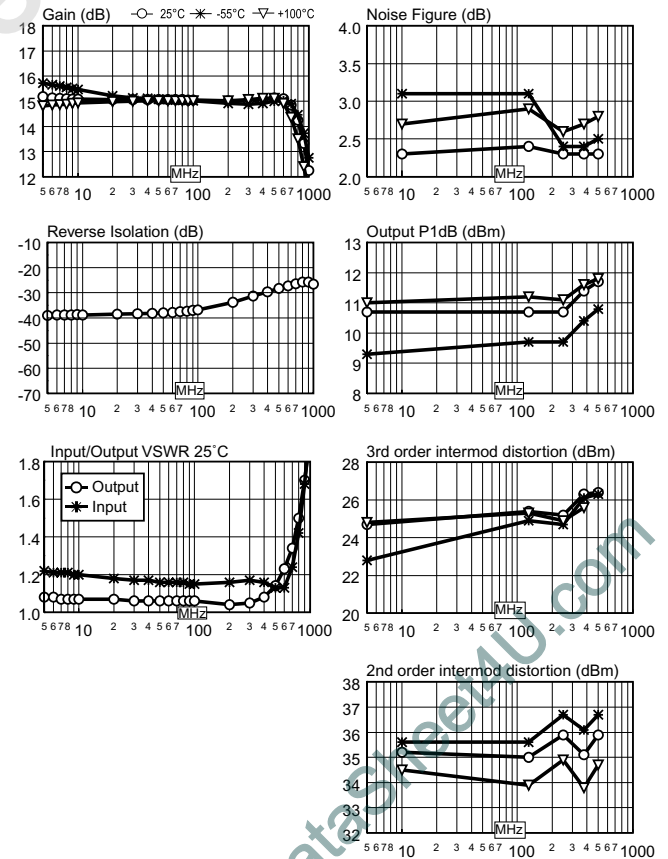
Power Supply Voltage	
Sustaining	17.0 Vdc
Pulse (transient)	25.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Max Input Drive	1.0 VRMS
Thermal Rise, junction-to-case	+14°C

Notes:

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

Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-20.2	-174.7	15.2	-179.9	-39.0	10.7	-28.2	161.8
9	-20.7	177.5	15.1	178.2	-38.7	6.6	-29.4	167.2
20	-21.6	171.6	15.1	174.8	-38.4	7.7	-30.0	170.9
40	-22.3	168.7	15.1	169.1	-38.2	13.1	-30.2	172.1
60	-22.7	166.4	15.1	163.5	-37.9	14.1	-30.4	169.3
80	-22.8	163.6	15.1	157.9	-37.3	16.7	-30.7	165.8
100	-22.9	160.9	15.1	152.4	-36.9	17.4	-31.1	164.5
300	-22.2	112.0	15.0	97.5	-31.3	5.4	-32.8	157.6
500	-25.1	14.8	15.1	41.3	-28.3	-28.6	-23.9	168.2



Specifications subject to change without notice.