

Hybrid Amplifiers High Dynamic Range

Electrical Specifications ⁽¹⁾:

Parameter	Specification Limit		Units
Temperature	+25	-55 to +85	°C
Frequency Range	5 - 500		MHz
Small Signal Gain	15.0 ± 0.5		dB
Gain vs. Temperature		+1.0 / -0.8	dB Max
Gain Flatness	0.6	1.2	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	+16	+15	dBm Min
Output Intercept Point			
3rd Order	+29	+27	dBm Min
2nd Order	+35	+31	dBm Min
Noise Figure	3.8	4.2	dB Max
DC Power @ 15 Vdc ± 1%	50	54	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 (E52-1213)		

QBH-126

Absolute Maximum Ratings

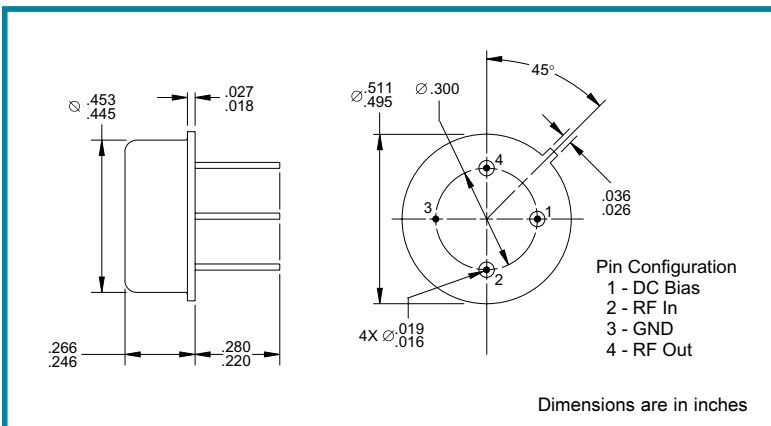
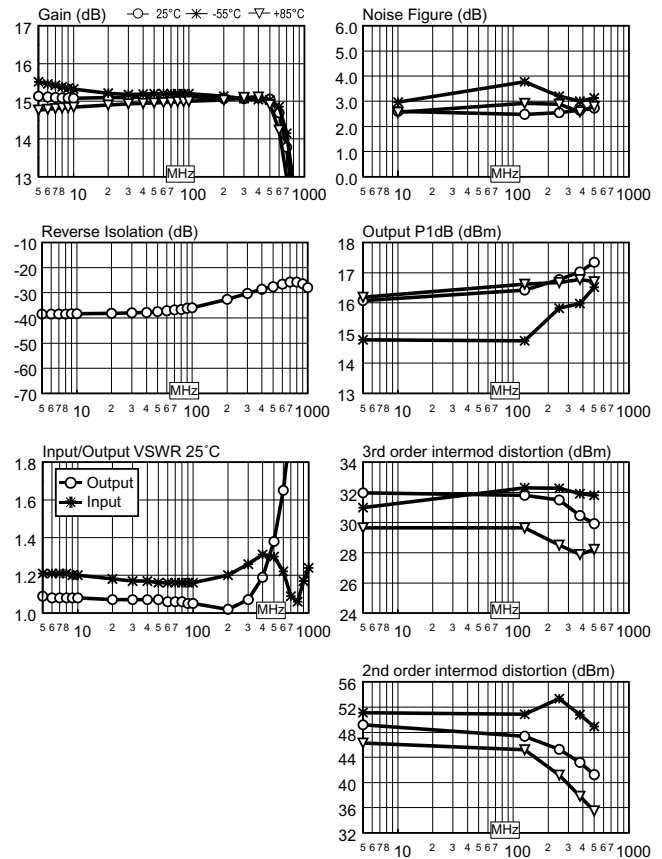
Power Supply Voltage	
Sustaining	19.0 Vdc
Pulse (transient)	19.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Max Input Drive	1.1 VRMS
Thermal Rise, junction-to-case	+28°C

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	-20.4	170.4	15.1	-178.1	-38.5	13.0	-27.5	160.3
9	-20.7	168.3	15.1	179.2	-38.3	9.3	-28.6	165.3
20	-21.5	162.1	15.1	174.9	-38.2	7.1	-29.0	166.9
40	-22.2	153.9	15.1	168.4	-37.8	9.4	-29.7	161.4
60	-22.5	146.2	15.1	162.1	-37.2	13.6	-30.5	153.9
80	-22.6	138.3	15.1	155.9	-36.6	16.2	-31.4	146.6
100	-22.6	130.0	15.1	149.7	-35.9	17.7	-32.8	138.8
300	-18.7	53.6	15.1	88.6	-30.2	-0.8	-29.8	-92.4
500	-17.7	-26.6	15.1	23.8	-27.5	-38.2	-16.1	-173.8



Specifications subject to change without notice.