

## Hybrid Amplifiers High Dynamic Range

### Electrical Specifications <sup>(1)</sup>:

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		+0.8 / -0.4	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	+12	+11	dBm Min
Output Intercept Point			
3rd Order	+26	+24	dBm Min
2nd Order	+36	+33	dBm Min
Noise Figure	3.0	3.3	dB Max
DC Power @ 15 Vdc ± 1%	33	34	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 (E52-1213)		

## QBH-119

### Absolute Maximum Ratings

Power Supply Voltage	
Sustaining	16.5 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	+15°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	-20.5	-168.3	15.1	-180.0	-40.3	11.2	-27.8	155.5
100	-21.5	131.0	15.0	148.3	-38.2	11.2	-22.3	87.2
200	-19.8	94.5	14.7	119.4	-35.6	8.2	-20.7	53.8
200	-19.8	94.3	14.7	119.4	-35.7	6.9	-20.7	53.7
300	-18.4	61.6	14.7	89.9	-33.5	-6.6	-18.7	39.9
400	-18.4	30.2	14.8	59.7	-31.8	-25.7	-17.1	31.0
500	-22.2	-0.2	14.9	27.9	-30.6	-46.7	-15.2	24.9

