

Hybrid Amplifiers High Dynamic Range

Electrical Specifications ⁽¹⁾:

| Parameter | Specification Limit | | Units |
|------------------------|---------------------|------------|-------------|
| Temperature | +25 | -55 to +85 | °C |
| Frequency Range | 5 - 400 | | MHz |
| Small Signal Gain | 12.2 ± 0.5 | | dB |
| Gain vs. Temperature | +0.5 / -0.5 | | dB Max |
| Gain Flatness | 0.6 | 0.8 | dB Max p-p |
| Reverse Isolation | 25 | 24 | dB Min |
| VSWR Input | 1.5:1 | 1.6:1 | Max |
| VSWR Output | 1.5:1 | 1.6:1 | Max |
| 1 dB Compression | +16 | +15 | dBm Min |
| Output Intercept Point | | | |
| 3rd Order | +29 | +28 | dBm Min |
| 2nd Order | +38 | +37 | dBm Min |
| Noise Figure | 6.0 | 6.4 | dB Max |
| DC Power @ 15 Vdc ± 1% | 47 | 48 | mA Max |
| Gain vs. Vdc | 0.10 | | dB/Volt Max |
| Housing | TO-8 (E52-1213) | | |

QBH-116

Absolute Maximum Ratings

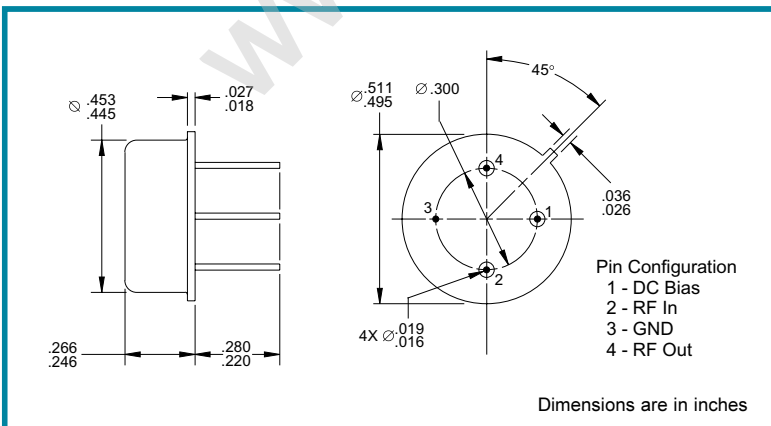
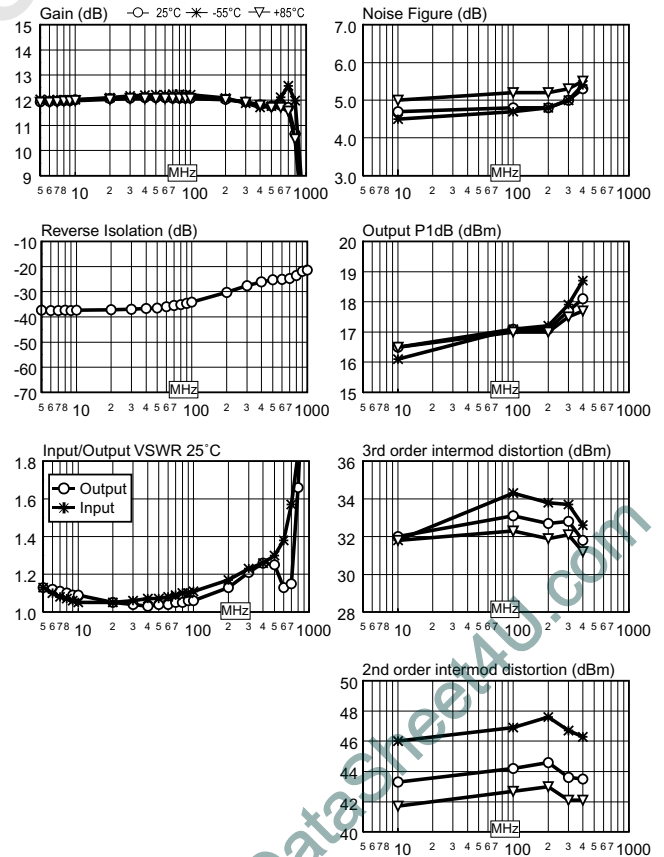
| | |
|--------------------------------|---------------|
| Power Supply Voltage | |
| Sustaining | 18.5 Vdc |
| Pulse (transient) | 18.5 Vdc |
| Temperature | |
| Operating | -55 to +125°C |
| Storage | -65 to +150°C |
| Max Input Drive | 1.7 VRMS |
| Thermal Rise, junction-to-case | +32°C |

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 | -24.2 | -84.3 | 11.9 | -168.1 | -37.4 | 13.8 | -24.0 | 117.5 |
| 9 | -30.8 | -67.1 | 12.0 | -175.3 | -37.4 | 10.4 | -27.1 | 101.0 |
| 20 | -32.9 | -33.2 | 12.1 | 176.6 | -37.2 | 10.0 | -32.0 | 65.6 |
| 40 | -29.8 | -38.6 | 12.1 | 167.8 | -36.7 | 14.7 | -35.5 | 16.1 |
| 60 | -28.2 | -52.0 | 12.1 | 160.2 | -36.0 | 17.1 | -34.0 | -17.4 |
| 80 | -26.8 | -64.8 | 12.1 | 152.9 | -35.1 | 22.1 | -32.0 | -38.1 |
| 100 | -25.6 | -76.5 | 12.1 | 145.7 | -34.1 | 22.3 | -30.2 | -52.5 |
| 300 | -19.8 | -168.7 | 11.9 | 74.6 | -27.6 | 0.1 | -20.5 | -137.6 |
| 400 | -18.7 | 149.3 | 11.8 | 38.6 | -26.0 | -20.5 | -18.9 | -175.1 |



Specifications subject to change without notice.