


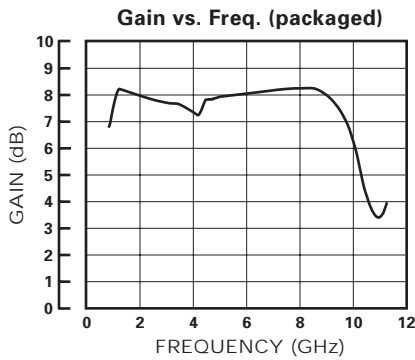
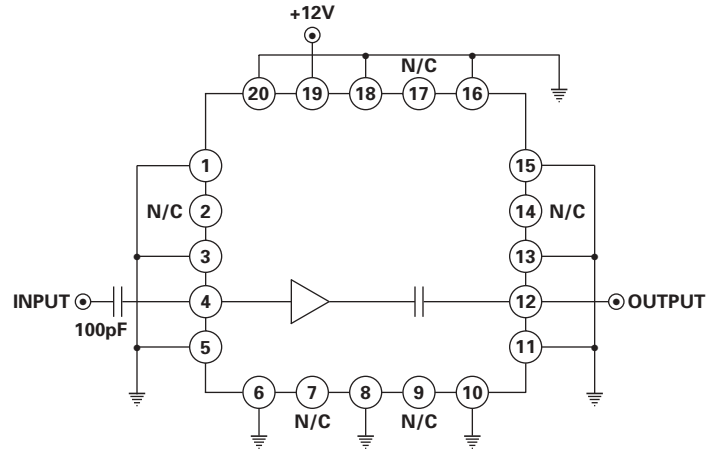
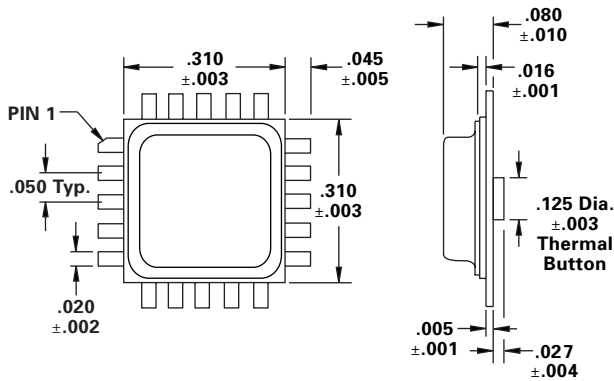
FEATURES

- 1-8 GHz Broad Bandwidth
- Typical Gain of 8 dB
- +16 dBm P-out @ 1 dB compression
- Single Power Supply
- Input/Output VSWR Typical 1.5:1
- 20-Pin Hermetic Package
- Available as Die, Part# DAMB4011D



MODEL NO.
DAMB5111

Amplifier

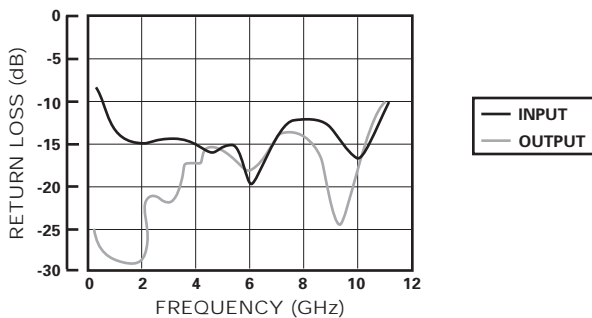


S-Parameters (typical) - I_{DD} = 99.1 mA

| FREQ GHz | S ₁₁ | | S ₂₁ | | S ₁₂ | | S ₂₂ | |
|-------------|-----------------|------|-----------------|------|-----------------|------|-----------------|------|
| | MAG. | ANG. | MAG. | ANG. | MAG. | ANG. | MAG. | ANG. |
| 0.5 | 0.031 | 26 | 2.398 | -169 | 0.016 | 82 | 0.371 | -60 |
| 1.0 | 0.054 | -66 | 2.834 | 159 | 0.028 | 56 | 0.304 | -86 |
| 2.0 | 0.052 | -140 | 2.662 | 115 | 0.041 | 35 | 0.247 | -135 |
| 3.0 | 0.033 | -114 | 2.528 | 80 | 0.061 | 18 | 0.236 | -177 |
| 4.0 | 0.077 | -102 | 2.486 | 47 | 0.080 | -7 | 0.224 | 141 |
| 5.0 | 0.141 | -122 | 2.561 | 14 | 0.097 | -37 | 0.168 | 101 |
| 6.0 | 0.195 | -145 | 2.683 | -26 | 0.105 | -74 | 0.060 | 70 |
| 7.0 | 0.216 | -176 | 2.644 | -68 | 0.104 | -115 | 0.096 | 160 |
| 8.0 | 0.113 | 150 | 2.673 | -116 | 0.112 | -163 | 0.166 | 110 |
| 9.0 | 0.258 | -122 | 2.473 | 177 | 0.135 | 126 | 0.070 | -97 |
| 10.0 | 0.407 | 176 | 1.675 | 113 | 0.133 | 60 | 0.339 | 152 |
| 10.5 | 0.069 | 111 | 2.282 | 52 | 0.180 | 8 | 0.206 | 57 |

Note: 1. Test Conditions: V_{DD} = +12V, T_A = 25 °C.
 2. S-Parameters and other data have been measured with the die in a microstrip test fixture as shown in the typical bonding diagram.

Input / Output Return Loss vs. Freq. (packaged)



ELECTRICAL SPECIFICATIONS

T_A = 25 °C, V_{DD} = +12V, RF = 4.0 GHz

| Parameter ⁽¹⁾ | Min | Typ | Max | Units |
|---|-----|-------|------|-------|
| Frequency of Operation | 1 | | 8 | GHz |
| Gain | | 6.8 | 8 | dB |
| Gain Flatness | | ±0.5 | ±1.0 | dB |
| Noise Figure | | 5 | | dB |
| Output 1 dB Compression | +16 | | | dBm |
| Input / Output VSWR | | 1.5:1 | 2:1 | |
| Reverse Isolation | 18 | 23 | | dB |
| Output Third-Order Intercept ⁽²⁾ | | +28 | | dBm |
| DC Power Supply | 10 | 12 | 15 | V |
| Supply Current | | 100 | 120 | mA |

Note: 1. Min / Max Values Listed are Production Tested
 2. Frequency Separation of Two Signals is 500 KHz