

## Description:

The $11305-3$ is a low profile 3 dB hybrid coupler in an easy to us $\epsilon$ surface mount package covering 1.0 to 2.0 GHz . The $11305-3 \mathrm{~S}$ is ideal for balanced amplifiers and signal distribution and can be used in most high power designs. Parts have been subjected to rigorous qualification testing and units are $100 \%$ tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyamide.

Detailed Electrical Specifications:

Features:

- $1.0-2.0 \mathrm{GHz}$
- Low Loss
- High Isolation
- $90^{\circ}$ Quadrature
- Surface Mountable
- Tape And Reel
- Convenient Package
- 100\% Tested
- Lead Free

| Frequency <br> GHz | Isolation <br> dB Min | Insertion Loss dB Max | VSWR <br> Max:1 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1.0-2.0 | 20 | 0.45 | 1.30 |  |
| Amplitude Balance dB Max | Phase Balance Degrees | Power Ave. $C W$ Watts | OJC ${ }^{\circ} \mathrm{C}$ Watt | Operating Temp. ${ }^{\circ} \mathrm{C}$ |
| $\pm 0.55$ | $\pm 3$ | 60 | 18.6 | -55 to +85 |

**Specification based on performance of unit properly installed on microstrip printed circuit boards with $50 \Omega$ nominal impedance.
*Specifications subject to change without notice.

## Outline Drawing:



Typical Performance: 1.0 GHz . to 2.0 GHz .


Pin Configuration

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Hybrid Coupler Pin Configruation |  |  |  |  |
|  | Pin 1 | Pin 2 | Pin 3 | Pin 4 |
| Configuration \#1 | Input | Isolated | -3dB, -90 ${ }^{\circ}$ | $-3 \mathrm{~dB}, 0^{\circ}$ |
| Configuration \#2 | Isolated | Input | $-3 \mathrm{~dB}, 0^{\circ}$ | -3dB, -90 |
| Configuration \#3 | -3dB, $-90^{\circ}$ | $-3 \mathrm{~dB}, 0^{\circ}$ | Input | Isolated |
| Configuration \#4 | $-3 \mathrm{~dB}, 0^{\circ}$ | -3dB, $-90^{\circ}$ | Isolated | Input |

Mounting Footprint

