

## Two-Way Power Divider 400 KHz - 400 MHz

Rev. V4

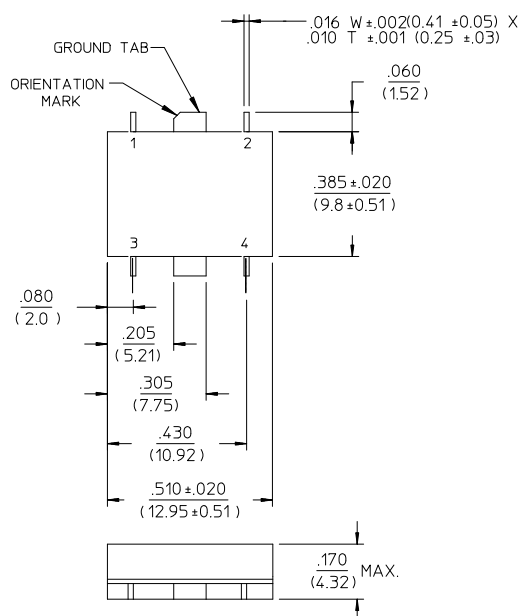
### Features

- Fully Hermetic Package (DSS-113)
- Three Decade Bandwidth
- Low Loss: 0.25 dB
- Impedance: 50  $\Omega$  nominal
- Maximum Power Rating or Input Power: 1 Watt
- Internal Load Dissipation: 0.05 Watts max.
- MIL-STD-202 Screening Available

### Description

A power divider is ideally a loss less reciprocal device which can also perform vector summation of two or more signals and thus is sometimes called a power combiner or summer.

### SF-1 (DSS-113)



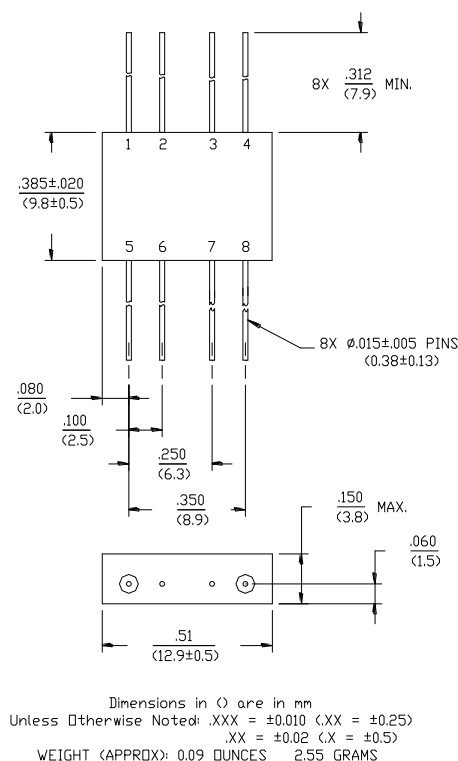
### Pin Configuration (DSS-113)

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1       | $\Sigma$ | 3       | GND      |
| 2       | Output C | 4       | Output D |

### Ordering Information

| Part Number | Package |
|-------------|---------|
| DS-113 PIN  | FP-2    |
| DSS-113 PIN | SF-1    |

### FP-2 (DS-113)



### Pin Configuration (DS-113)

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1       | $\Sigma$ | 5       | GND      |
| 2       | GND      | 6       | GND      |
| 3       | GND      | 7       | GND      |
| 4       | Output C | 8       | Output D |

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### DS-113 Electrical Specifications<sup>1</sup>: Freq. = 0.4 - 400 MHz, T<sub>A</sub> = -55°C to +85°C

| Parameter                   | Test Conditions | Units | Min. | Typ. | Max.  |
|-----------------------------|-----------------|-------|------|------|-------|
| Insertion Loss <sup>2</sup> | Less Coupling   | dB    | —    | —    | 0.75  |
| Isolation                   | —               | dB    | 25   | —    | —     |
| Amplitude Balance           | —               | dB    | —    | —    | 0.15  |
| Phase Balance               | —               | °     | —    | —    | 1.0   |
| VSWR                        | All Ports       | Ratio | —    | —    | 1.5:1 |

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|-----------------------------|-----------------|-------|------|------|-------|
| Insertion Loss <sup>2</sup> | Less Coupling   | dB    | —    | —    | 0.75  |
| Isolation                   | —               | dB    | 25   | —    | —     |
| Amplitude Balance           | —               | dB    | —    | —    | 0.15  |
| Phase Balance               | —               | °     | —    | —    | 1.5   |
| VSWR                        | All Ports       | Ratio | —    | —    | 1.6:1 |

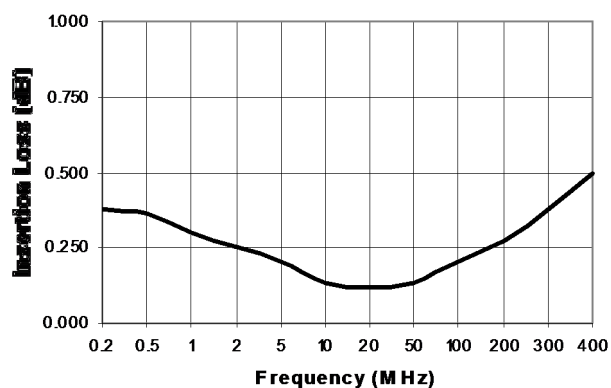
1. All specifications apply with 50 ohm source and load impedance.

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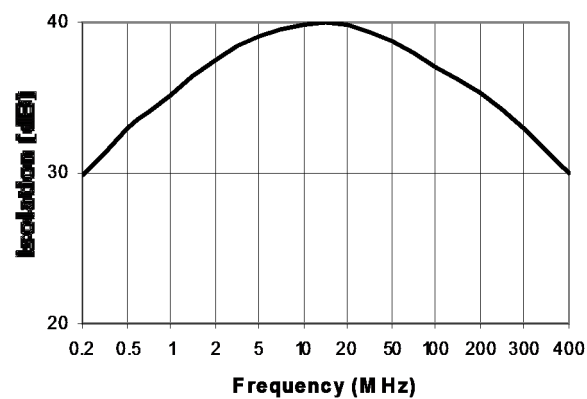
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### Typical Performance Curves:

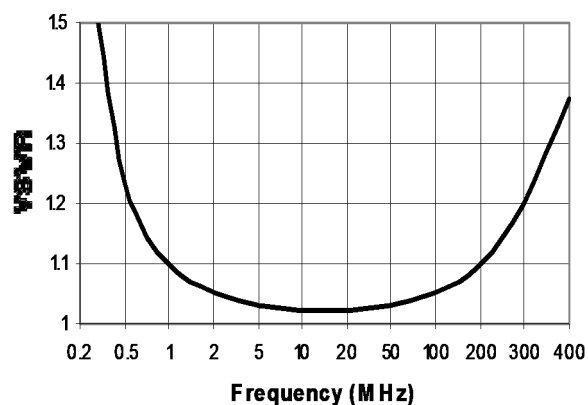
**Insertion Loss**



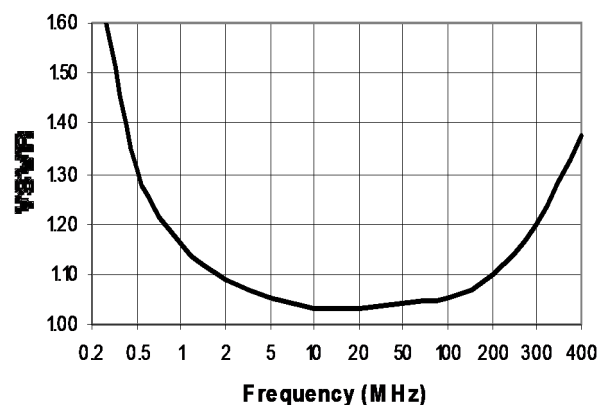
**Isolation**



**Input VSWR**



**Output VSWR**



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