

**Two-Way Power Dividers,
1 - 100 MHz and 40 - 400 MHz**

**MTH-50/MTV-50
V3**

Features

- Ideal for High Density Packaging
- High Isolation: 30 dB Min.
- VSWR: 1.3:1 Max.
- Impedance: 50 Ohms Nominal
- Maximum Power Rating or Input Power: 1 Watt Max.
- Internal Load Dissipation: 0.05 Watts Max.
- MIL-STD-883 Screening Available

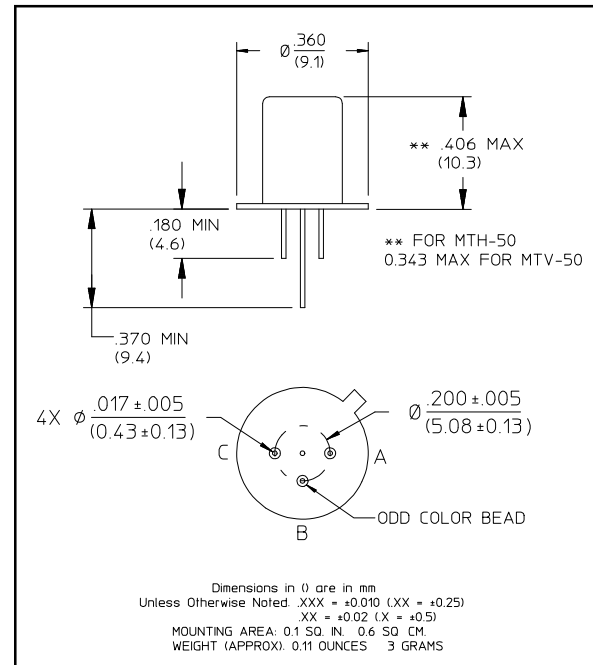
Description

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

Pin Configuration

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| A | Out | C | Out |
| B | In | | |

TO-5-1



MTH-50 Electrical Specifications¹: T_A = -55°C to +85°C

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|-------------------|-----------------|-------------|-------|-----|-----|-------|
| Frequency | — | 1 - 100 | MHz | — | — | — |
| Insertion Loss | Less Coupling | 1 - 100 MHz | dB | — | — | 0.5 |
| Isolation | — | 1 - 100 MHz | dB | 30 | — | — |
| Amplitude Balance | — | 1 - 100 MHz | dB | — | — | 0.1 |
| Phase Balance | — | 1 - 100 MHz | ° | — | — | 1.0 |
| VSWR | — | 1 - 100 MHz | Ratio | — | — | 1.3:1 |

MTV-50 Electrical Specifications¹: T_A = -55°C to +85°C

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|-------------------|-----------------|--------------|-------|-----|-----|-------|
| Frequency | — | 40 - 400 MHz | MHz | — | — | — |
| Insertion Loss | Less Coupling | 40 - 400 MHz | dB | — | — | 0.6 |
| Isolation | — | 40 - 400 MHz | dB | 30 | — | — |
| Amplitude Balance | — | 40 - 400 MHz | dB | — | — | 0.2 |
| Phase Balance | — | 40 - 400 MHz | ° | — | — | 2.0 |
| VSWR | — | 40 - 400 MHz | Ratio | — | — | 1.3:1 |

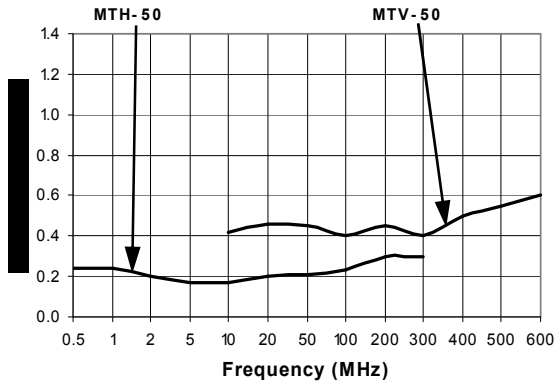
1. All specification apply with 50 ohm source and load impedance.

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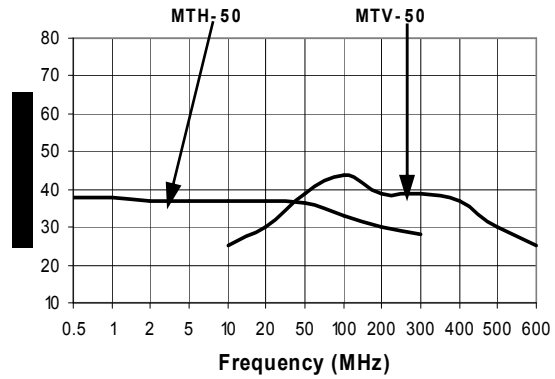
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Typical Performance Curves

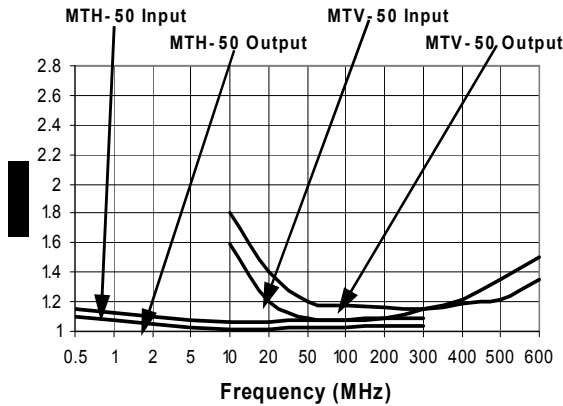
Insertion Loss - Ports 2 - 3, 2 - 1



Isolation - Ports 1 - 3



VSWR



Ordering Information

| Part Number | Package |
|-------------|---------|
| | |