

## Three-Way Power Dividers, 1 - 100 MHz and 50 - 300 MHz

Rev. V3

### Features

- Ideal for High Density Packaging
- High Isolation
- 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-202 Screening Available

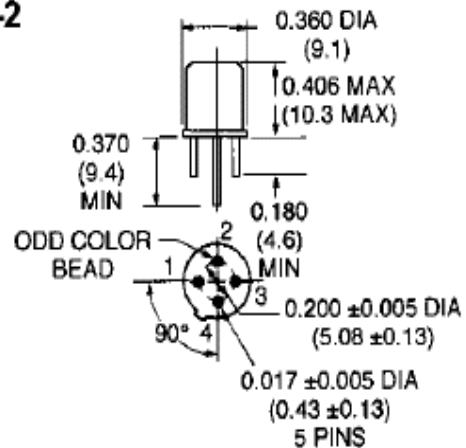
### Description

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
P1	Out	P3	Out
P2	In	P4	Out

### TO-5-2



Dimensions in ( ) are in mm.

Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)  
.xx = ±0.02 (.x = ±0.5)

MOUNTING AREA: 0.1 SQ. IN. 0.6 SQ. CM.  
WEIGHT (APPROX.): 0.11 OUNCES 3 GRAMS

### M3H-50 Electrical Specifications<sup>1</sup>: T<sub>A</sub> = -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	—	—	0.2
Phase Balance	—	1 - 100 MHz	°	—	—	1.0
VSWR	—	1 - 100 MHz	Ratio	—	—	1.3:1

### M3V-50 Electrical Specifications<sup>1</sup>: T<sub>A</sub> = -55°C to +85°C

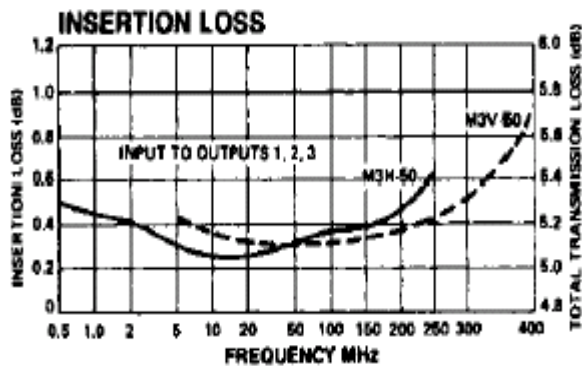
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Frequency	—	50 - 300 MHz	MHz	—	—	—
Insertion Loss	Less Coupling	50 - 300 MHz	dB	—	—	0.75
Isolation	—	50 - 300 MHz	dB	25	—	—
Amplitude Balance	—	50 - 300 MHz	dB	—	—	0.2
Phase Balance	—	50 - 300 MHz	°	—	—	2.0
VSWR	—	50 - 300 MHz	Ratio	—	—	1.3:1

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

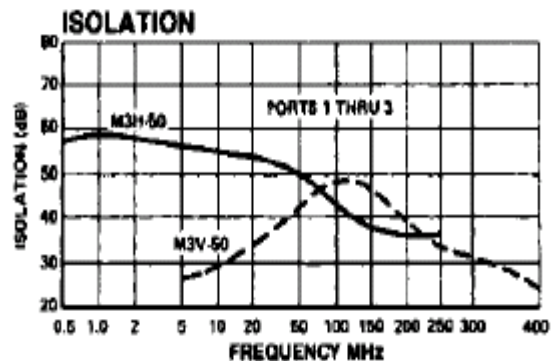
1

## Typical Performance Curves

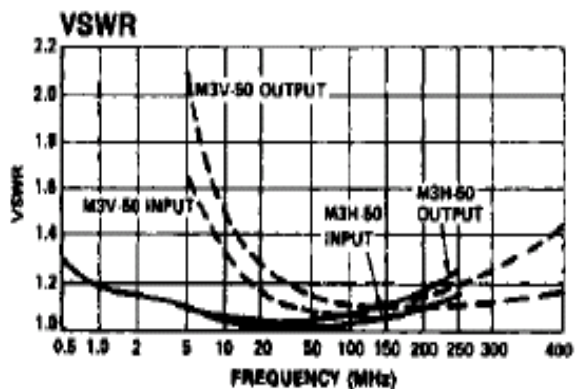
Insertion Loss - Ports 2 - 3, 2 - 1



Isolation - Ports 1 - 3



VSWR



## Ordering Information

Part Number	Package
M3H-50 PIN	TO-5-2
M3V-50 PIN	TO-5-2

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.