



# Low Cost Six-Way SMT Power Divider 824 - 960 MHz



## Features

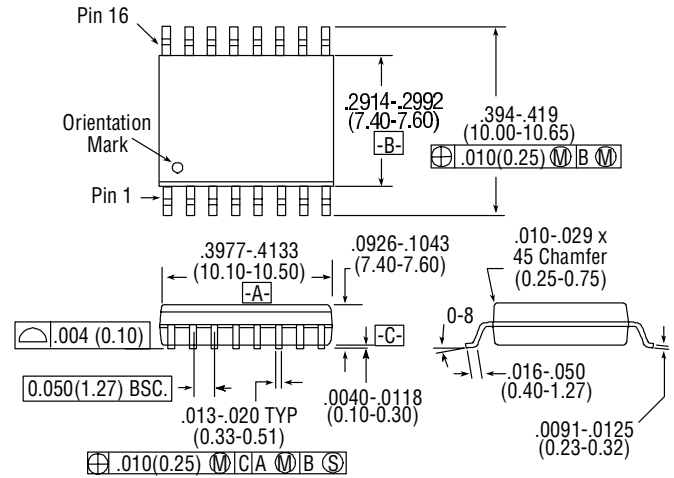
- Small Size, Low Profile
- Superior Repeatability (Lot-to-lot Variation)
- Industry Standard SOW-16 SMT Plastic Package
- Typical Isolation: 25 dB
- Typical Insertion Loss: 0.3 dB
- Low Cost
- 1 Watt Power Handling

## Description

M/A-COM's DS56-0001 is an IC-based monolithic power divider in a low cost SOW-16 plastic package. This 6-way power divider is ideally suited for applications where PCB real estate is at a premium and part count reduction and cost are critical. Typical applications include base station switching networks and other cellular equipment, including subscriber units. Available in tape and reel.

The DS56-0001 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

## SOW-16



16-Lead SOP outline dimensions  
Wide body (.300)

(All dimensions per JEDEC No. MS-013-AA, Issue C)  
Dimensions in ( ) are in mm.

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

## Ordering Information

Part Number	Package
DS56-0001	SOW 16-Lead Plastic Package
DS56-0001-TR	Forward Tape and Reel <sup>1</sup>
DS56-0001-RTR	Reverse Tape and Reel <sup>1</sup>

1. If specific reel size is required, consult factory for part number assignment.

## Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameters	Units	Min.	Typ.	Max.
Insertion Loss Above 7.0 dB	dB	—	1.3	1.5
Isolation	dB	20	25	—
VSWR	—	—	1.4:1	1.6:1
Amplitude Balance	dB	—	0.2	0.5
Phase Balance	°	—	6	8

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

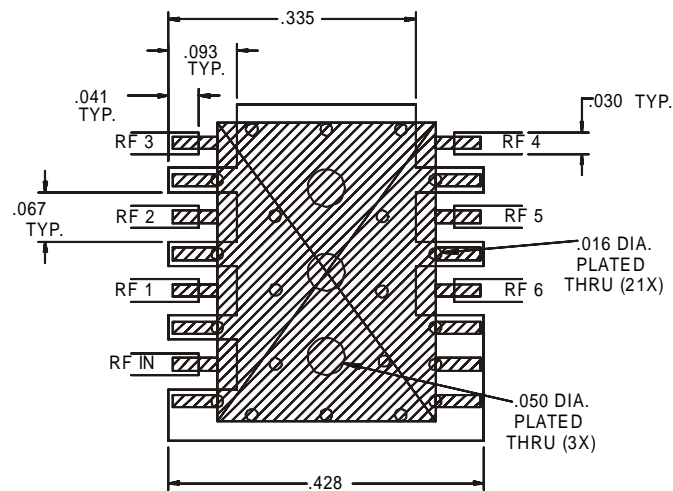
### Absolute Maximum Ratings<sup>1</sup>

Parameter	Absolute Maximum
Input Power <sup>2</sup>	1W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to 150°C

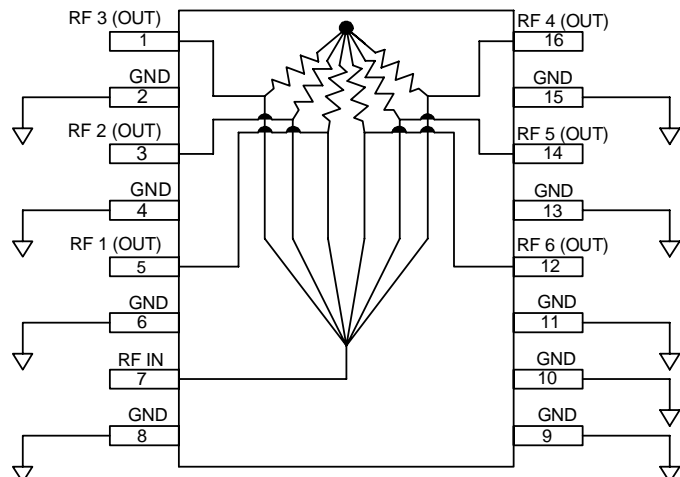
- Exceeding these limits may cause permanent damage.
- With internal load dissipation of 0.125 W maximum.

### Recommended PCB Configuration

(Dimensions in Inches)



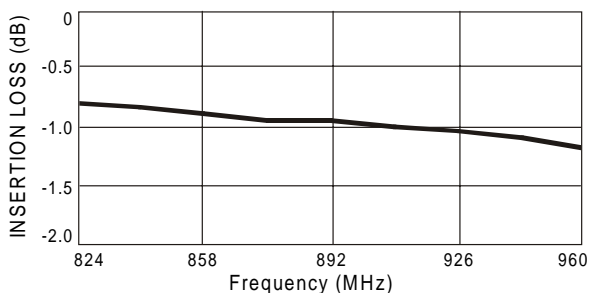
### Functional Diagram<sup>3</sup>



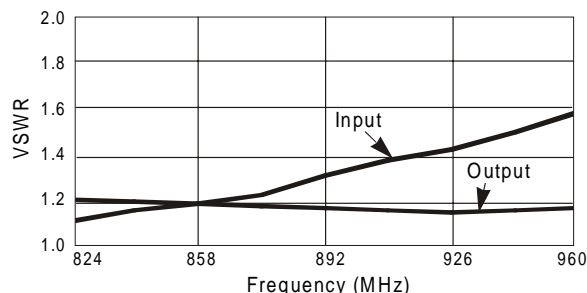
- Pins 2, 4, 6, 8, 9, 10, 11, 13, and 15 must be DC and RF grounded.

### Typical Performance @ +25°C

Insertion Loss vs. Frequency



VSWR vs. Frequency



Isolation vs. Frequency

