



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



Features

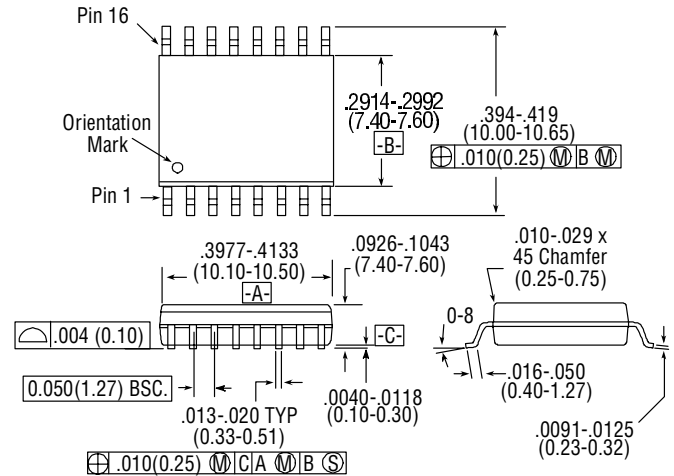
- Small Size, Low Profile
- Superior Repeatability (Lot-to-lot Variation)
- Industry Standard SOW-16 SMT Plastic Package
- Typical Isolation: 25 dB
- Typical Insertion Loss: 0.3 dB
- Low Cost
- 1 Watt Power Handling

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 ¹
DS56-0001-RTR	Reverse Tape and Reel ¹

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

Typical Electrical Specifications¹, T_A = +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.

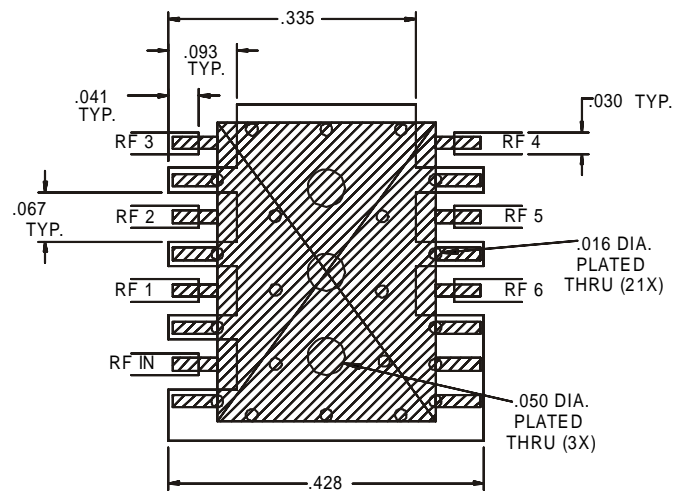
Absolute Maximum Ratings¹

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

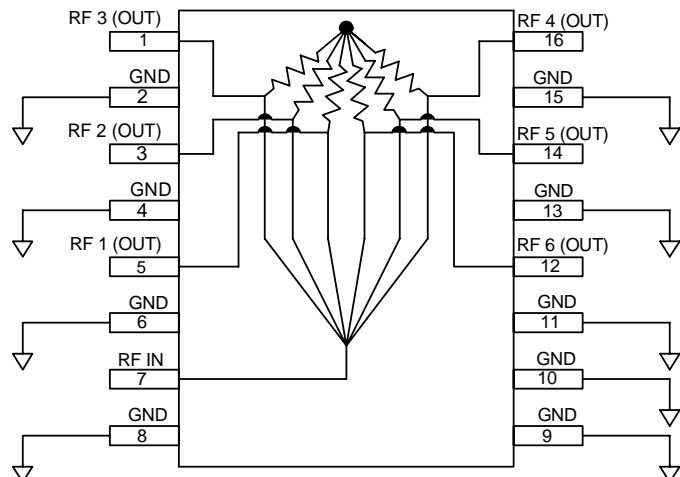
1. Exceeding these limits may cause permanent damage.
2. With internal load dissipation of 0.125 W maximum.

Recommended PCB Configuration

(Dimensions in Inches)



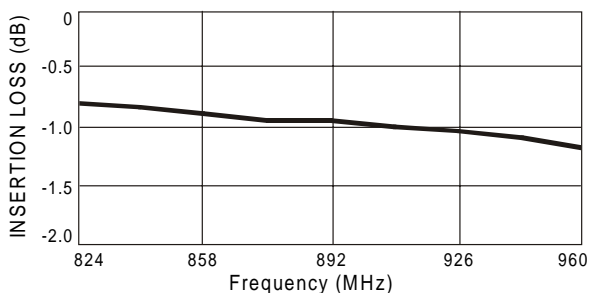
Functional Diagram³



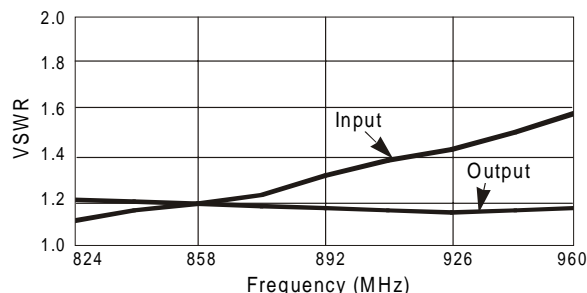
3. Pins 2, 4, 6, 8, 9, 10, 11, 13, and 15 must be DC and RF grounded.

Typical Performance @ +25°C

Insertion Loss vs. Frequency



VSWR vs. Frequency



Isolation vs. Frequency

