



M/A-COM



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

### Features

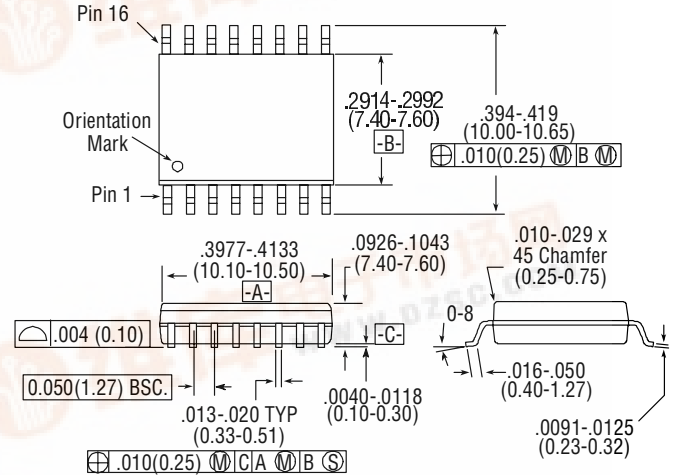
- Small Size, Low Profile
- Superior Repeatability (Lot-to-lot Variation)
- Industry Standard SOW-16 SMT Plastic Package
- Typical Isolation: 25 dB
- Typical Insertion Loss: 0.3 dB
- Low Cost
- 1 Watt Power Handling

### 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.



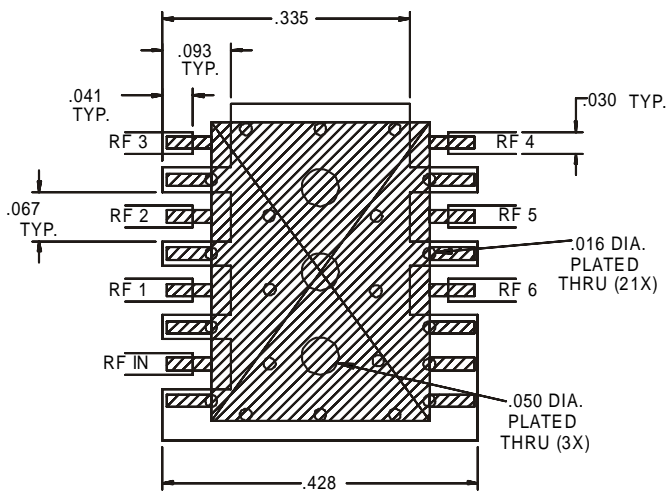
### Absolute Maximum Ratings<sup>1</sup>

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

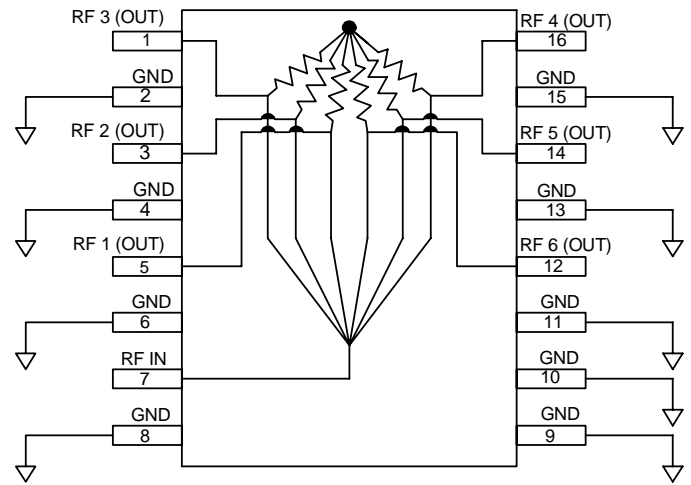
1. Exceeding these limits may cause permanent damage.
2. With internal load dissipation of 0.125 W maximum.

### Recommended PCB Configuration

(Dimensions in Inches)



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



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

### Typical Performance @ +25°C

