

Low Cost Two-Way GMIC SMT Power Divider 1700 - 2000 MHz

DS52-0006

V1.C

Features

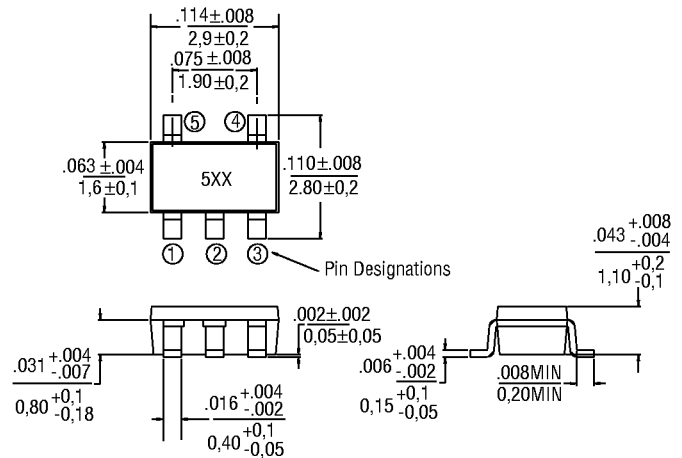
- Small Size and Low Profile
- Industry Standard SOT-25 SMT Plastic Package
- Frequency Coverage of DCS-1800 and PCS bands
- Typical Insertion Loss 0.6 dB
- Typical Amplitude Balance 0.05 dB
- 1 Watt Power Handling

Description

M/A-COM's DS52-0006 is an IC based monolithic power divider using M/A-COM's GMIC technology in a low cost SOT-25 plastic package. This 2-way power divider is ideally suited for applications where small size, low insertion loss, superior phase/amplitude tracking and low cost are required. Typical applications include handsets, base station switching networks and other communication applications where size and PCB real estate are at a premium. Available in tape and reel.

The DS52-0006 is fabricated using a passive-integrated circuit process. The process features full chip passivation for increased performance and reliability.

SOT-25



All lower dimensions are in millimeters

Ordering Information

Part Number	Package
DS52-0006	SOT-25 Lead Plastic Package
DS52-0006TR	Forward Tape and Reel*
DS52-0006RTR	Reverse Tape and Reel*

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

Typical Electrical Specifications¹, T_A = +25°C

Parameter	Units	Min.	Typ.	Max.
Insertion Loss above 3.0 dB	dB		0.6	0.9
Isolation	dB	13	18	
VSWR RF Input			1.5:1	1.8:1
VSWR RF1, RF2 Outputs			1.2:1	1.5:1
Amplitude Balance	dB		0.05	0.2
Phase Balance	°		3.0	5.0

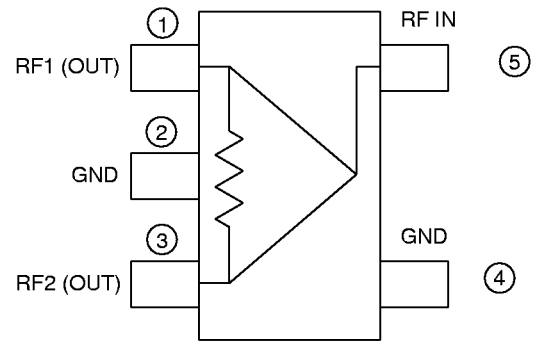
1. All specifications apply with a 50-ohm source and load impedance.

Absolute Maximum Ratings¹

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

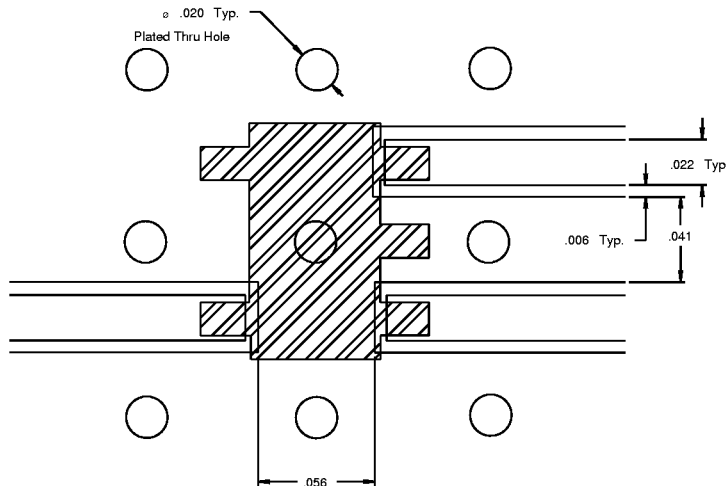
1. Exceeding these limits may cause permanent damage.
2. With internal load dissipation of 0.125 W maximum

Functional Diagram



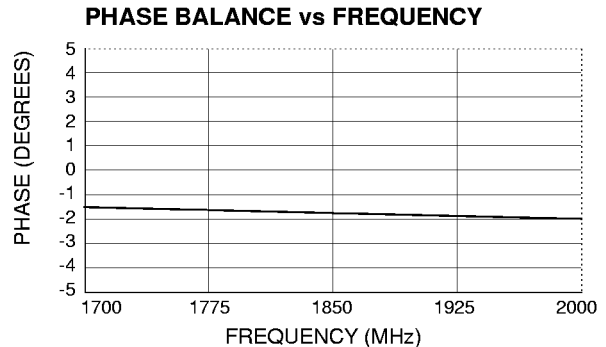
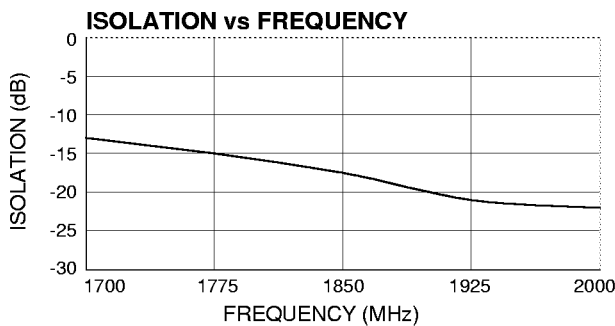
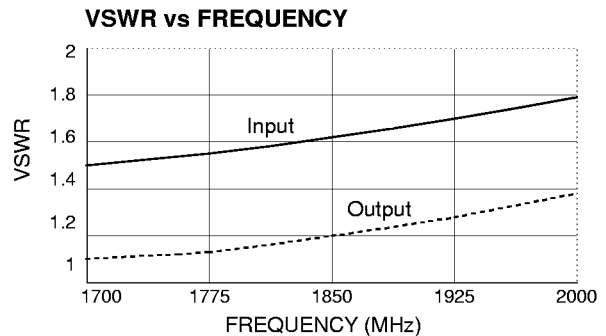
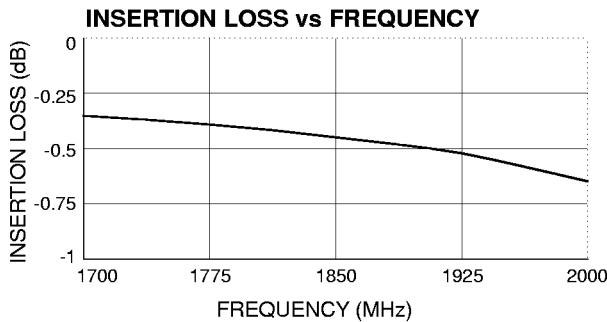
Recommended PC Board Mounting Configuration

(Dimensions in Inches)



CIRCUIT MATERIAL: FR-4, .016 THICK

Typical Performance @ +25 °C



The Preliminary Specifications Data Sheet Contains Typical Electrical Specifications Which May Change Prior to Final Introduction.

M/A-COM, Inc.

North America: Tel. (800) 366-2266 ■ Asia/Pacific: Tel. +85 2 2111 8088 ■ Europe: Tel. +44 (1344) 869 595
 Fax (800) 618-8883 Fax +85 2 2111 8087 Fax +44 (1344) 300 020