

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



Features

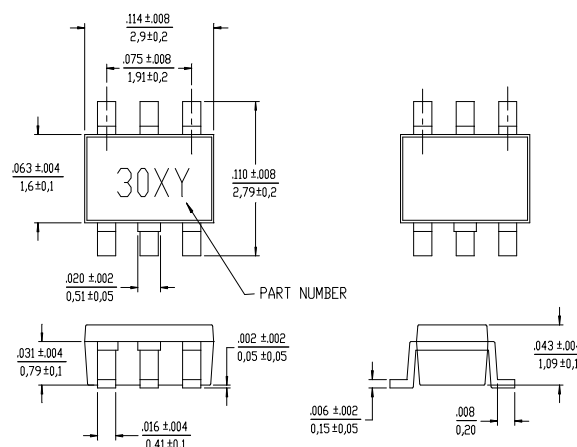
- Small Size and Low Profile
- Industry Standard SOT-26 SMT Plastic Package
- Typical Insertion Loss 0.6dB
- Typical Amplitude Balance 0.2dB
- 1 Watt Power Handling

Description

M/A-COM's DS52-0014 is an IC-based monolithic power divider using M/A-COM's GMIC technology in a low cost SOT-26 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 DS52-0014 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

SOT-26



Ordering Information

Part Number	Package
DS52-0014	SOT-26 Lead Plastic Package
DS52-0014-TR	Forward Tape and Reel ¹
DS52-0014-RTR	Reverse Tape and Reel ¹

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

Functional Configuration

Function	Pin No.
RF1 (Out)	1
RF2 (Out)	3
RF (In)	6
GND	2,4,5

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

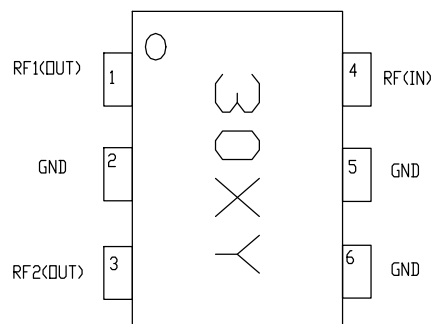
1. Exceeding these limits may cause permanent damage.
 2. With internal load dissipation of 0.125 W Maximum.

Typical Electrical Specifications¹, T_A = +25°C

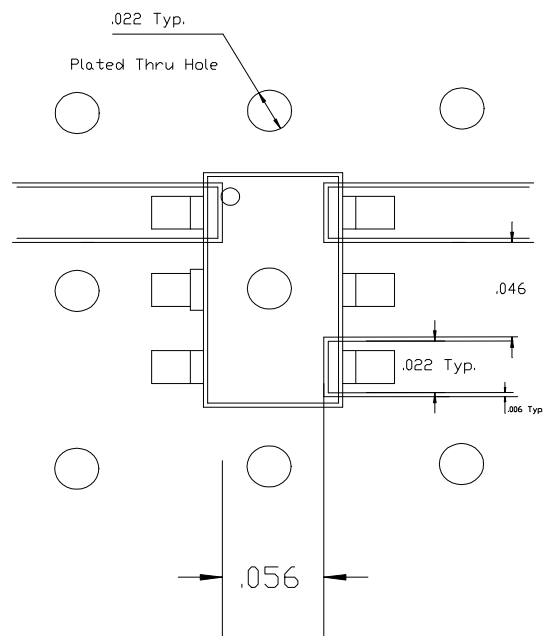
Parameter	Units	Min	Typ	Max
Insertion Loss above 3.0dB	dB	—	0.6	0.8
Isolation	dB	16	20	—
VSWR Input	—	—	1.2 : 1	1.4 : 1
RF1, RF2 Outputs	—	—	1.1 : 1	1.3 : 1
Amplitude Balance	dB	—	0.2	0.4
Phase Balance	°	—	1.5	3.0

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

Functional Diagram

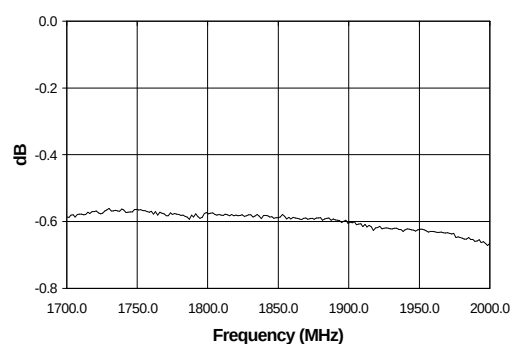


Recommended PCB Configuration

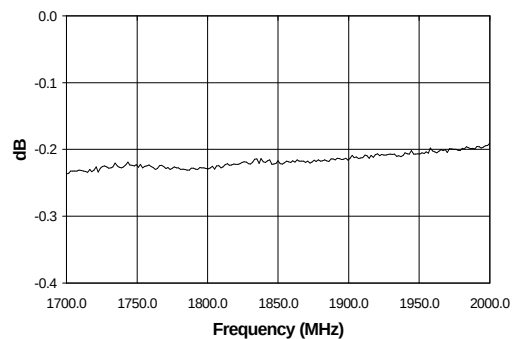


Typical Performance @ +25°C

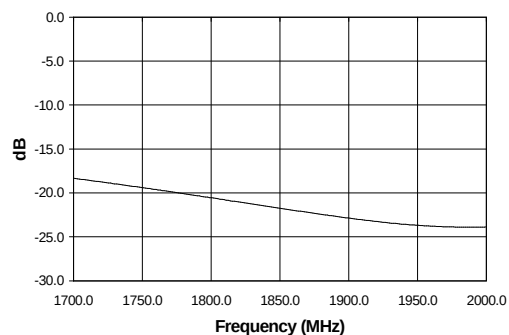
INSERTION LOSS vs FREQUENCY



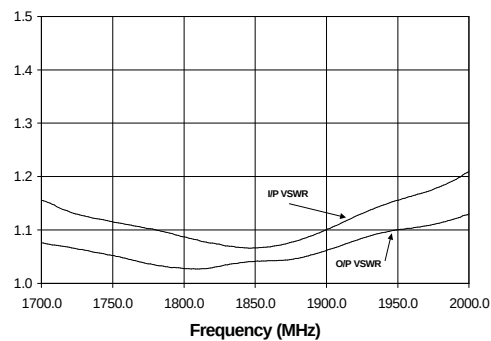
AMPLITUDE BALANCE vs FREQUENCY



ISOLATION vs FREQUENCY



VSWR vs FREQUENCY



PHASE BALANCE vs FREQUENCY

