

**E-Series 3-Way 0° Power Divider  
5 - 200 MHz**

**MAPD-008109-C30040  
V1**

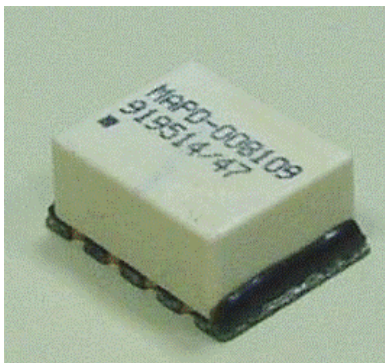
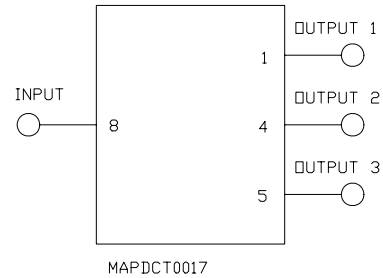
**Features**

- 3 Way
- 0 Degree
- Surface Mount
- 75 Ohms
- RoHS Compliant
- RoHS version of ESSM-3-1-75
- Available on Tape and Reel. Reel quantity 500

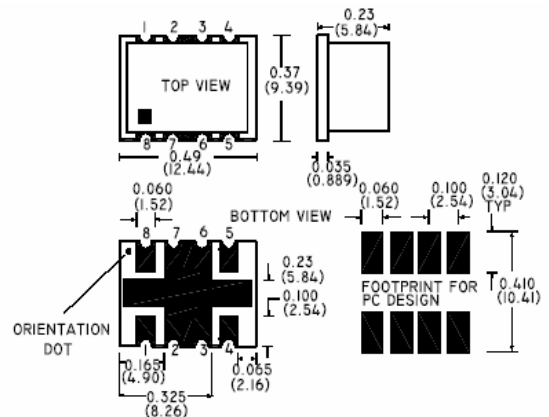
**Description**

M/A-COM's MAPD-008109-C30040 is a 3 Way 0° Power Divider in a low cost, surface mount package. Ideally suited for high volume CATV applications.

**Schematic:**



**Case Style: SM-4**



**Pin Configuration**

Pin No.	Function
2,3,6,7	Ground
1	Output Port 1
4	Output Port 2
5	Output Port 3
8	Input

Dimensions in inches [mm].  
Tolerance where not specified: .xx ± .02, .xxx ± .010

**Ordering Information**

Part Number	Package
MAPD-008109-C30040	500 piece reel
MAPD-008109-C300TB	Customer Test Board

Note: Reference Application Note **M513** for reel size information.

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

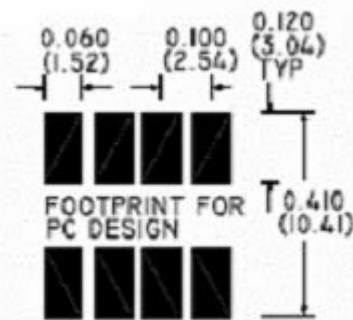
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>**

Parameter	Test Conditions	Frequency	Units	Typ	Min	Max
Insertion Loss	-	5 - 200 MHz	dB	0.28	—	0.5
Isolation	-	5 - 50 MHz	dB	37	30	—
		50 - 60 MHz	dB	40	33	—
		60 - 125MHz	dB	36	28	—
		125 - 200MHz	dB	28	24	—
Amplitude Unbalance	-	5 - 200 MHz	dB	—	—	$\pm 0.1$
Phase Unbalance	-	5 - 200 MHz	dB	—	—	$\pm 1^\circ$
Input Return Loss	-	5 - 200 MHz	dB	34	28	—
Output Return Loss	-	5 - 200 MHz	dB	25	20	—

**Absolute Maximum Ratings <sup>1,2</sup>**

Parameter	Absolute Maximum
RF Power	1 Watt
Internal Load Dissipation	0.125 Watt
Pin Temp (10 sec.)	260°C
Storage Temperature	-55°C to +100°C
Operating Temperature	-25°C to +85°C

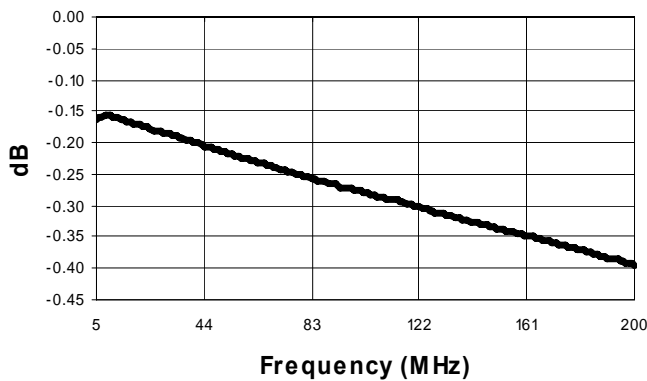
**Recommended PCB Configuration**



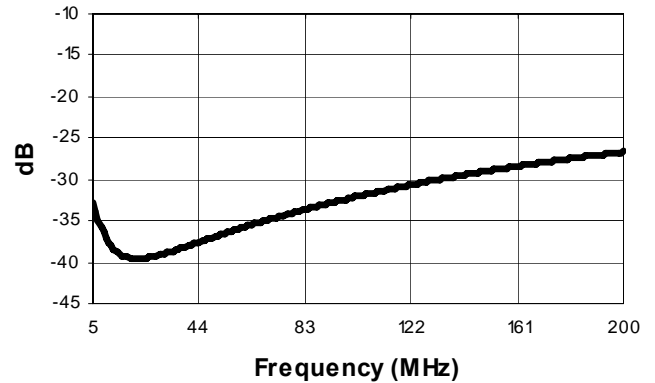
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

**Typical Performance Curves  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

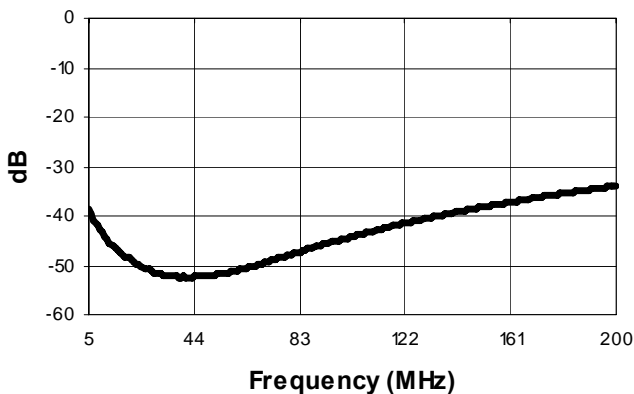
**Insertion Loss**



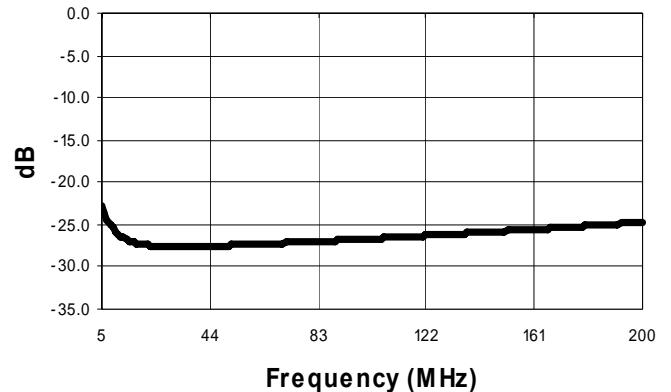
**Isolation**



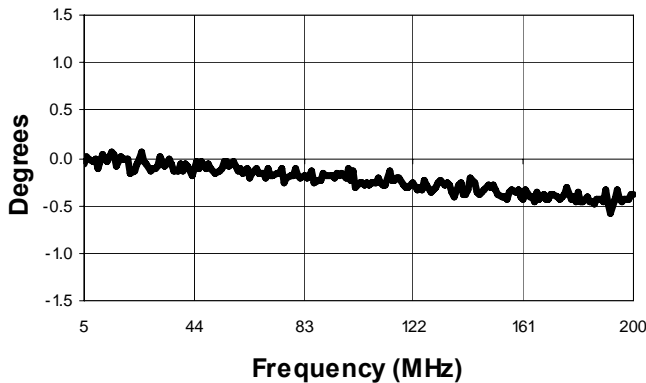
**Input Return Loss**



**Output Return Loss**



**Phase Unbalance**



**Amplitude Unbalance**

