

CATV, 1:1 Transmission Line Transformer, 5 – 3000 MHz

Revision v1

MABACT0039

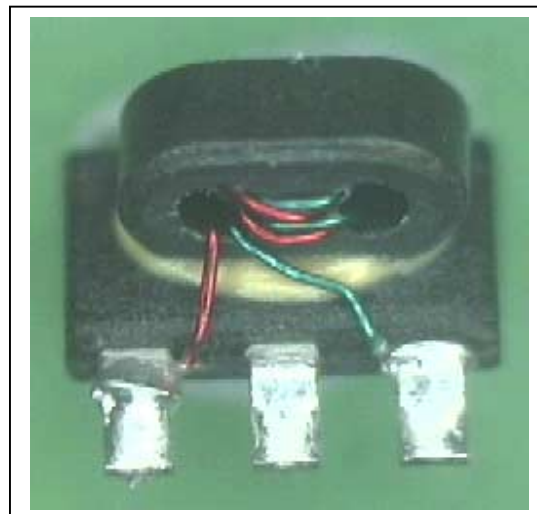
MABACT0039

Features

- SMT unit
- 1:1 impedance
- Available on tape & reel
- Excellent temperature stability
- Reel quantity 2000

Description

M/A-COM's MABACT0039 is a low cost SMT 1:1 RF transmission line transformer designed for high volume CATV Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems



Electrical Specifications @ 25°C, 75 Ohm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 5-3000 MHz					
Insertion Loss	50 - 2150 MHz	dB	—	1.0	2.0
	5 - 3000 MHz	dB	—	1.5	3.5
Amplitude Balance	50 - 2150 MHz	dB	—	1.0	±2.2
Phase Balance	50 - 2150 MHz	°	—	5.0	±13.0
Input Return Loss	5 - 550 MHz	dB	20	30	—
	550 - 2100 MHz	dB	8	15	—
Isolation between outputs	5-2400 MHz	dB	6	7	-
	2400 – 3000 MHz	dB	4	6	-

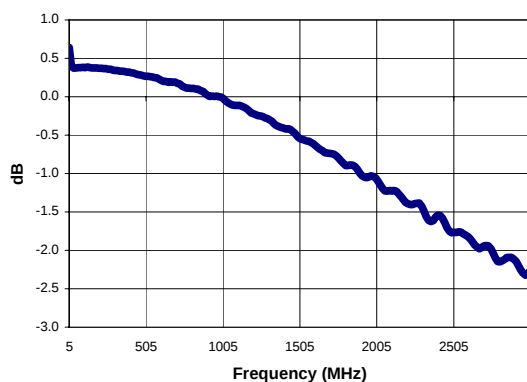
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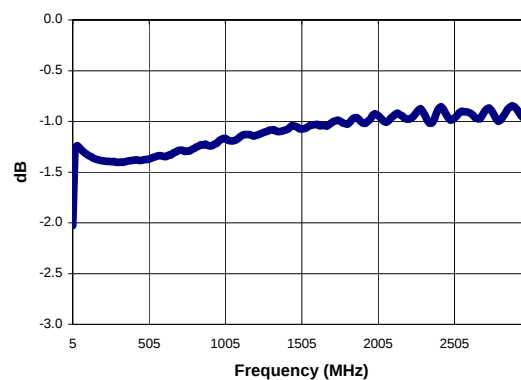
■ North America: Tel. (800) 366-266, Fax (800) 618-8883
■ Asia/Pacific: Tel.+ 81-44-844-8296, Fax+81-44-844-8298
■ Europe: Tel. +44(1908) 574 200, Fax +44(1908) 574 300

Typical Performance @ +25°C, 75 Ohm

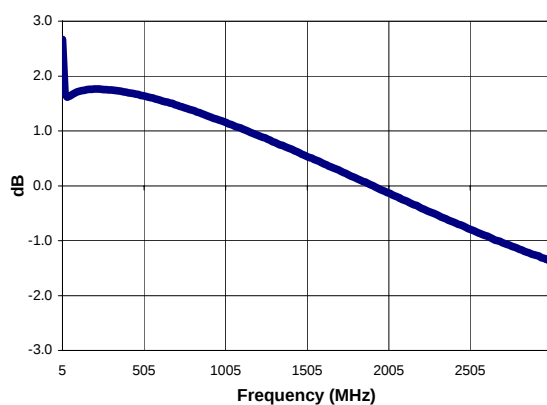
Insertion loss 1: pin 5-1, (through)



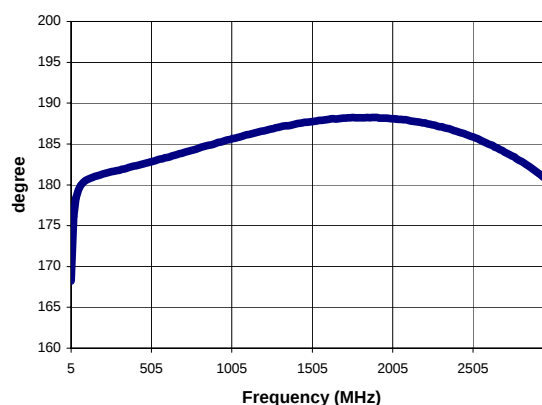
Insertion loss 2: pin 5-3 (coupled)



Amplitude balance



Phase balance

Absolute Maximum Ratings ¹

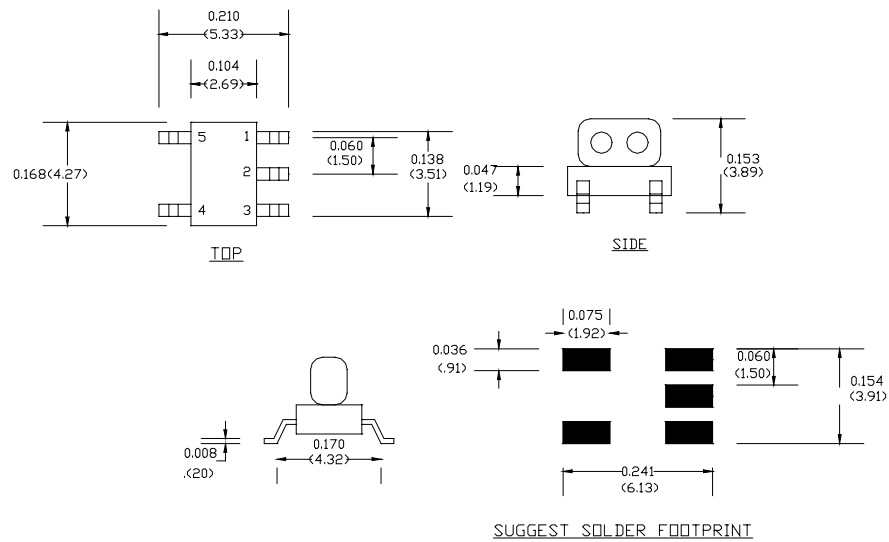
	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-40° C to +85° C

¹ Exceeding one or a combination of these settings may cause permanent damage to the unit

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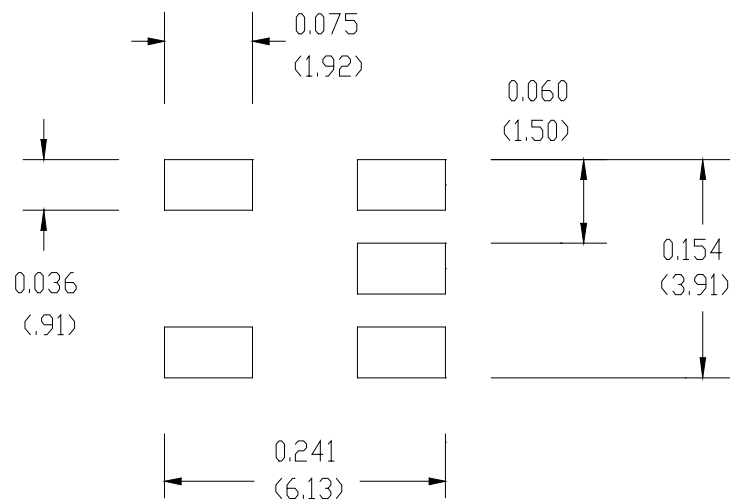
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SM-138 Case Style



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Suggested Footprint



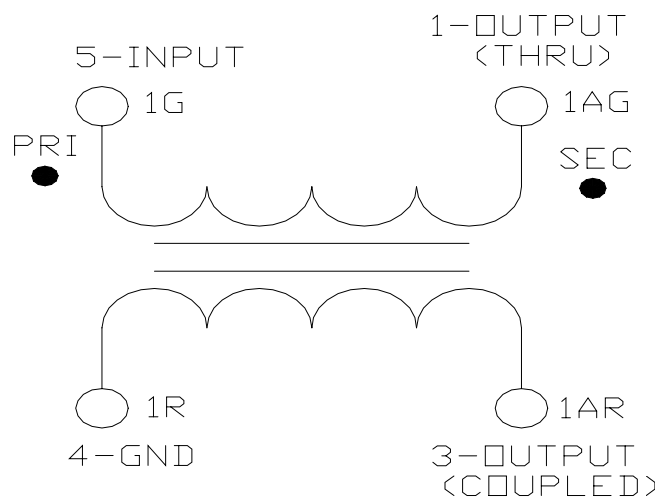
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Functional Schematic



Pin Configuration

Function	Pin No.
Primary Dot (input)	5
Primary (ground)	4
Secondary Dot (o/p 1)	1
Center Tap	2
Secondary (o/p 2)	3