

Broadband CATV 1:1 Transmission Line Transformer

MABACT0055

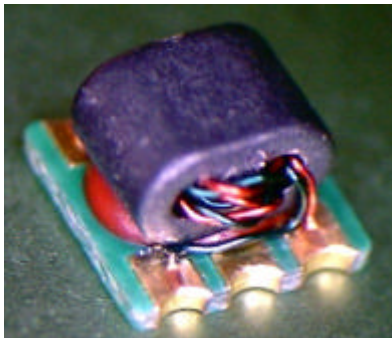
REV V1

Features

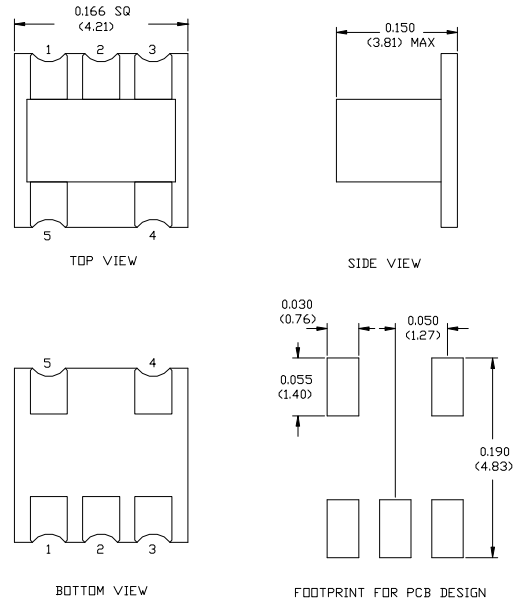
- 1:1 impedance
- SMT unit
- Available on tape & reel, 2000 parts per reel
- RoHS Compliant and is 260°C reflow compatible.
- Excellent temperature stability

Description

M/A-COM's MABACT0055 is a low cost SMT 1:1 Transmission line transformer designed for high volume CATV Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems



SM-164 Case Style



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

Electrical Specifications @ 25°C, 50 Ohm

* Monitored during production tune/test

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 5-1200 MHz					
Insertion Loss 1 * (Through) Pin 4 to pin 1	5 - 50 MHz	dB	-	0.0	0.5
	50 - 1002 MHz	dB	-	0.5	1.0
	1002 - 1100MHz	dB	-	0.8	1.0
	1100 - 1200 MHz	dB	-	0.9	1.3
Insertion Loss 2 (Coupled) Pin 4 to pin 3	5 - 50 MHz	dB	-	0.3	0.5
	50 - 1002 MHz	dB	-	0.5	1.0
	1002 - 1100MHz	dB	-	0.4	1.0
	1100 - 1200 MHz	dB	-	0.6	1.3
Amplitude Balance	5 - 1200 MHz	dB	-	± 0.3	± 0.6
Phase Balance	5 - 20MHz	°	-	± 5.0	± 11.0
	20 - 1200 MHz	°	-	± 5.0	± 7.0
Input Return Loss	5 - 100MHz	dB	22	26	-
	100 - 1200 MHz	dB	10	14	-

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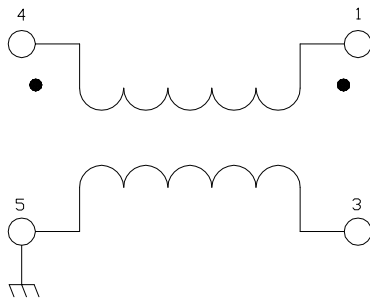
Pin Configuration

Function	Pin Number
Primary Dot (input)	4
Primary (ground)	5
Secondary (o/p 2 coupled)	3
Secondary Dot (o/p 1 through)	1

Absolute Maximum Ratings¹

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

Schematic



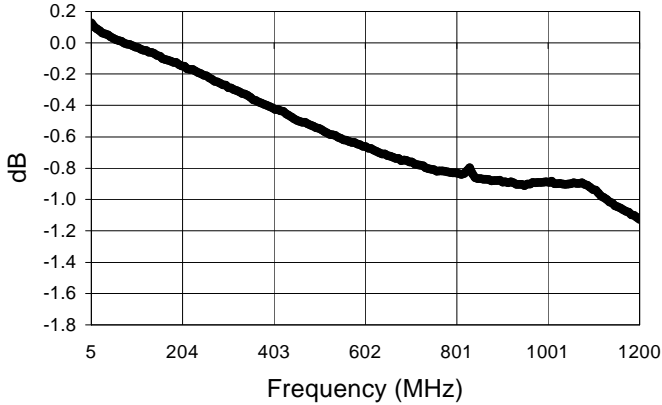
¹ Exceeding one or a combination of these settings may cause permanent damage to the unit

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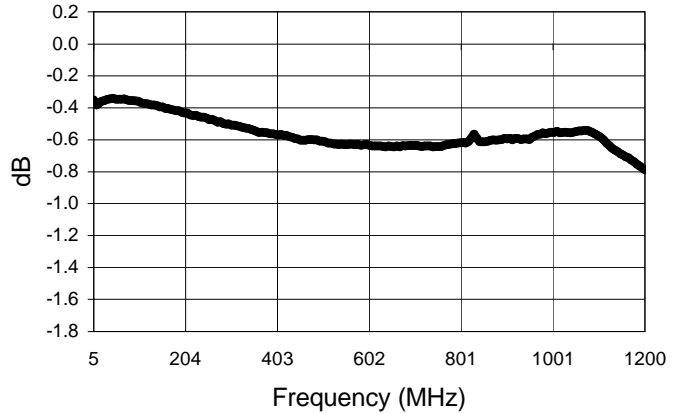
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Typical Performance Curves @ +25°C, 50 Ohm

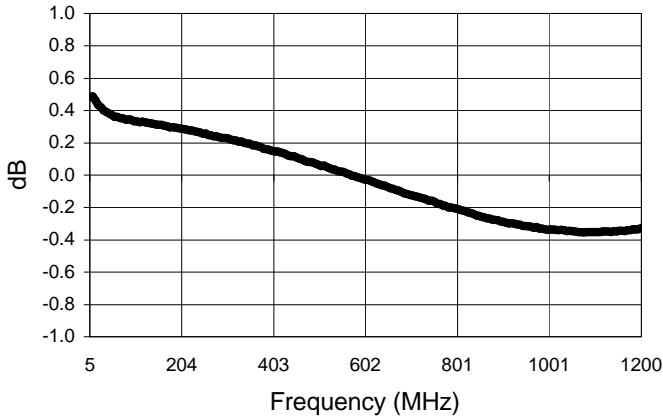
Insertion Loss 1 (through): pin 4-1



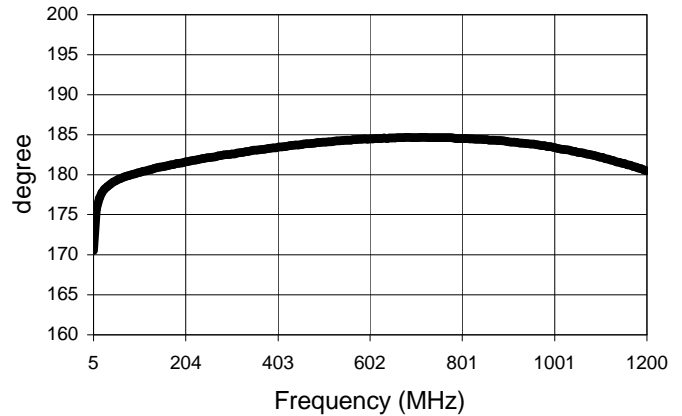
Insertion Loss 2 (coupled): pin 4-3



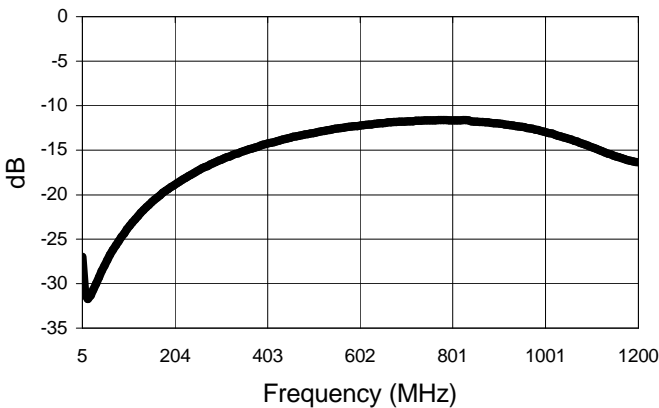
Amplitude Balance



Phase Balance



Input Return Loss



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