

## 1:1 Transmission line

v2

## Transformer 5 – 1000 MHz

MABACT0044

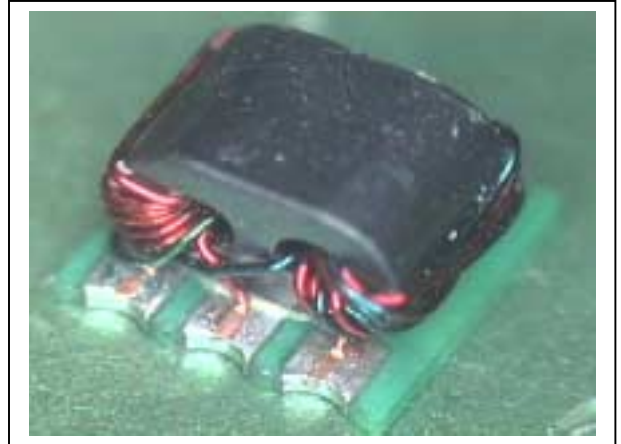
MABACT0044

## Features

- SMT unit
- 1.33:1 impedance
- 75Ω single ended to 100Ω Balanced
- Available on tape & reel
- Excellent temperature stability

## Description

M/A-COM's MABACT0044 is a 1.33:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



## Electrical Specifications @ 25°C, 75 Ohm

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 5-1000 MHz					
Insertion Loss 1 (Pin 1 – 4) through	5 - 870 MHz	dB	—	1.5	1.9
	870 - 1000 MHz	dB	—	2.0	2.7
Insertion Loss 2 (Pin 3 – 4) coupled	5 - 50 MHz	dB	—	1.0	1.5
	50 - 870 MHz	dB	—	0.8	1.2
	870 - 1000 MHz	dB	—	0.9	1.5
Amplitude Balance	5 - 50 MHz	dB	—	±1.2	±1.9
	50 - 870 MHz	dB	—	±0.4	±1.1
	870 - 1000 MHz	dB	—	±0.7	±1.5
Phase Balance	5 - 50 MHz	°	—	±10	±25
	50 - 1000 MHz	°	—	±4	±10
Input Return Loss	5 - 20 MHz	dB	13	18	—
	20 - 200 MHz	dB	20	25	—
	200 - 400 MHz	dB	15	22	—
	400 - 700 MHz	dB	10	15	—
	700-1000 MHz	dB	8	12	—

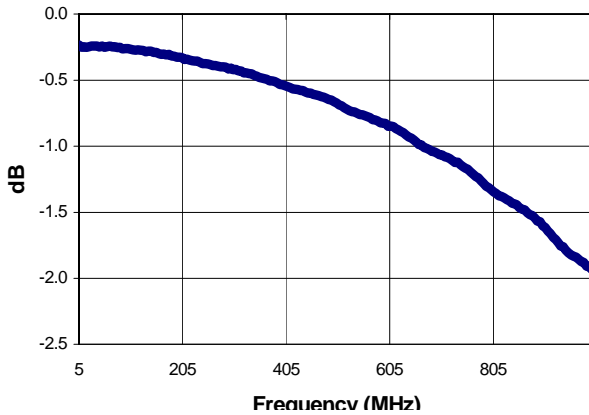
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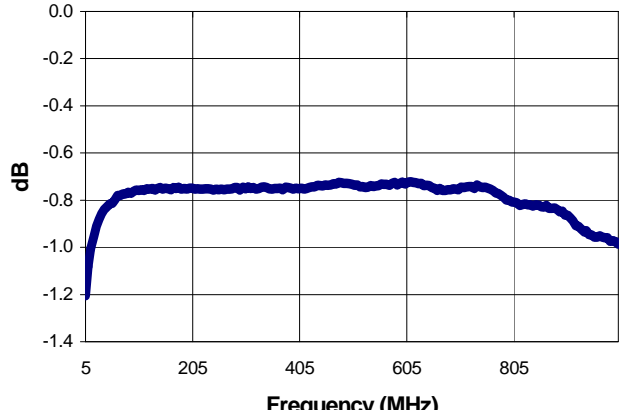
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Typical Performance @ +25°C, 75 Ohm

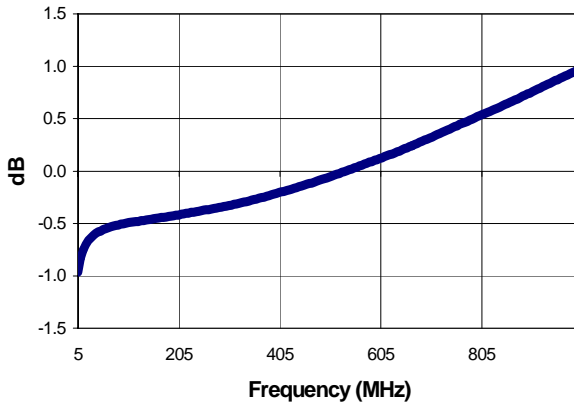
Insertion Loss 1 (through): Pin 1–4



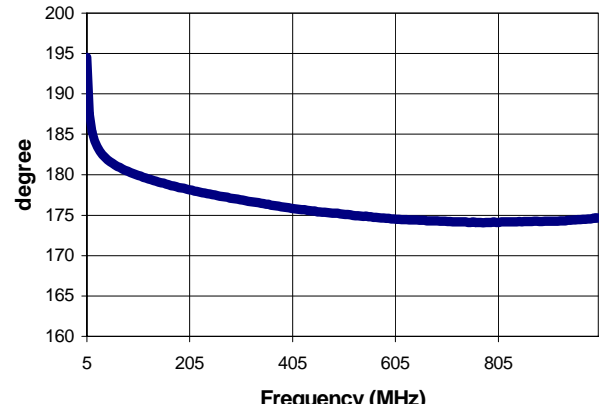
Insertion Loss 2 (coupled): Pin 3–4



Amplitude balance



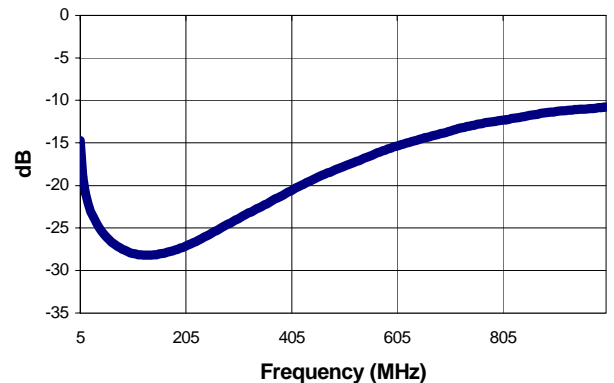
Phase balance



Absolute Maximum Ratings <sup>1</sup>

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

Input Return Loss

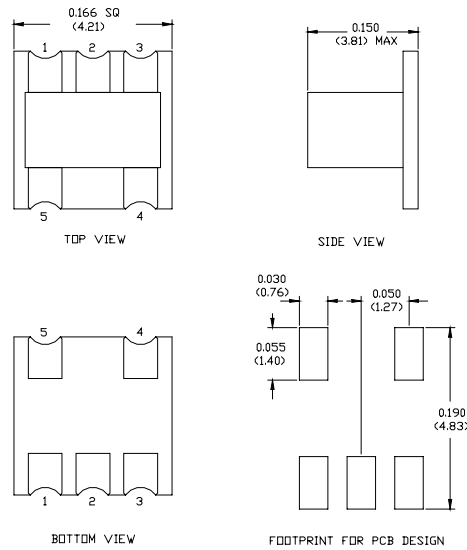


<sup>1</sup> Exceeding one or a combination of these settings may cause permanent damage to the unit

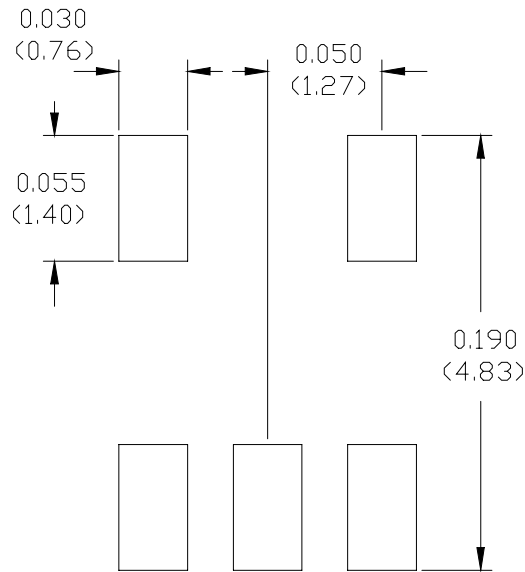
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### SM-164 Case Style



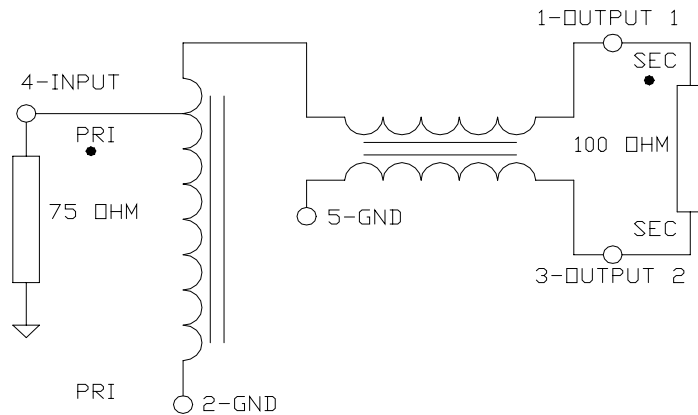
### Suggested Footprint



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### Functional Schematic



### Pin Configuration

Function	Pin No.
Primary Dot (Input)	4
Primary (Ground)	2
Secondary Dot (Output 1)	1
Secondary (Output 2)	3
Ground	5

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