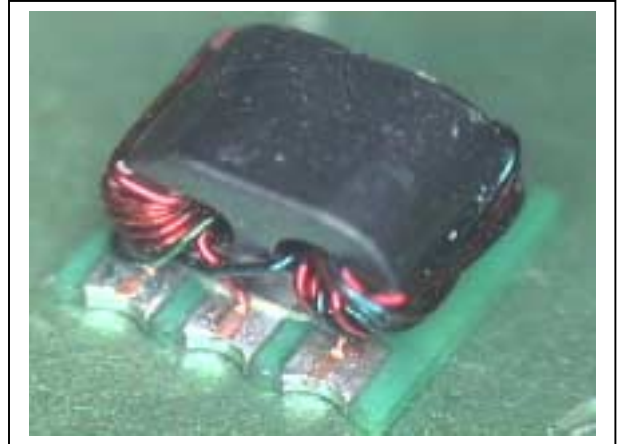


**Features**

- 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	—

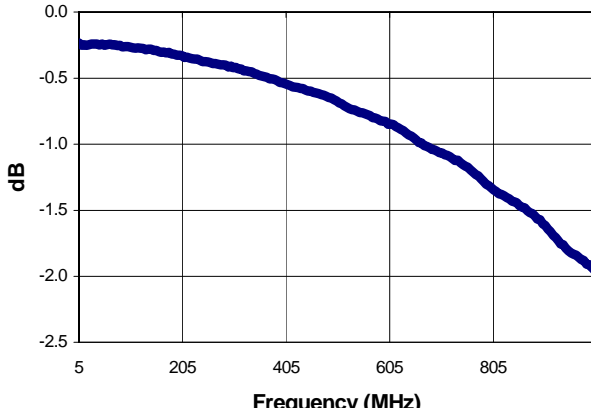
M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) Or information contained herein without notice

Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information

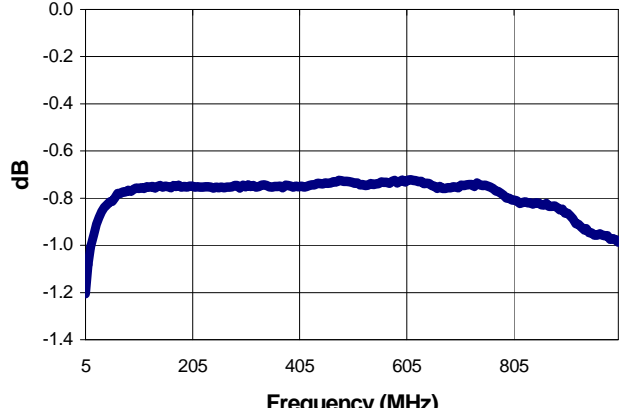
■ North America: Tel. (800) 366-266, Fax (800) 618-8883  
 ■ Asia/Pacific: Tel.+ 81-44-844-8296, Fax+81-44-844-8298  
 ■ Europe: Tel. +44(1908) 574 200, Fax +44(1908) 574 300

Typical Performance @ +25°C, 75 Ohm

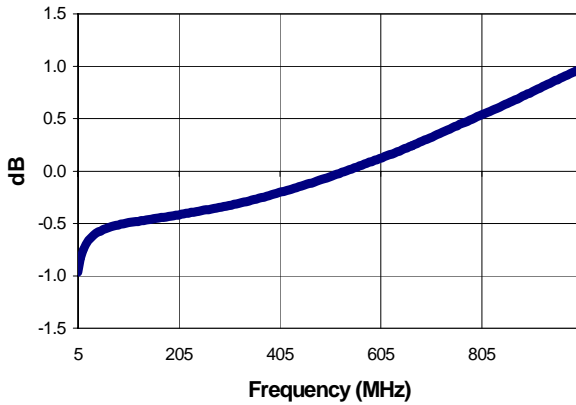
Insertion Loss 1 (through): Pin 1–4



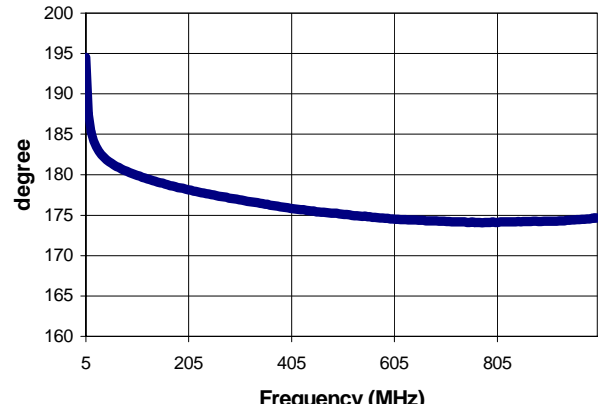
Insertion Loss 2 (coupled): Pin 3–4



Amplitude balance



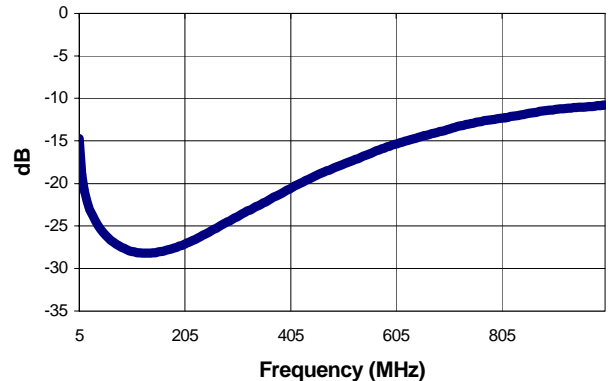
Phase balance



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

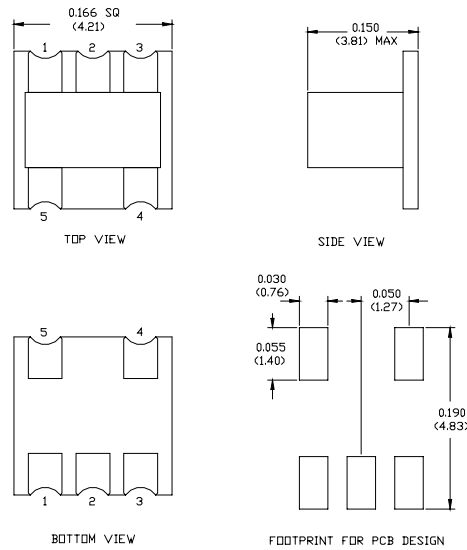


<sup>1</sup> Exceeding one or a combination of these settings may cause permanent damage to the unit

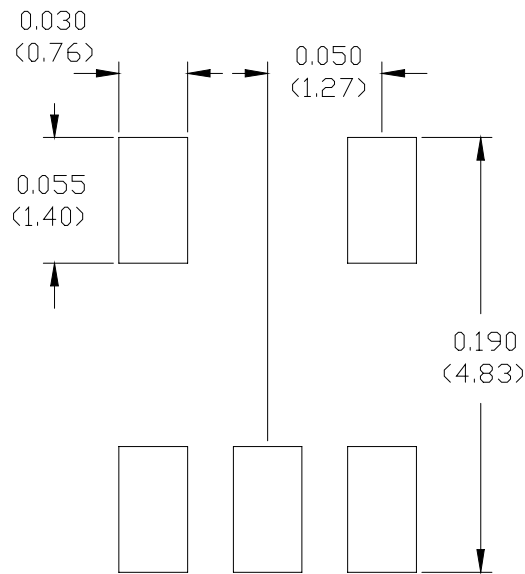
M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s)  
 Or information contained herein without notice  
 Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information

■ 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

### SM-164 Case Style



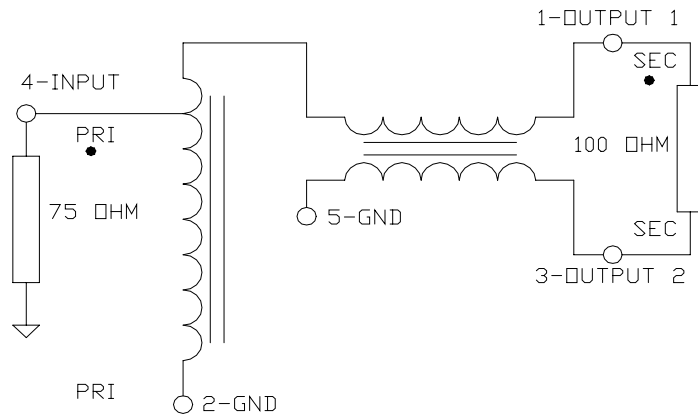
### Suggested Footprint



M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s)  
 Or information contained herein without notice  
 Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information

■ 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

### 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

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s)  
 Or information contained herein without notice  
 Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information

■ 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