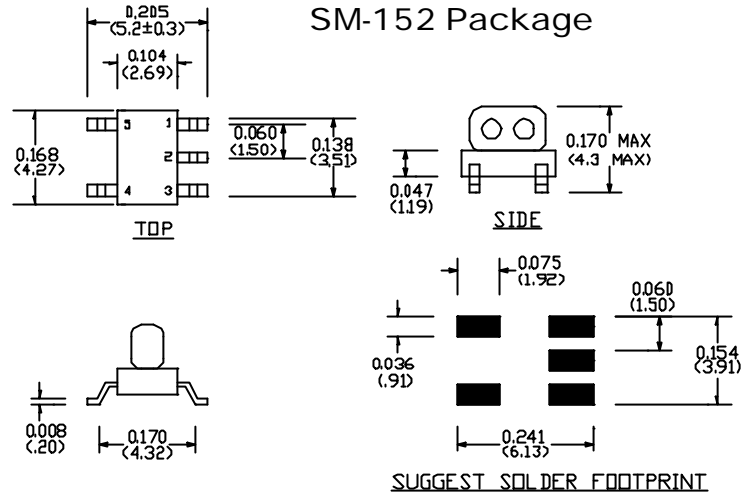


# 1:1 Transmission Line Transformer

## 50 – 2150 MHz

MABACT0013



### Features

- Surface Mount
- 1:1 Impedance
- Available on Tape & Reel

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

### Description

M/A-COM's MABACT0013 is a 1:1 RF transmission line transformer in a low cost, surface mount package. The windings of the MABACT0013 are welded to the package substrate for improved reliability and reduced lead content. This Transformer is ideally suited for CATV and Satellite STB/Subscriber applications.

### Electrical Specifications @ 25°C, Z<sub>0</sub> = 75 Ohms

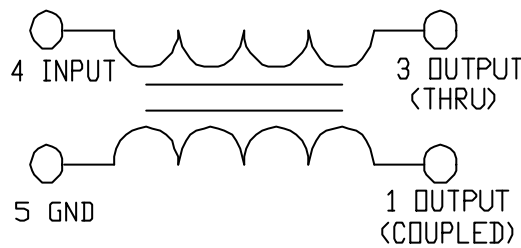
Frequency Range 50 - 2150 MHz	Test Conditions	Nominal	Units	Min.	Typ.	Max.
Insertion Loss (Above 3dB)	50 - 950 MHz	—	dB	—	0.5	1.2
	950 - 2150 MHz	—	dB	—	1.2	3.1
Amplitude Unbalance	50 - 2150 MHz	—	dB	—	0.3	2.0
Phase Unbalance	50 - 2150 MHz	—	°	—	7°	17°
Input Return Loss	50 - 2150 MHz	—	dB	13	16	—

Note: Specifications subject to change without notice.

**Absolute Maximum Ratings**

Parameter	Absolute Maximum
RF Power	1 Watt
Internal Load Dissipation	0.125 Watt
Storage Temperature	-40° C to +85° C
Operating Temperature	-40° C to +80° C

**Schematic**

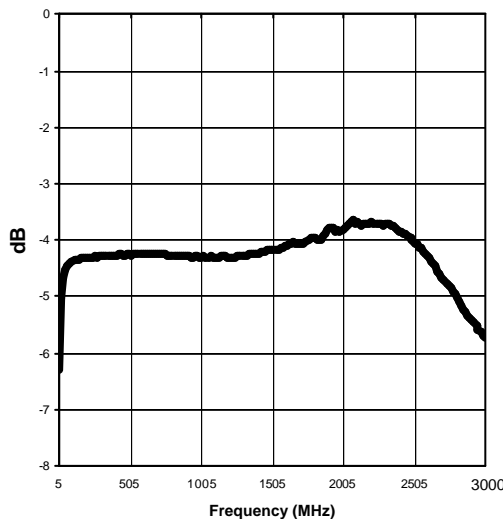


**Operating Characteristics**

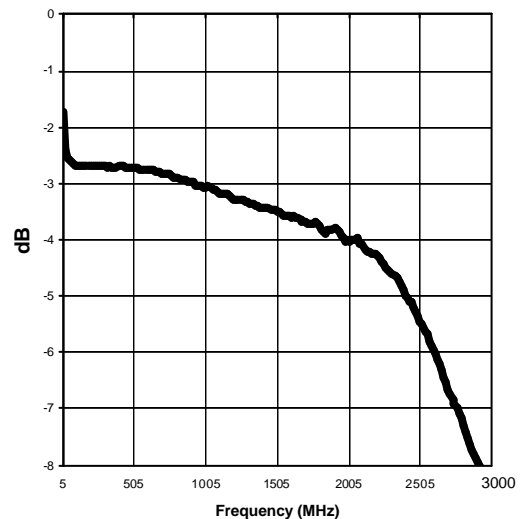
Function	Pin No.
Primary Dot (Input)	4
Primary (Ground)	5
Secondary Dot (Output through)	3
Secondary (Output coupled)	1
Not used (Ground)	2

**Typical Performance @ +25° C**

**Insertion Loss coupled**



**Insertion Loss through**



Rev -

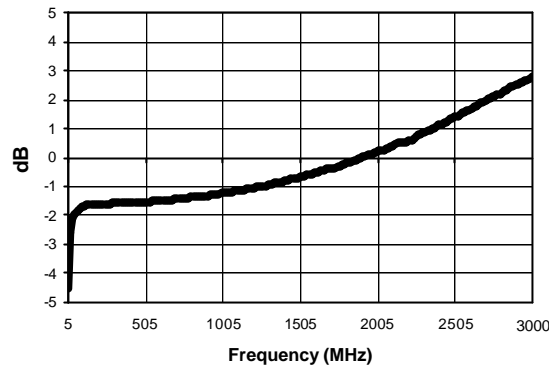
Specifications subject to change without notice.

- North America: Tel. (800) 366-2266, Fax (800) 618-8883
- Asia/Pacific: Tel.+81-44-844-8296, Fax +81-44-844-8298
- Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

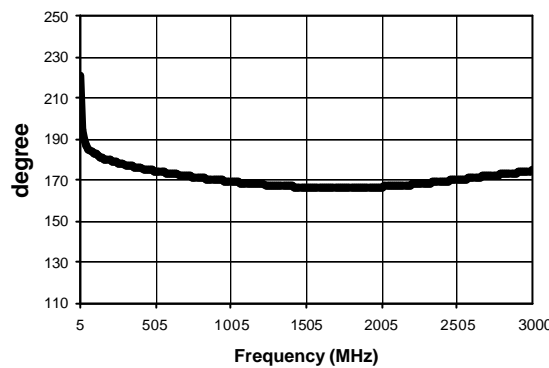
visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.



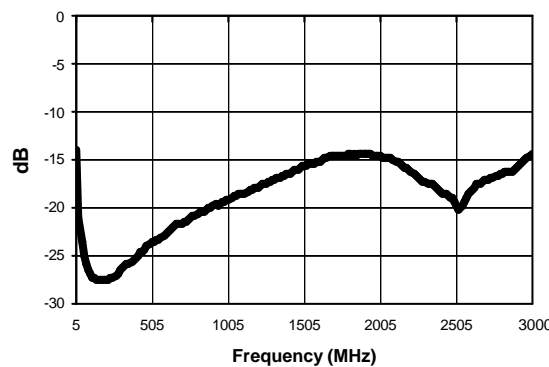
**Amplitude Unbalance**



**Phase Unbalance**



**Input Return Loss**



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

