

**2.66:1 Transmission Line Transformer  
50-870MHz**

**MABACT0074  
V1P**

**Features**

- Surface Mount
- 2.66:1 Impedance
- Excellent amplitude and phase balance
- 260°C Reflow Compatible
- RoHS\* Compliant
- RoHS version of MABACT0017
- Available on Tape and Reel. Reel quantity 2000

**Description**

M/A-COM's MABACT0074 is a 4:1 Tx Transformer. This part is characterized in a 2.66:1 impedance environment. This Transformer is provided in a low cost, surface mount package. The windings of the MABACT0074 are welded to the package substrate for improved reliability and reduced lead content. Ideally suited for high volume CATV and Satellite

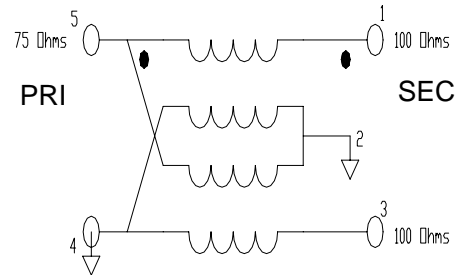


**Pin Configuration**

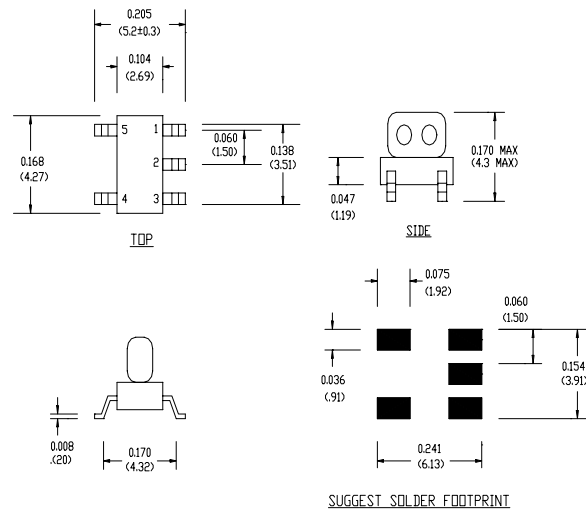
Pin No.	Function
1	Output 1: (Secondary dot)
2	Ground, Centre Tap
3	Output 2: (Secondary)
4	Ground (Primary)
5	Input (Primary dot)

Note: Reference Application Note **M513** for reel size information.

**Schematic**



**Case Style: SM-152**



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

**Ordering Information**

Part Number	Package
MABACT0074TR	2000 piece reel
MABA-007970-CT74TB	Customer Test Board

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

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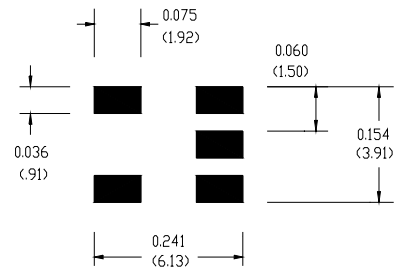
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss (Below the ref Level)	50 - 150 MHz	dB	-	-	2.2
	150 - 650 MHz	dB	-	-	1.5
	650 - 870 MHz	dB	-	-	2.0
Amplitude Unbalance (Nominal 0dB)	50 - 250 MHz	dB	-	$\pm 0.1$	$\pm 0.2$
	250 - 650 MHz	dB	-	$\pm 0.2$	$\pm 0.4$
	650 - 870 MHz	dB	-	$\pm 0.3$	$\pm 0.6$
Phase Unbalance (Nominal 180°)	50 - 150 MHz	°	-	$\pm 2$	$\pm 5$
	150 - 450 MHz	°	-	$\pm 5$	$\pm 10$
	450 - 870 MHz	°	-	$\pm 8$	$\pm 15$
Input Return Loss	50 - 870 MHz	dB	-	10	8

**Absolute Maximum Ratings <sup>1,2</sup>**

Parameter	Absolute Maximum
Max Input Power	1 W
Internal Load Dissipation	0.125 W
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +100°C

**Recommended PCB Configuration**

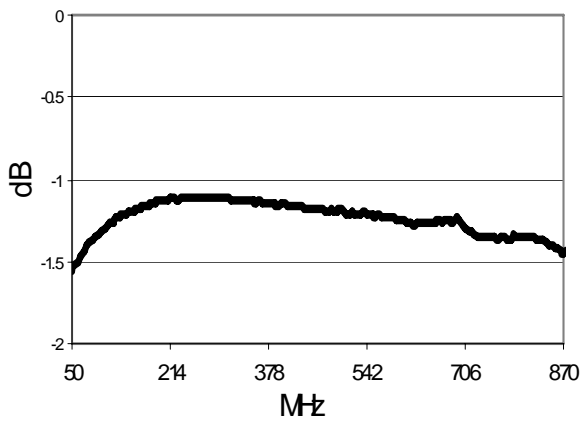


SUGGEST SOLDER FOOTPRINT

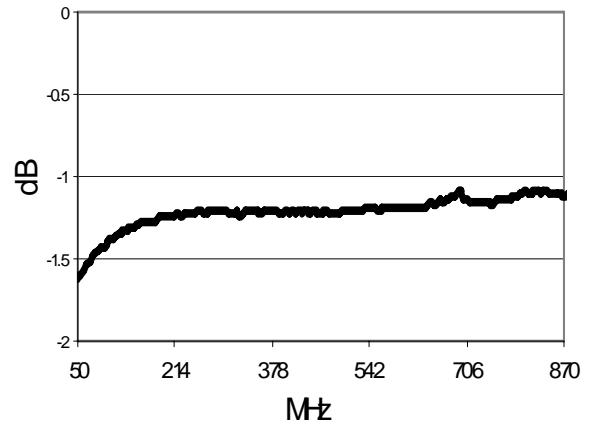
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

**Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$**

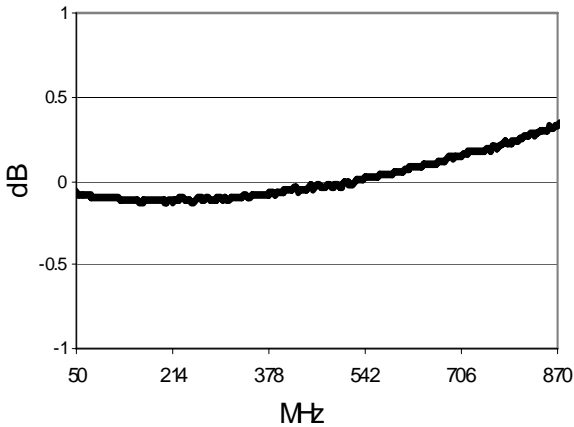
**Insertion Loss 1 (Through pin 5 to pin 1)**



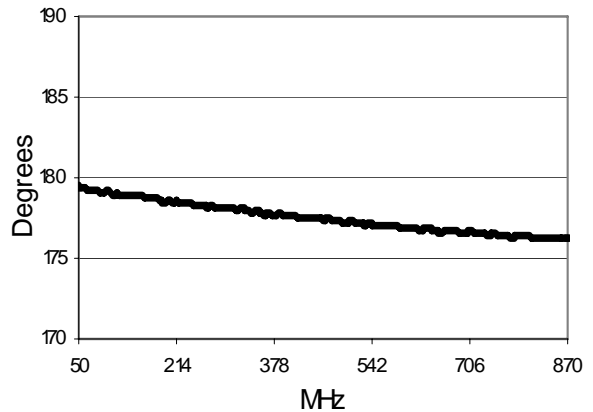
**Insertion Loss 2 (Coupled pin 5 to pin 3)**



**Amplitude Unbalance**



**Phase Balance**



**Input Return Loss**

