

Rev. V4

#### **Features**

- Surface mount
- 4:1 Impedance ratio
- Excellent amplitude and phase balance
- Can be used in both  $50\Omega$  and  $75\Omega$  systems
- 260°C reflow compatible
- RoHS\* compliant, Pb free
- Available on tape and reel.

### **Description**

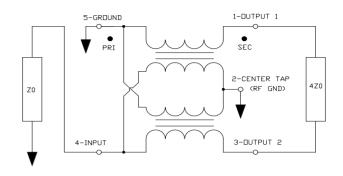
M/A-Com Technology Solutions MABACT0066 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for broadband CATV Broadband applications.



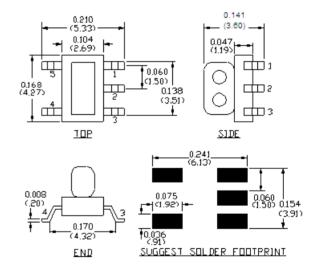
### Pin configuration

Pin no.	Function
1	Secondary dot (Output 1)
2	Centre tap (Ground)
3	Secondary (Output 2)
4	Primary (Input)
5	Primary dot (Ground)

#### **Schematic**



## **Component Dimensions**



Dimensions in inches [mm] Tolerance: .xx  $\pm$  .02, .xxx  $\pm$  .010, unless otherwise stated

<sup>\*</sup> Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.



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# Electrical Specifications: $T_A = 25$ °C, $Z_0 = 50\Omega$ , $P_{in} = 0$ dBm

Parameter	Test Conditions	Units	Min	Тур	Max
Insertion Loss 1	5 - 50 MHz 50 - 879 MHz 879 - 1000 MHz	dB dB dB	- - -	1.5 1.0 1.5	2.0 1.5 2.0
Amplitude Unbalance (Nominal 0dB)	5 - 1000 MHz	dB	-	±0.25	±0.5
Phase Unbalance (Nominal 180°)	5 - 500 MHz 500 - 1000 MHz	0	-	±4 ±8	±8 ±12

# Recommended Maximum Ratings<sup>1,2</sup>

Parameter	Value
Max input power	250mW
DC current	120mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

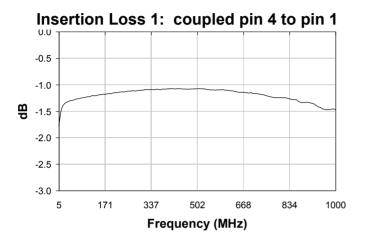
Exceeding any one or combination of these limits may cause permanent damage to this device.

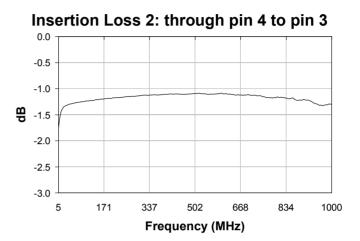
M/A-COM does not recommend sustained operation near these survivability limits.



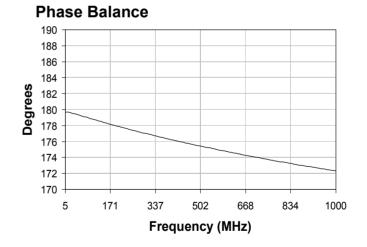
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Typical Performance Curves:  $T_A = 25^{\circ}C$ ,  $Z_0 = 50\Omega$ ,  $P_{in} = 0$ dBm



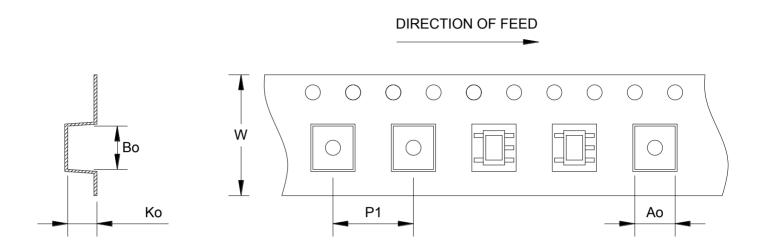


### **Amplitude Balance** 0.6 0.4 0.2 0.0 -0.2 -0.4 -0.6 5 171 337 502 668 834 1000 Frequency (MHz)





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Item	Dimension	
Ao	6.10mm +/- 0.1mm	
Во	4.60mm +/- 0.1mm	
Ko	4.00mm +/- 0.1mm	
W	12.00mm +/- 0.3mm	
P1	8.00mm +/- 0.1mm	

## **Ordering information**

Part number	Description
MABACT0066	2000 piece reel
MABA-007968-CT66TB	Customer Test Board

# MABACT0066



Transformer, 4:1 transmission line 5 to 1000 MHz

Rev. V4

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