## 1:1 Broadband CATV, Flux Coupled Transformer 5-120MHz

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#### MABACT0047 V1

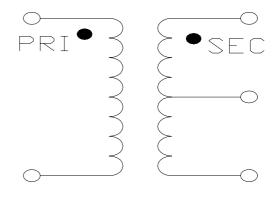
#### Features

- Surface Mount
- 1:1 Flux Coupled
- 260°C Reflow Compatible
- Excellent temperature stability
- Available on Tape and Reel. Reel quantity 2000

### Description

M/A-COM's MABACT0047 is a low cost 1:1 Flux Coupled Transformer designed for high volume CATV Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems

### Schematic

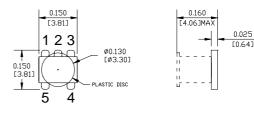


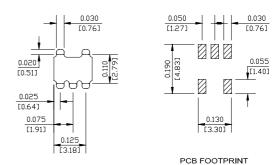


### **Pin Configuration**

Pin No.	Function		
1	Secondary Dot (output 1)		
2	Centre Tap		
3	Secondary (output 2)		
4	Primary (ground)		
5	Primary Dot (input)		

### Case Style: SM-22A





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

### **Ordering Information**

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Part Number	Package		
MABACT0047	Reel Quantity 2000		

Note: Reference Application Note M513 for reel size information.

- 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 for additional data sheets and product information.

<sup>•</sup> North America Tel: 800.366.2266 / Fax: 978.366.2266

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### Electrical Specifications: $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega^{-1}$

Parameter	Frequency	Units	Min	Тур	Max
Frequency Range:	5 - 120 MHz				
Insertion Loss	5 - 120 MHz	dB	-	0.4	0.6
Amplitude Balance	5 - 120 MHz	dB	-	± 0.1	± 0.3
Phase Balance	5 - 120 MHz	0	-	± 0.5	± 2.0
Input Return Loss	5 - 65 MHz 65 - 120 MHz	dB dB	22 17	28 23	-

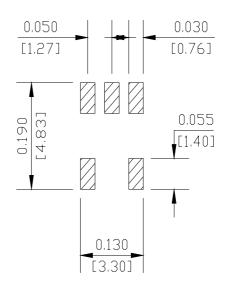
### Absolute Maximum Ratings <sup>1,2</sup>

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

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.

### **Recommended PCB Configuration**



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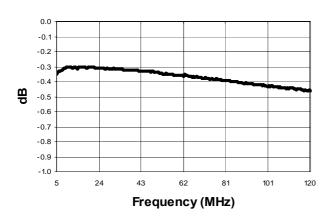
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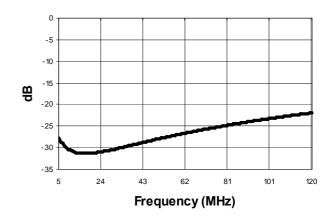
## 1:1 Broadband CATV, Flux Coupled Transformer 5-120MHz

## Typical Performance Curves: $T_A = 25^{\circ}C$ , $Z_0 = 75\Omega^{-1}$

#### **Insertion Loss**



### Return Loss: Input

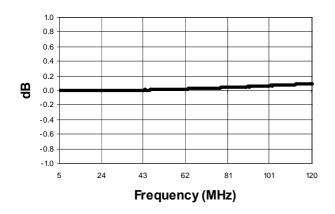


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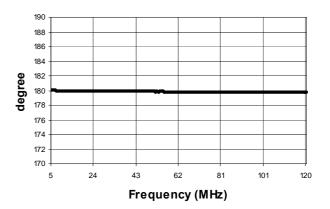
**MABACT0047** 

V1

#### **Amplitude Balance**



**Phase Balance** 



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