# MABAES0032



Transformer, 1:1 Transmission Line Transformer 5 to 1000 MHz

M/A-COM Products Rev. V3

#### **Features**

- Surface mount
- 1:1 Impedance ratio
- 260°C reflow compatible
- RoHS\* compliant and lead free
- Available on tape and reel

### **Description**

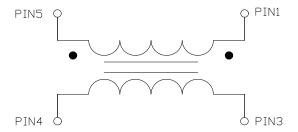
M/A Com's MABAES0032 is a 1:1 RF Transmission Line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications. Typical applications include single to balances mode conversion and impedance matching.



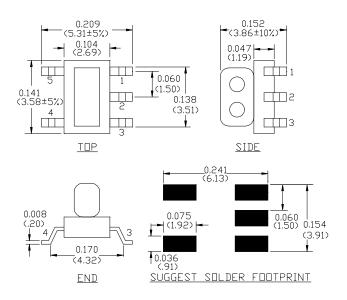
### **Pin Configuration**

Pin no.	Function		
1	Secondary dot		
2	Not used (Ground)		
3	Secondary		
4	Primary		
5	Primary Dot		

#### **Schematic**



## Case style: SM-138



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

#### **Ordering Information**

Part number	Description		
MABAES0032	2000 piece reel		

Note: Reference Application Note M513 for reel size information.

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

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed. PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.4155721
- China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

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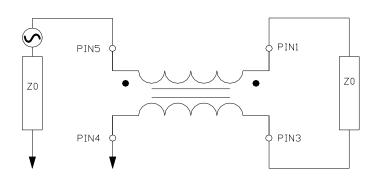
# Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 50\Omega$ , $P_{in} = 0$ dBm

Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss	5 - 300 MHz 300 - 1000 MHz	dB dB	-	0.7 1.3	1.0 1.8
Amplitude Unbalance (Nominal 0dB)	5 - 1000 MHz	dB	-	0.4	±0.8
Phase Unbalance (Nominal 180°)	5 - 300 MHz 300 - 1000 MHz	0	-	3.0 7.0	±5.0 ±10.0

# **Recommended Maximum Ratings**

Parameter	Value		
Input power	At least +24dBm (250mW)		
DC current	At least 30mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +100°C		

# **Application Circuit**



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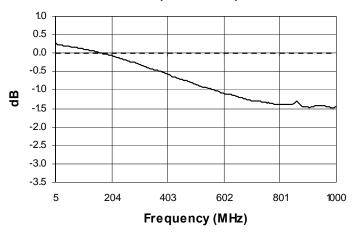


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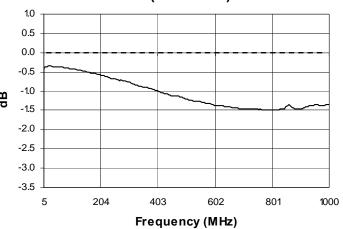
M/A-COM Products Rev. V3

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

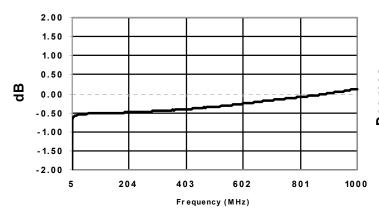
## Insertion Loss 1: (Pin 4 to 1)



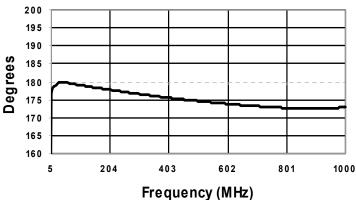
## Insertion Loss 2: (Pin 4 to 3)



#### **Amplitude Balance**



### **Phase Balance**



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