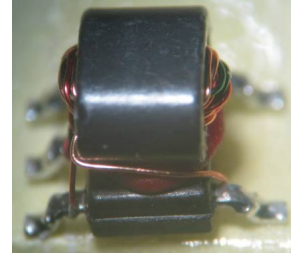


## Features

- Surface mount
- 2:1 impedance
- CT on Secondary
- RoHS\* Compliant
- 260°C reflow compatible.
- Available on Tape and Reel

## Product Image



## Description

M/A-COM's MABAES0040 is a 2:1 RF flux coupled transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.

## Ordering Information

Part Number	Package
MABA-009387-ES0040	2000 piece reel

## Electrical Specifications: $T_A = 25^\circ\text{C}$ , $Z_0 = 50\Omega$ <sup>1</sup>

Parameter	Test Conditions	Test Conditions	Units	Min	Typ	Max
RF Frequency	-	1 - 350	MHz	-	-	-
Insertion Loss	-	1 - 150	dB	-	0.7	1.0
		150 - 250	dB	-	1.6	2.0
		250 - 350	dB	-	2.6	3.0
Amplitude Unbalance	-	1 - 150	dB	-	0.3	0.5
		150 - 250	dB	-	0.7	1.0
		250 - 350	dB	-	1.5	2.0
Phase Unbalance	-	1 - 250	Degree	-	2.5	5.0
		250 - 350	Degrees	-	8.0	12.0

## Pin Configuration

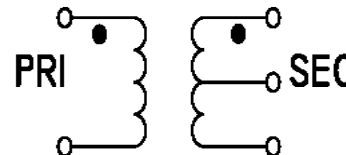
Pin No.	Function
1	Secondary Dot
2	Secondary CT
3	Secondary
4	Primary
5	Primary Dot

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

Parameter	Absolute Maximum
DC Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°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.

## Schematic



**This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.**

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

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM 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 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 / Fax: 978.366.2266

• **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300

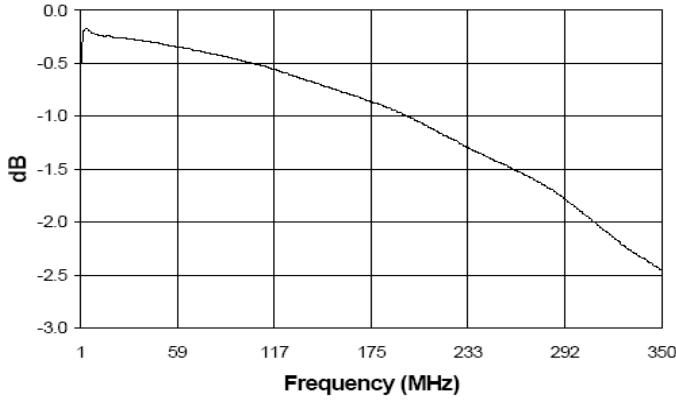
• **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

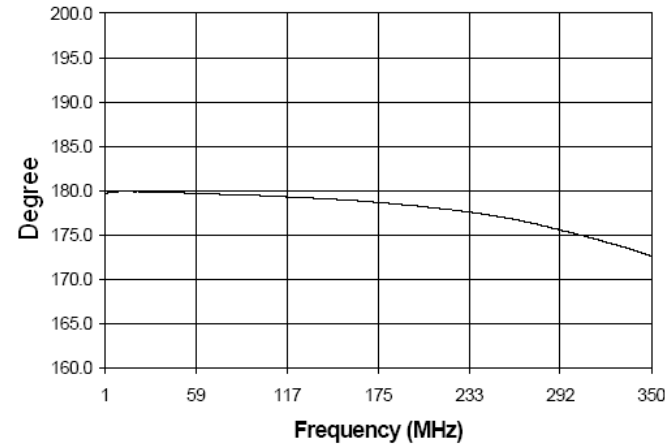
M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

## Typical Performance Curves

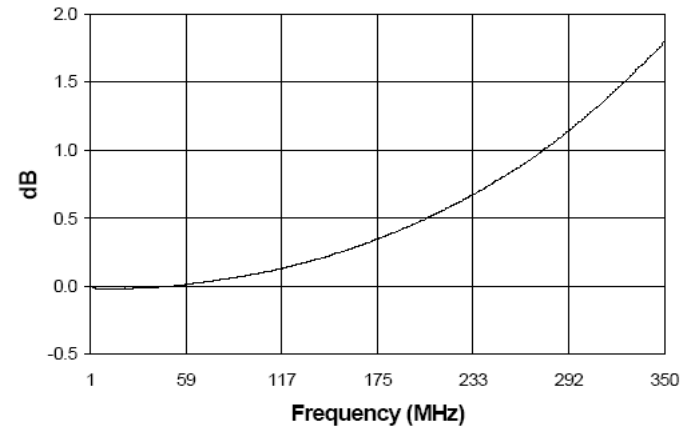
### Insertion Loss



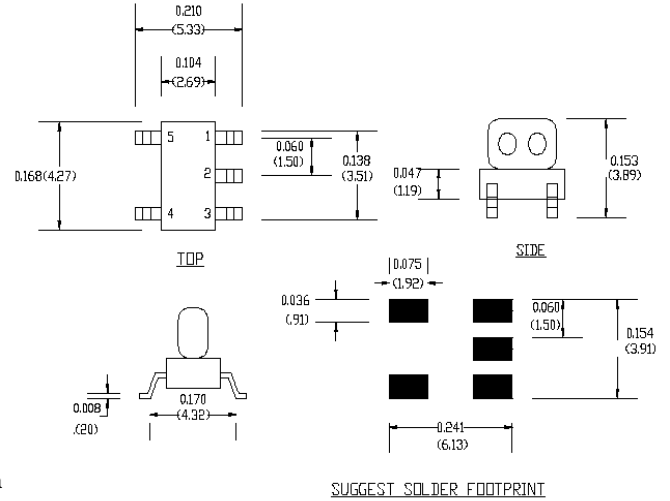
### Phase Unbalance



### Amplitude Unbalance



## SM-138 package



**ADVANCED:** Data Sheets contain information regarding a product M/A-COM 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 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 / 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.

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.