

MABA-011063

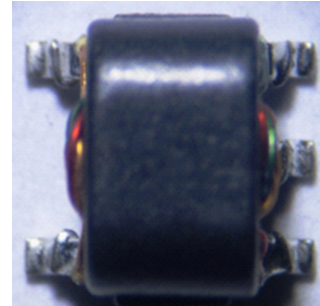


Balun transformer, 2:1 step down flux coupled
5 – 300 MHz

Rev. V1A

Features

- 2:1 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications
- RoHS* compliant and 260°C reflow compatible

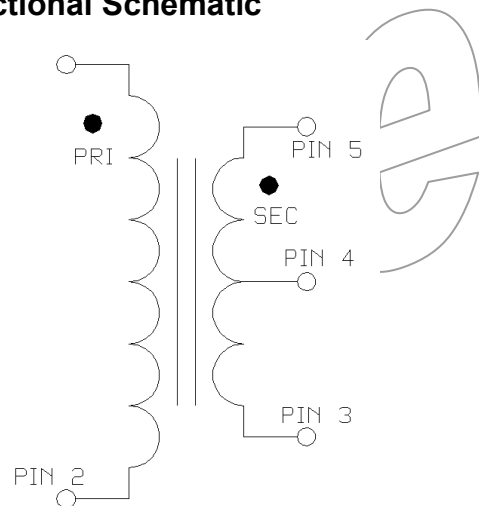


Description

MACOM's MABA-011063 is a 2:1 flux coupled transformer.

This transformer is ideally suited for CATV and Broadband applications.

Functional Schematic



Ordering Information

Part Number	Package
MABA-011063	Tape & Reel
MABA-011063-TB	Customer Test Board

Pin Configuration

Pin No.	Function
1	Primary Dot (input)
2	Primary (ground)
3	Secondary (output1)
4	Center tap (ground)
5	Secondary Dot (output2)

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

1 **ADVANCE:** Data Sheets contain information regarding a product MACOM 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 MACOM 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: +91.80.43537383 • China Tel: +86.21.2407.1588
Visit www.macomtech.com for additional data sheets and product information.

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Balun transformer, 2:1 step down flux coupled
5 – 300 MHz

Rev. V1A

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range		MHz	5		300
Impedance		Ω		75	
Impedance Ratio				2:1	
Insertion Loss 1 (Pin1 - Pin3)	1 - 300 MHz	dB	-	0.8	-
Insertion Loss 2 (Pin1 - Pin5)	1 - 200 MHz	dB	-	0.6	-
	200 - 300 MHz	dB	-	1.5	-
Amplitude Balance	1 - 180 MHz	dB	-	0.01	-
	180 - 300 MHz	dB	-	0.2	-
Phase Balance (ref value 180°)	1 - 150 MHz	$^\circ$	-	0.2	-
	150 - 300 MHz	$^\circ$	-	0.4	-
Input Return Loss (Pin1)	1 - 50 MHz	dB	-	24	-
	50 - 300 MHz	dB	-	10	-

Recommended Maximum Ratings

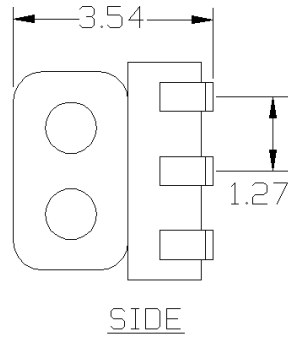
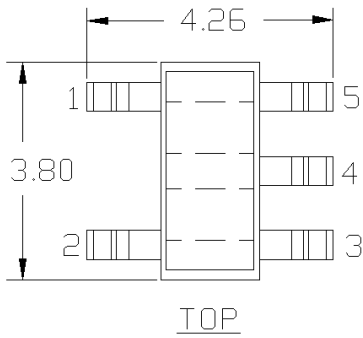
Parameter	Units	Min	Max
Input Power	mW		2000
DC Current	mA		1500
Operating Temperature Range	$^\circ\text{C}$	-40	+125

Full temperature plots available on request

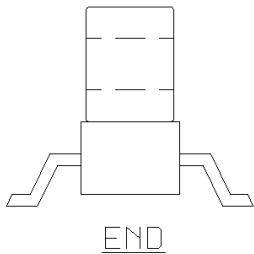
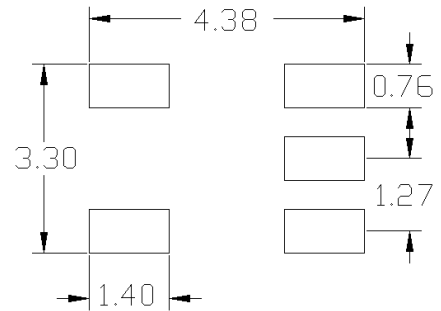
Balun transformer, 2:1 step down flux coupled
5 – 300 MHz

Rev. V1A

Outline Drawing

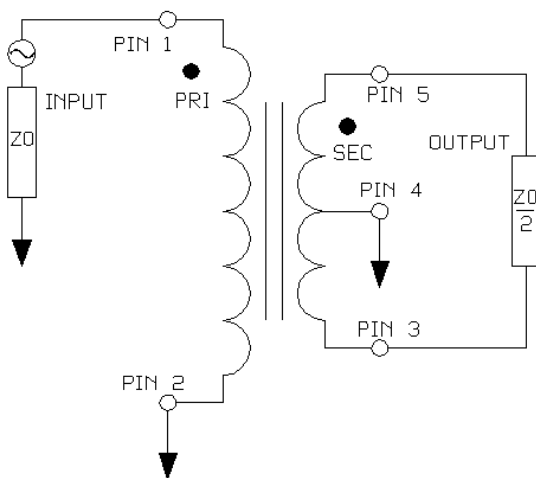


PCB Layout



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Lead plating (CuSn6) Lead finish SAC-305.

Application Schematic



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.40
Bo	mm	4.00
Ko	mm	3.90
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

3 **ADVANCE:** Data Sheets contain information regarding a product MACOM 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 MACOM 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.

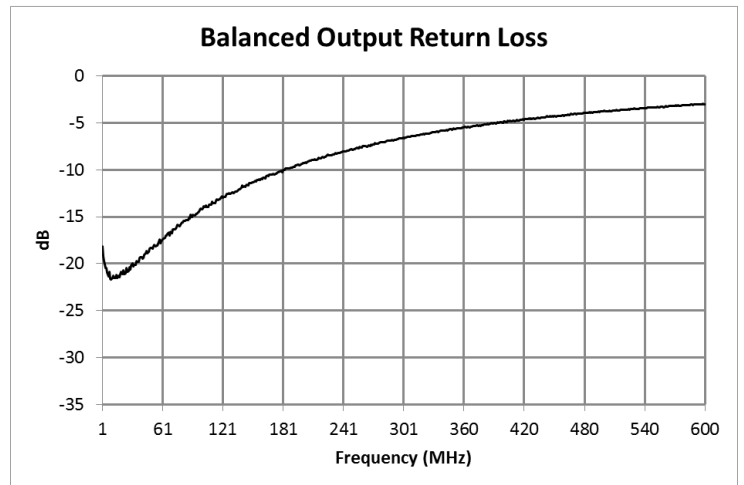
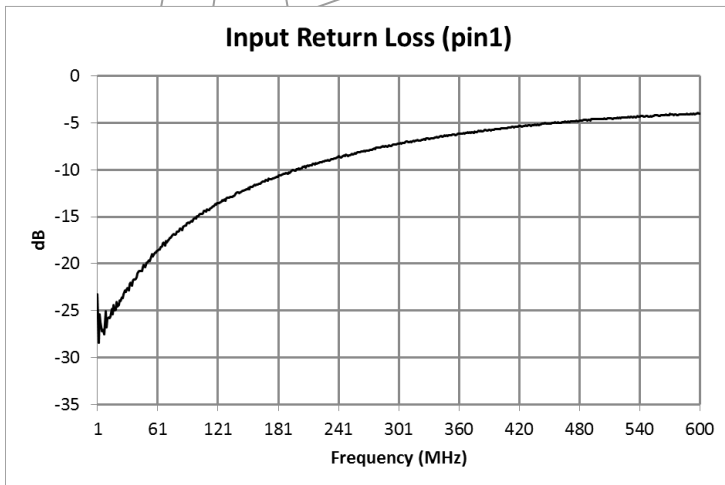
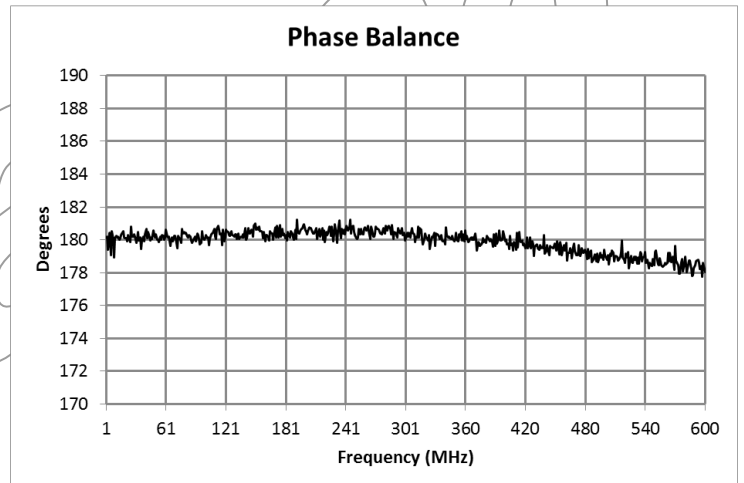
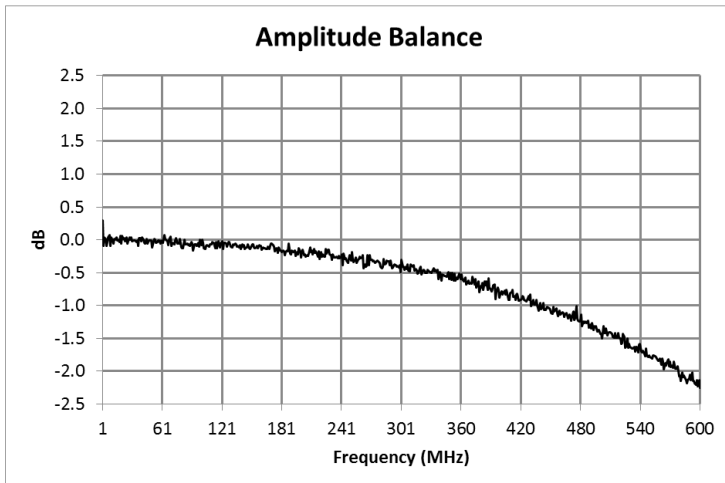
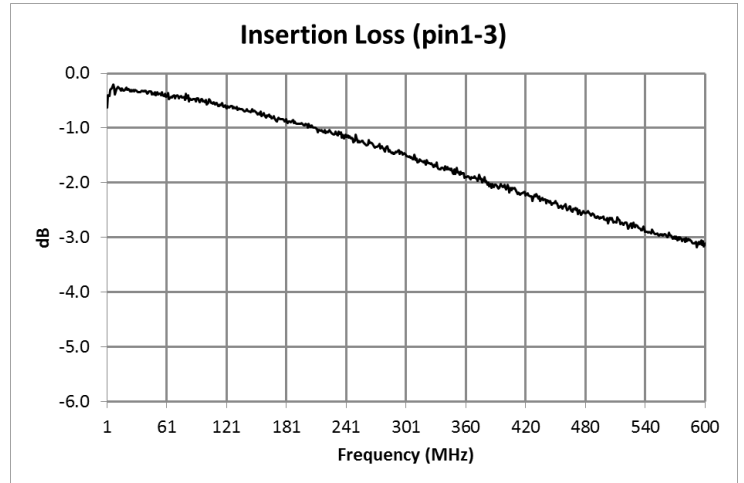
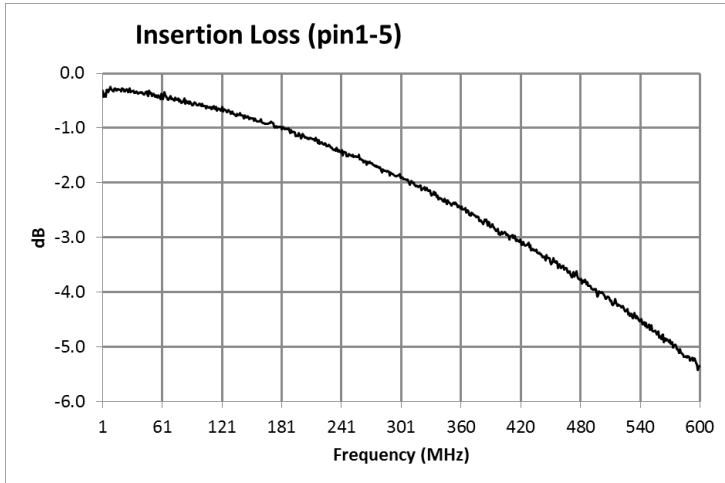
• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
 • **India** Tel: +91.80.43537383 • **China** Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

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

Balun transformer, 2:1 step down flux coupled
5 – 300 MHz

Rev. V1A

Typical Performance Curves



Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$, $P_{in} = 0\text{dBm}$

4

ADVANCE: Data Sheets contain information regarding a product MACOM 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 MACOM 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: +91.80.43537383 • China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.