

1:2 Step Up Flux Coupled Balun Transformer 3 - 300 MHz

Rev. V4

Features

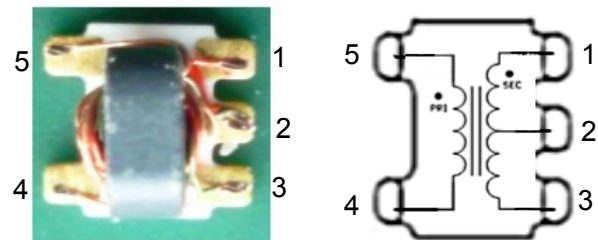
- 1:2 Impedance
- Surface Mount
- Available on Tape & Reel
- 260° Reflow Compatible
- RoHS Compliant and Pb Free

Description

MABA-009250-CT0068 is a RoHS compliant 1:2 RF transformer in a low cost, surface mount package. Typical applications include single to balanced mode conversion and impedance matching.

The MABA-009250-CT0068 is available in a SM-22 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.

Functional Schematic



Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary Dot	4	Primary
2	Centre Tap	5	Primary Dot
3	Secondary		

Electrical Specifications: Freq. = 3 - 300 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 50 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Units	Min.	Typ.	Max.
Impedance Ratio	ratio	—	2:1	—
Insertion Loss	dB	—	0.7	1.6
Amplitude Balance	dB	—	0.4	± 1.2
Phase Balance	$^\circ$	—	—	± 2.0

Ordering Information¹

Part Number	Description
MABA-009250-CT0068	Tape & Reel

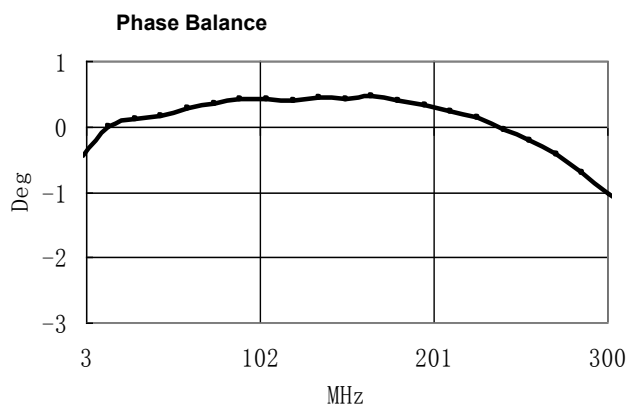
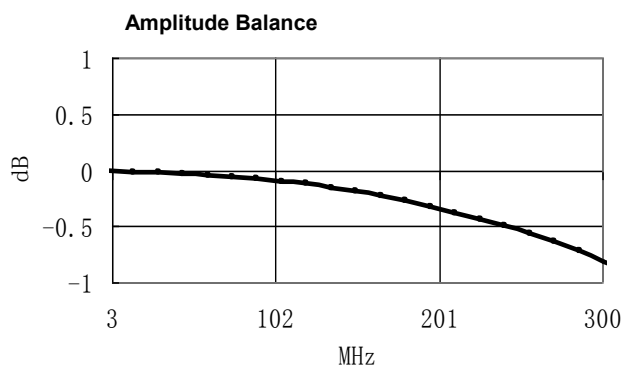
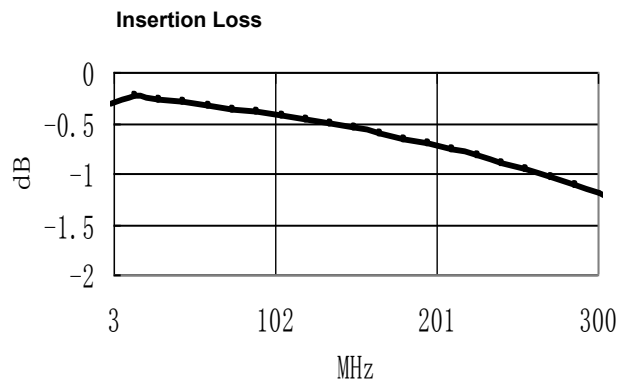
1. Reference Application Note M513 for reel size information.

Absolute Maximum Ratings^{2,3}

Parameter	Absolute Maximum
Input RF Power	250 mW
DC Current	240 mA
Operating Temperature	-40°C to +85°C

2. Exceeding any one or combination of these limits may cause permanent damage to this device.
3. MACOM does not recommend sustained operation near these survivability limits.

Typical Performance Curves⁴

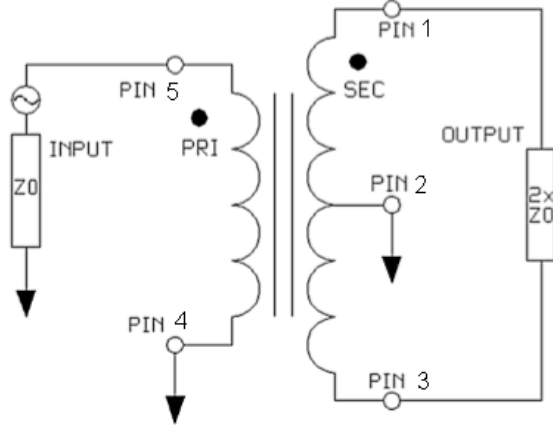


4. Full temperature plots available on request

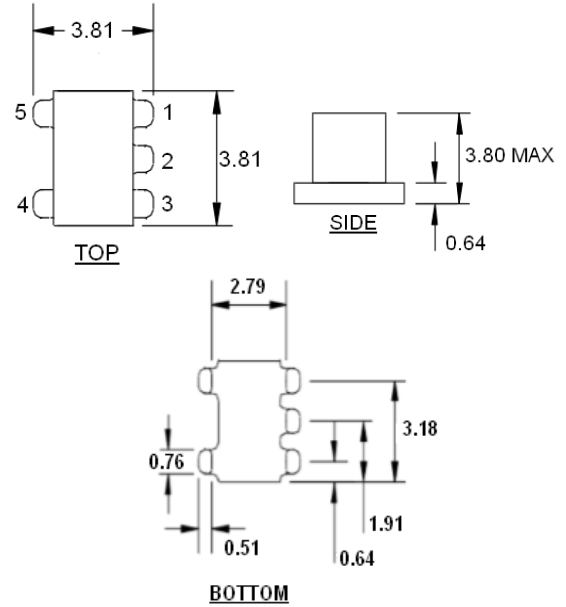
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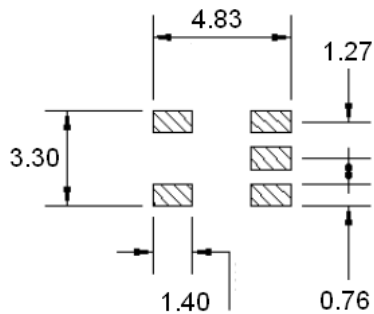
Application Schematic



Outline Drawing^{5,6,7,8}

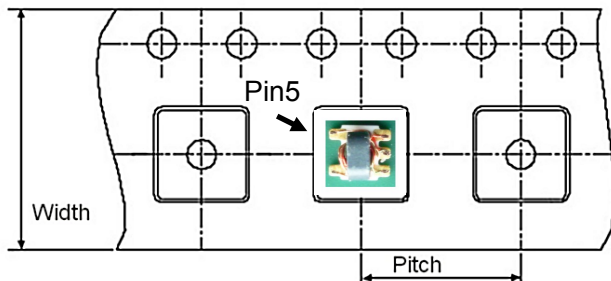


Recommended Footprint



5. Dimensions in mm
6. Tolerance: ± 0.2 mm unless otherwise noted
7. Model number and lot code are printed on the reel
8. Plating finish: ENIG

Carrier Tape Orientation



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	4.00
Bo	mm	4.00
Ko	mm	2.90
Orientation	-	F5
Reference Application Note ANI-019 for orientation		

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