

# MABA-011032

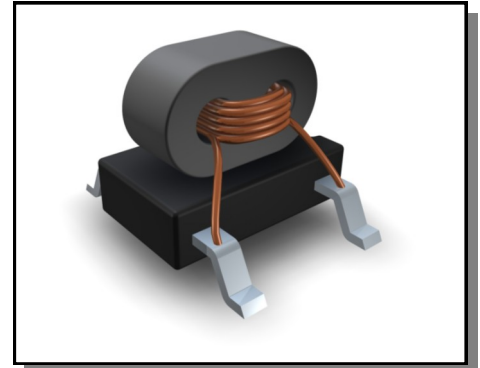


**Transformer, 1:3  
40 MHz - 1000MHz**

Rev. V2

## Features

- 1:3 impedance ratio
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability
- Can be used on 50Ω and 75Ω systems



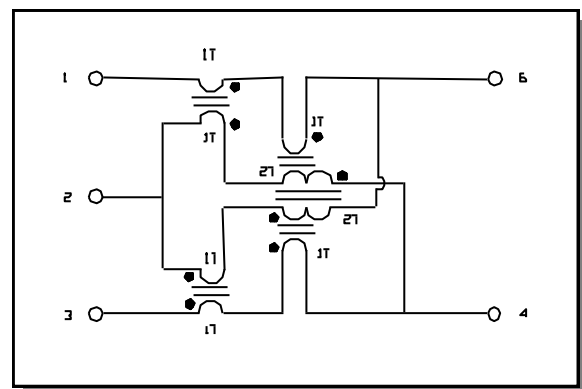
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	40		1000
Impedance		$\Omega$		75	
Impedance Ratio				1:3	
Insertion Loss1 (Pin4 to Pin3)	40 - 500 MHz	dB	-	1.0	1.7
	500 - 1000 MHz	dB	-	1.2	2.5
Insertion Loss2 (Pin4 to Pin1)	40 - 500 MHz	dB	-	1.5	2.0
	500 - 1000 MHz	dB	-	2.0	3.2
Amplitude Unbalance	40 - 500 MHz	dB	-	0.5	$\pm 1.3$
	500 - 1000 MHz	dB	-	0.8	$\pm 1.7$
Phase Balance	40 - 500 MHz	$^\circ$	-	11	$\pm 21$
	500 - 1000 MHz	$^\circ$	-	22	$\pm 32$
Input Return Loss	40 - 500 MHz	dB	13	17	-
	500 - 1000 MHz	dB	11	13	-

## Pin Configuration

Pin No.	Function
1	Output 2
2	Centre tap
3	Output 1
4	Input
6	Ground

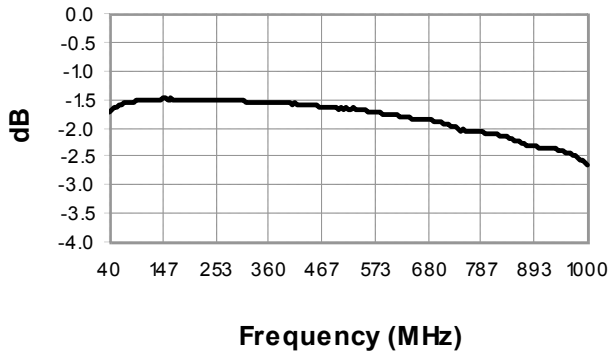
## Schematic



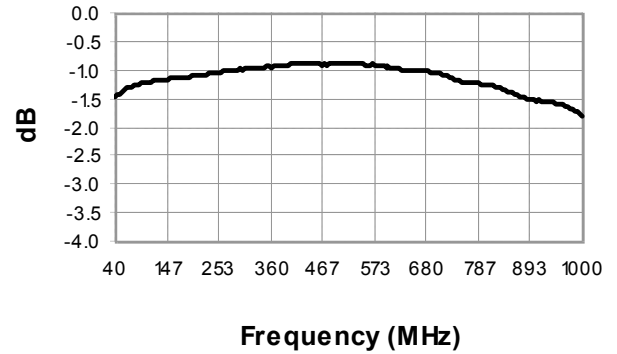
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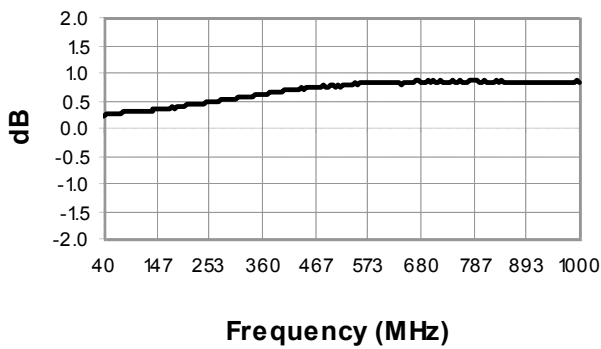
**Insertion Loss: Pin4—Pin3**



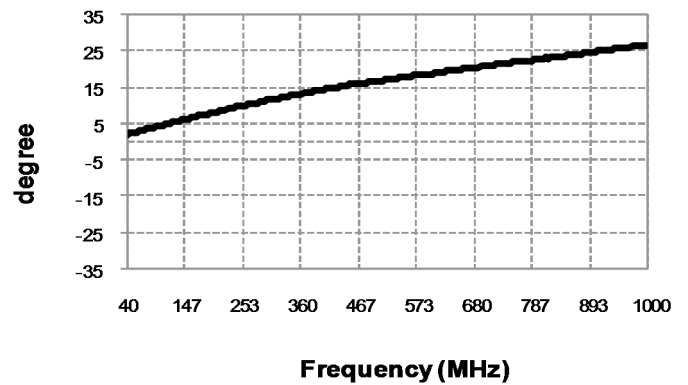
**Insertion Loss: Pin4—Pin1**



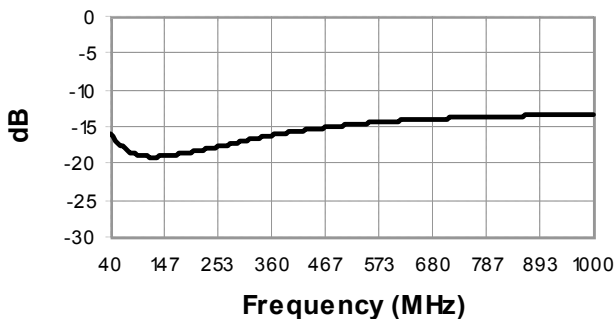
**Amplitude Balance**



**Phase Balance**



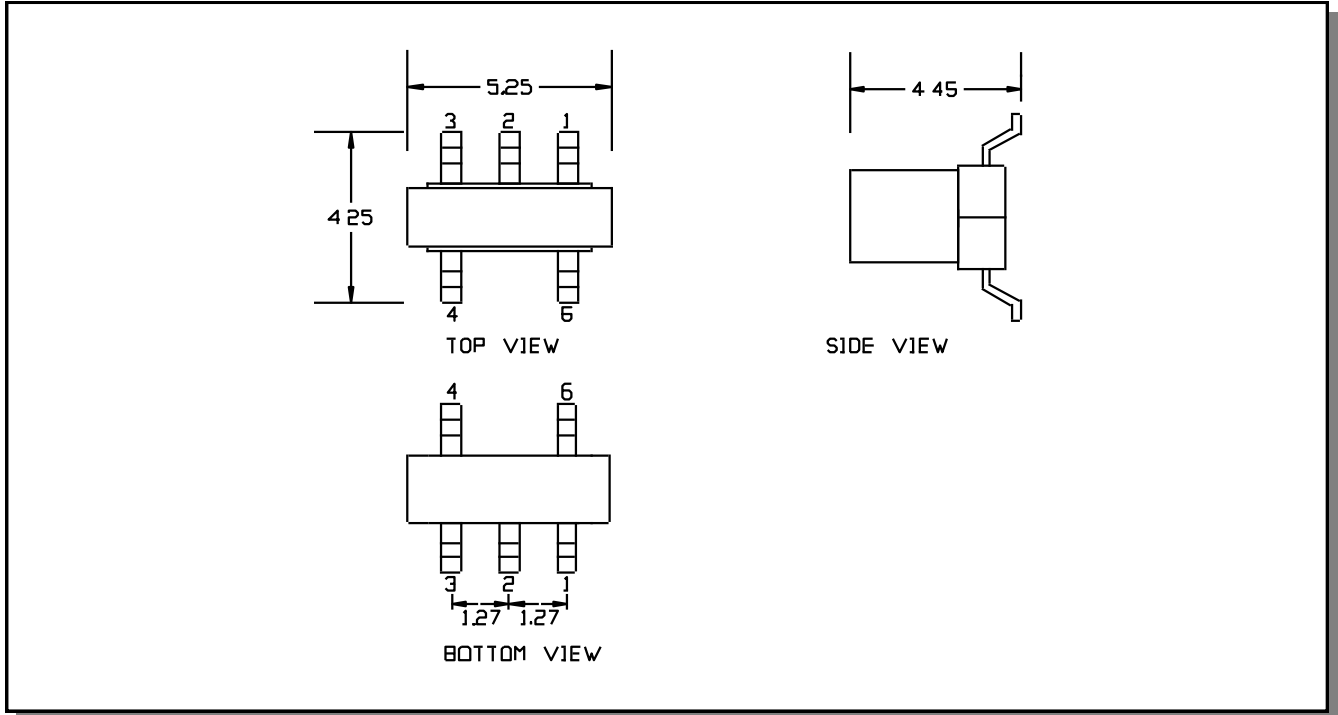
**Return Loss: Input**



**Transformer, 1:3**  
**40 MHz - 1000MHz**

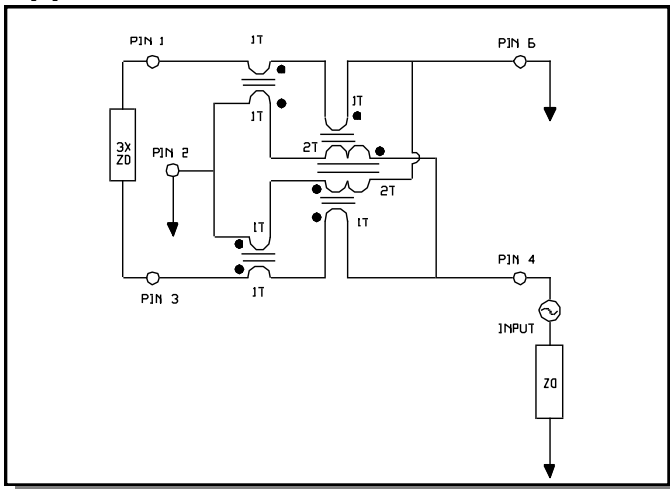
Rev. V2

## Outline Drawing

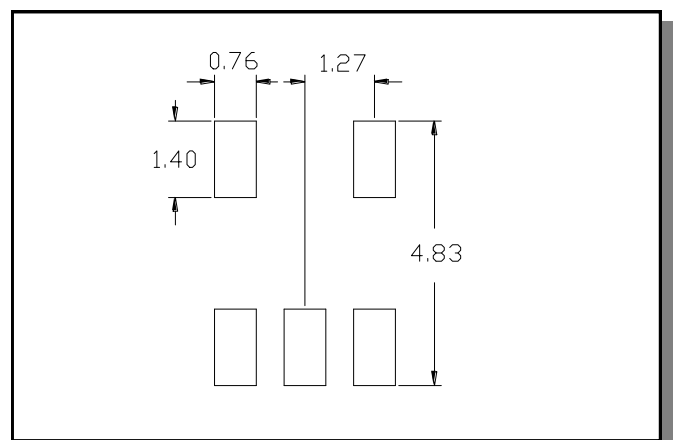


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code are printed on the reel.
4. Finish: CuSn6

## Application Circuit



## Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width	mm	12.00
Pitch	mm	8.00
A <sub>0</sub>	mm	4.50
B <sub>0</sub>	mm	5.40
K <sub>0</sub>	mm	4.70
Orientation	-	F28

## Ordering Information

Part Number	Description
MABA-011032	Tape & Reel

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85

Temperature data available on request

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