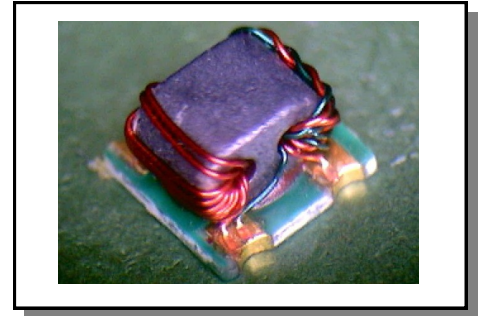


**Transformer, 1:1 Transmission Line**  
**5 MHz - 1200 MHz**

Rev. V2

## Features

- Surface Mount
- 1:1 Impedance, with tertiary winding.
- Excellent amplitude and phase balance
- 260°C Reflow Compatible
- RoHS\* Compliant



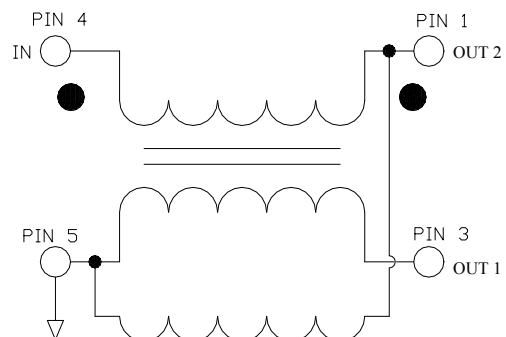
**Electrical Specifications:**  $Z_0 = 50\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	5		1200
Impedance		$\Omega$		50	
Impedance Ratio				1:1	
Insertion Loss	5 - 1000 MHz	dB	-	0.6	1.0
	1000 - 1200 MHz	dB	-	0.8	1.1
Amplitude Balance (Reference Level 0dB)	5 - 50 MHz	dB	-0.8	0.35	0.8
	50 - 1200 MHz	dB	-0.5	0.1	0.5
Phase Balance (Reference Level 180°)	5 - 50 MHz	$^\circ$	-13.0	3.0	13.0
	50 - 1000 MHz	$^\circ$	-4.5	2.0	4.5
	1000 - 1000 MHz	$^\circ$	-10.0	3.0	10.0
Input Return Loss	5 - 50 MHz	dB	18	24	-
	50 - 1200 MHz	dB	10	13	-

## Pin Configuration

Pin No.	Function
1	Secondary Dot (output 2)
2	Not Connected (ground)
3	Secondary (output 1)
4	Primary Dot (input)
5	Primary (ground)

## Schematic

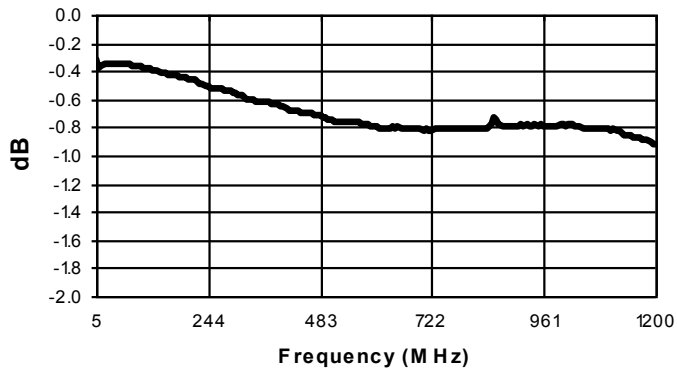


**Transformer, 1:1 Transmission Line**  
**5 MHz - 1200 MHz**

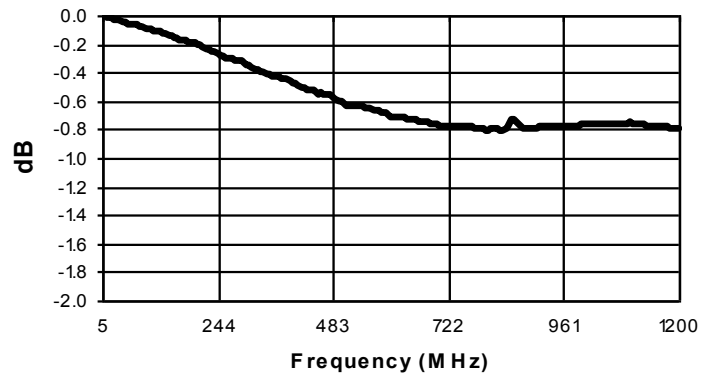
Rev. V2

Electrical Specifications:  $Z_0 = 50\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

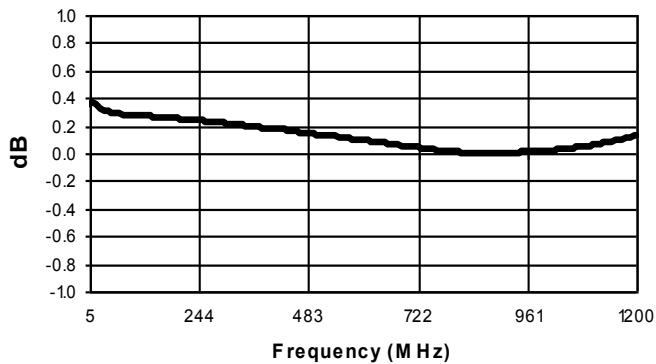
**Insertion Loss 1 (through pin 4 to pin 3)**



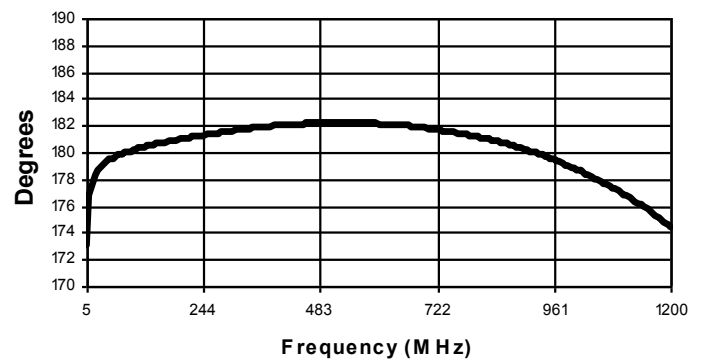
**Insertion Loss 2 (coupled pin 4 to pin 1)**



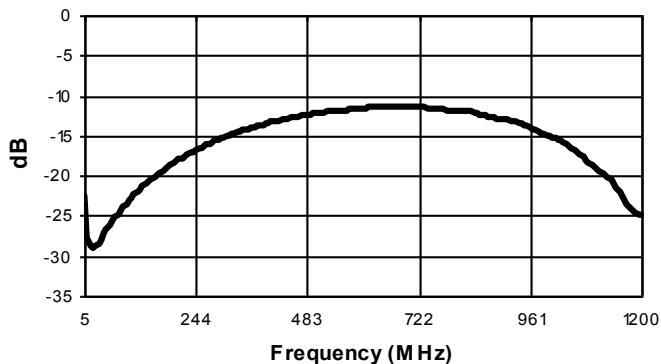
**Amplitude Balance**



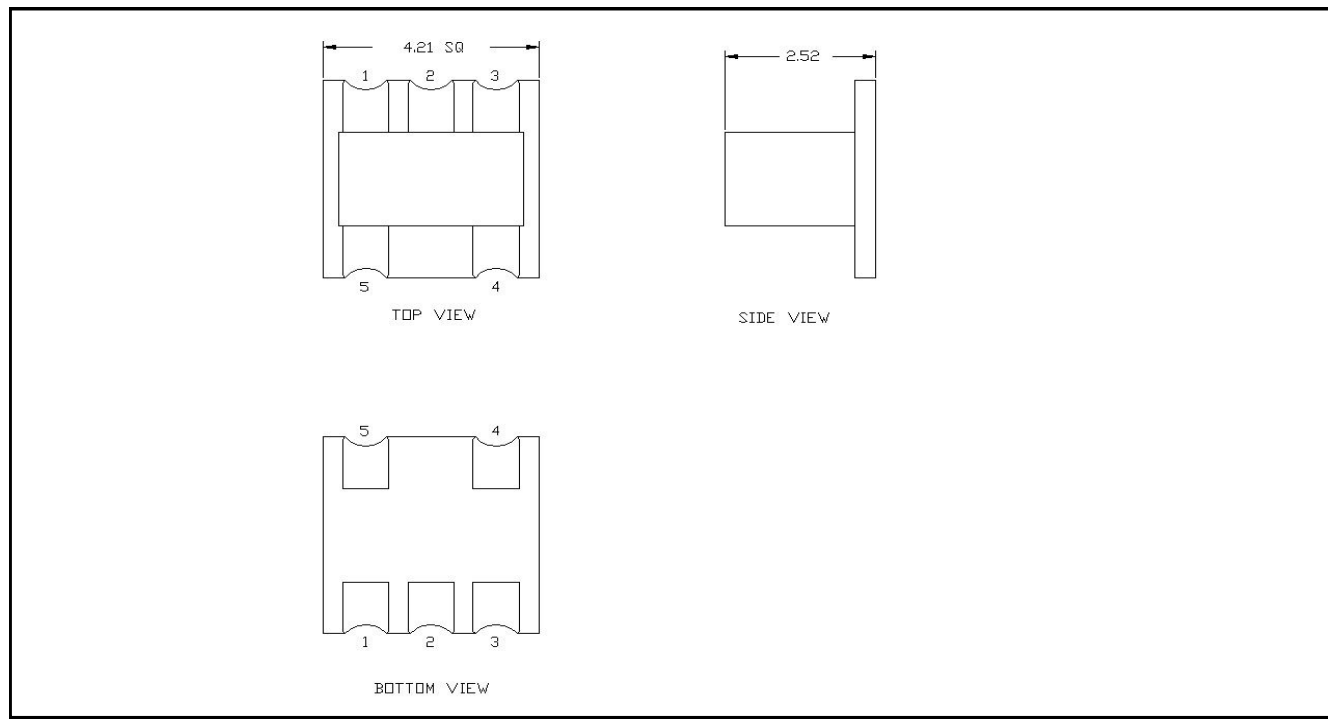
**Phase Balance**



**Return Loss: Input (pin4)**

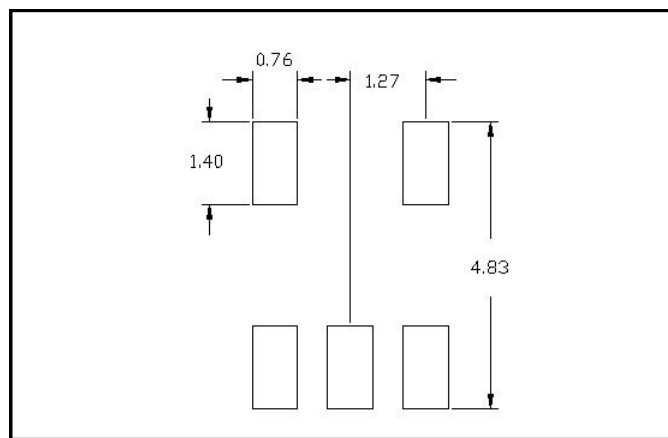


## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG on both sides

## 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
Ao	mm	4.50
Bo	mm	4.50
Ko	mm	2.73
Orientation	-	F31
Reference Application Note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABACT0060	Tape & Reel

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		240
Operating Temperature Range	°C	-40	+85

Temperature data available on request

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