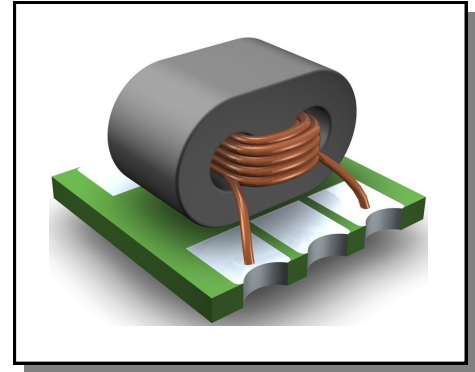


**1:1 flux coupled Transformer**  
**3 MHz - 200 MHz**

Rev. V3

## Features

- ◆ 1:1 flux coupled transformer
- ◆ Surface mount
- ◆ Centre Tap on Secondary
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant
- ◆ Suitable for all CATV, Broadband applications.



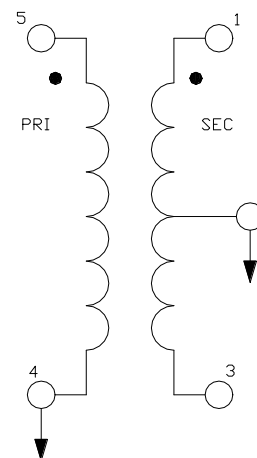
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Insertion Loss (pin 5-1)	3 - 5 MHz	dB	-	1.0	2.6
	5-200 MHz	dB	-	0.5	0.9
Insertion Loss (pin 5-3)	3 - 10 MHz	dB	-	1.0	2.6
	10-200 MHz	dB	-	0.4	0.75
Amplitude Balance	3 - 200 MHz	dB	-	0.1	$\pm 0.3$
Phase Balance	3 - 200 MHz	$^\circ$	-	0.3	$\pm 3.0$
Input Return Loss	3 - 5 MHz	dB	5	13	-
	5 - 120 MHz	dB	19	27	-
	120 - 200 MHz	dB	15	21	-

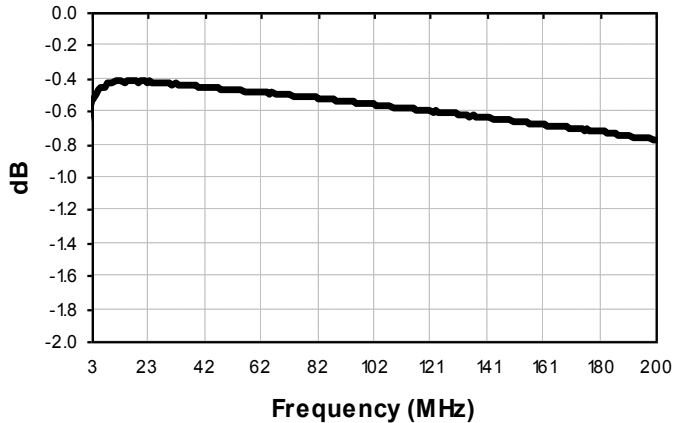
## Pin Configuration

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

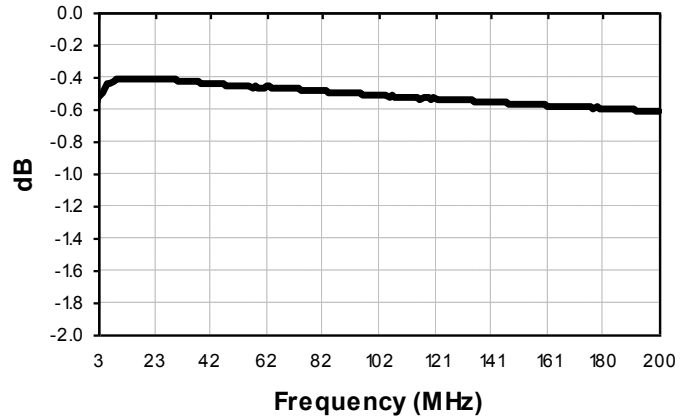
## Schematic



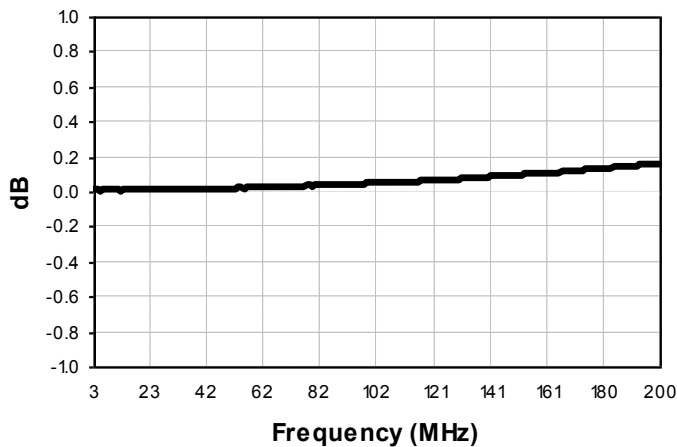
Insertion Loss: (pin5 - pin1)



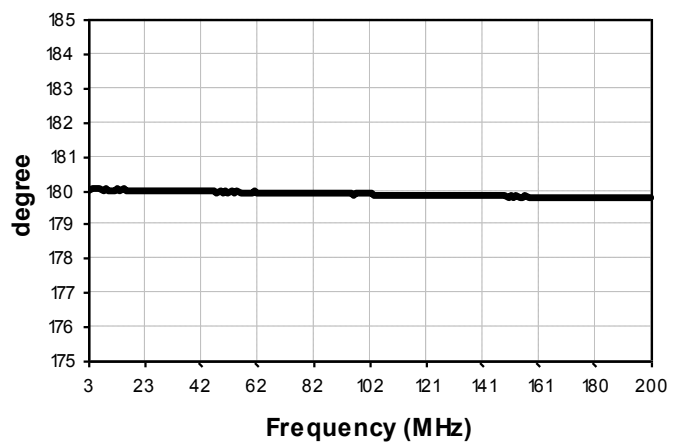
Insertion Loss: (pin5 - pin3)



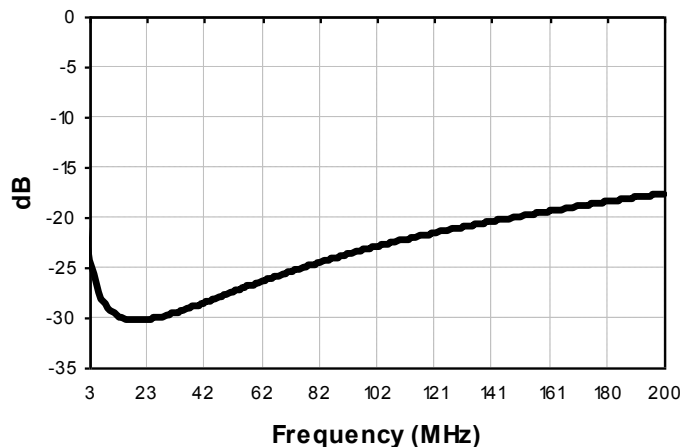
Amplitude Balance



Phase Balance

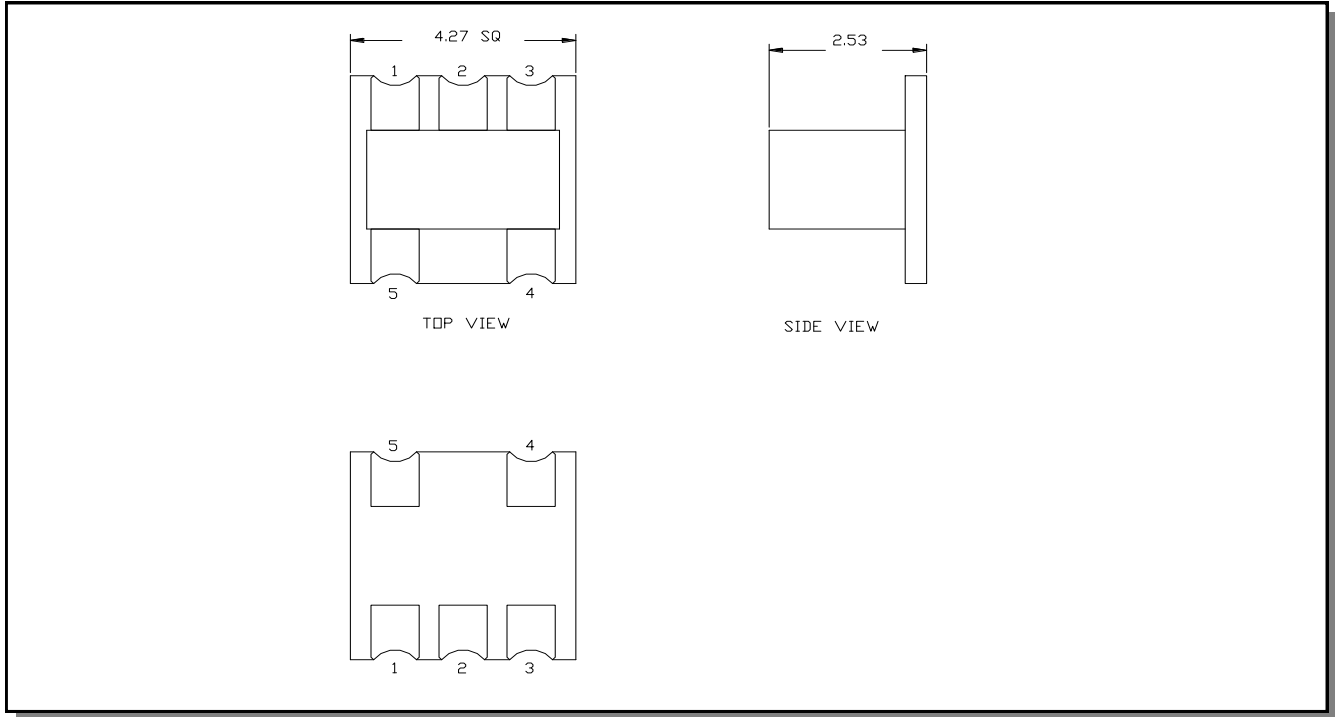


Return Loss: Input (pin5)



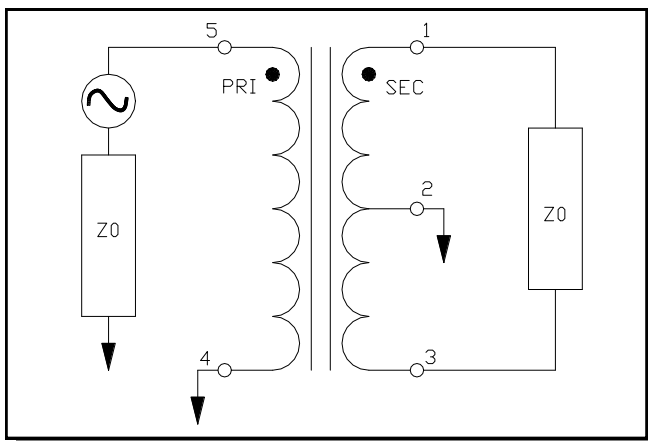
Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

## Outline Drawing

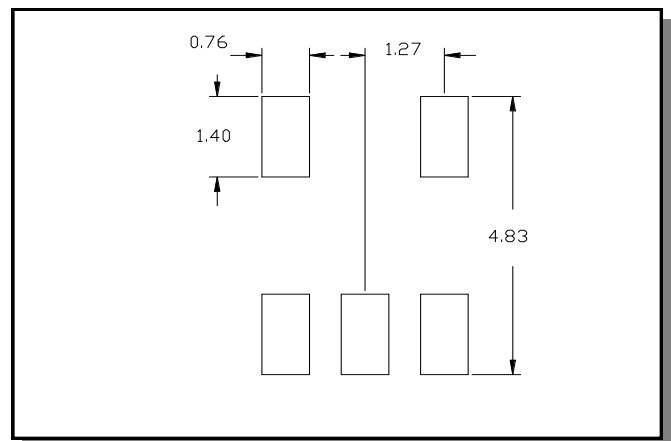


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: Electroless nickel immersion Gold 3 - 5 microns nickel 0.05 - 0.15 microns gold.

## Application Circuit



## Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.0
Pitch (P <sub>1</sub> )	mm	8.0
A <sub>0</sub>	mm	4.50
B <sub>0</sub>	mm	4.50
K <sub>0</sub>	mm	2.73
Orientation	-	F5
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABACT0071	Tape & Reel
MABA-008350-CT71TB	Customer Evaluation Board

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		240
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+100

Temperature data available on request

## ECO History

Rev	Date	Description	ECO
V1	26 Jul 2005	New release	20047786
V2	03 Nov 2010	Change start Frequency from 0.3 to 3 MHz	20101811
V3	09/12/2011	Update part orientation.	CO-002862