

# MABA-010400-CT18A0

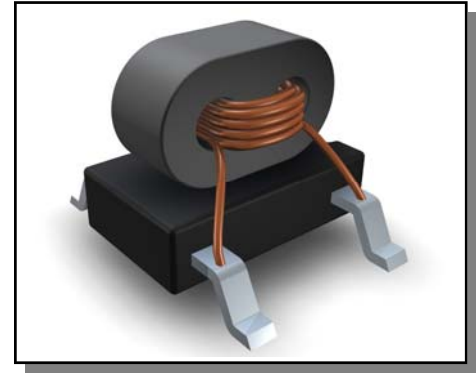


Transformer, 1:1  
40 MHz - 200 MHz

Rev. V1

## Features

- ◆ 1:1 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
- ◆ Suitable for all CATV, Broadband and FTTx applications.



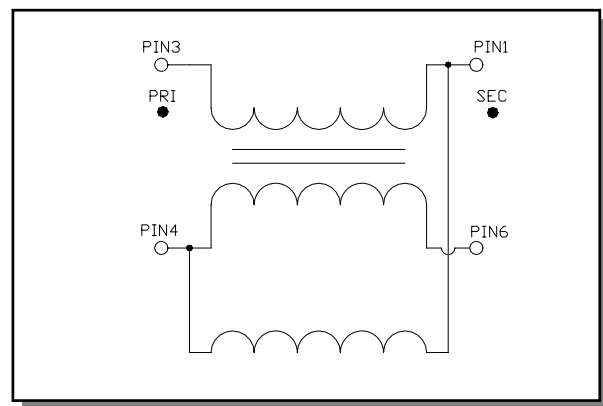
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	40		200
Impedance		$\Omega$		75	
Impedance Ratio				1:1	
Insertion Loss 1 Pin3 - Pin1	40 - 120 MHz	dB	-	0.4	.5
	120 - 200 MHz	dB	-	0.5	.6
Insertion Loss 2 Pin3 - Pin6	40 - 200 MHz	dB	-	0.4	.5
Amplitude Balance	40 - 200 MHz	dB	-	0.1	$\pm 0.2$
Phase Balance	40 - 200 MHz	Degree	-	0.5	$\pm 2.0$
Input Return Loss Pin3	40 - 200 MHz	dB	20	23	-

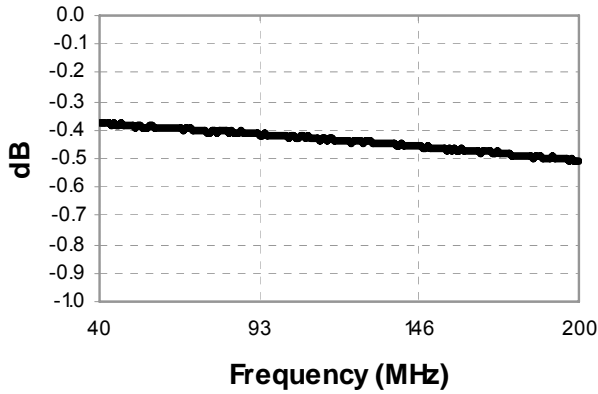
## Pin Configuration

Pin No.	Function
1	Secondary Dot (Output 1)
2	Not Connected (Ground)
3	Primary Dot (Input)
4	Primary (Ground)
6	Secondary (Output 2)

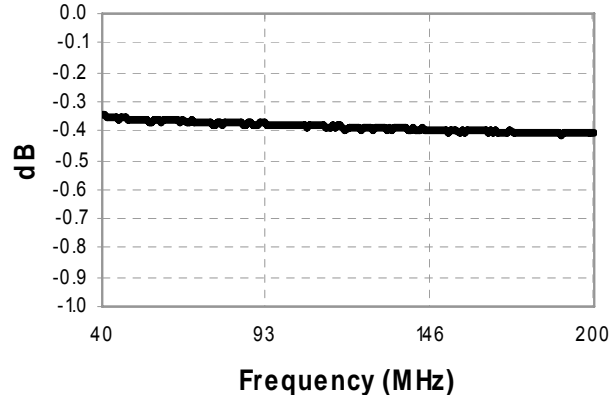
## Schematic



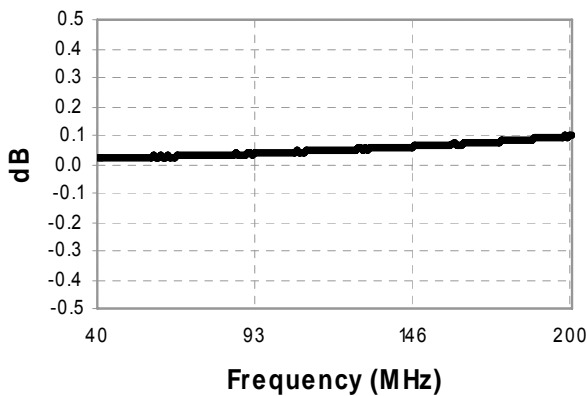
### Insertion Loss 1: (Pin3 - Pin1)



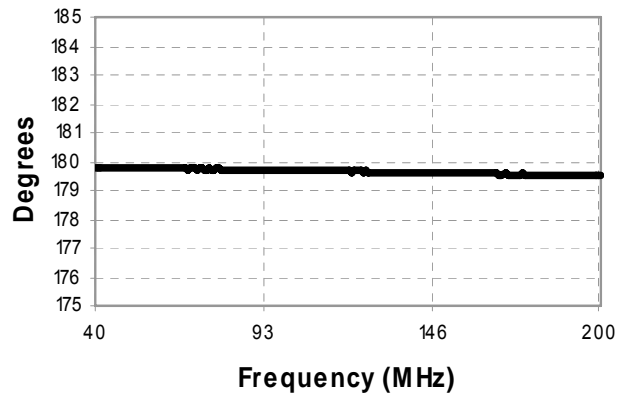
### Insertion Loss 2: (Pin3 - Pin6)



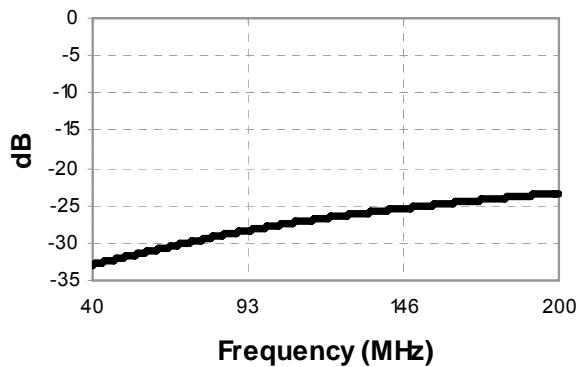
### Amplitude Balance



### Phase Balance

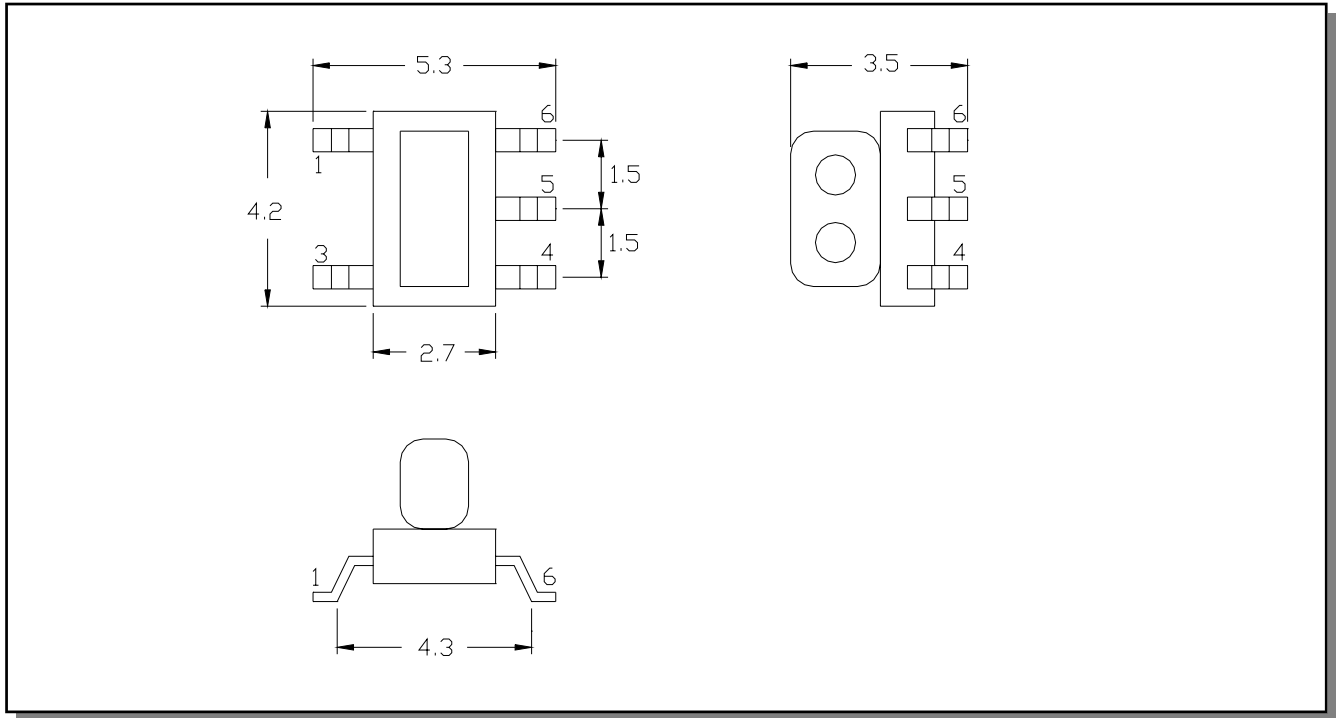


### Return Loss: Input (Pin3)



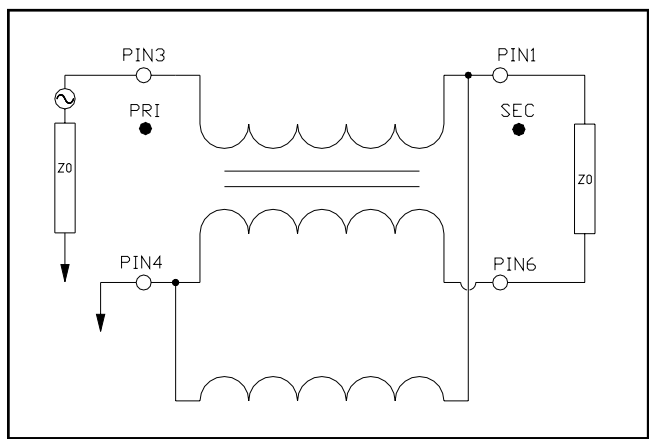
Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

## Outline Drawing

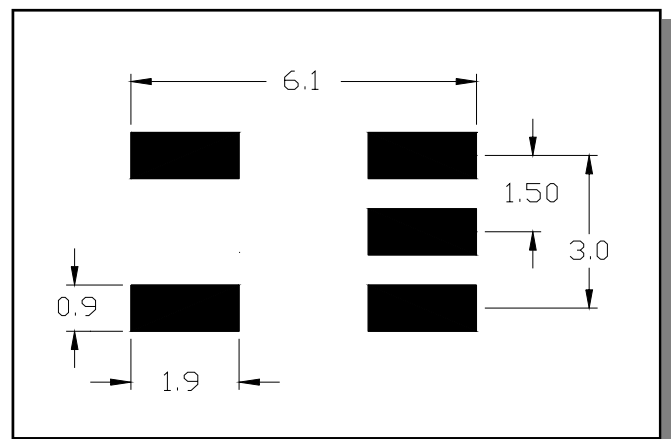


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Pin Material: CuSn6

## 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	5.6
B <sub>0</sub>	mm	4.5
K <sub>0</sub>	mm	4.0
Orientation	-	F26
Reference Application Note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA -010400-CT18A0	Tape & Reel
MABA -010400-CT18TB	Customer Evaluation Board

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85
Storage Temperature Range	°C	-55	+125

Temperature data available on request

## ECO History

Rev	Date	Description	ECO
V1	28 July 2010	Released	20100951