

Transformer, 1:1  
45 MHz - 1200 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.



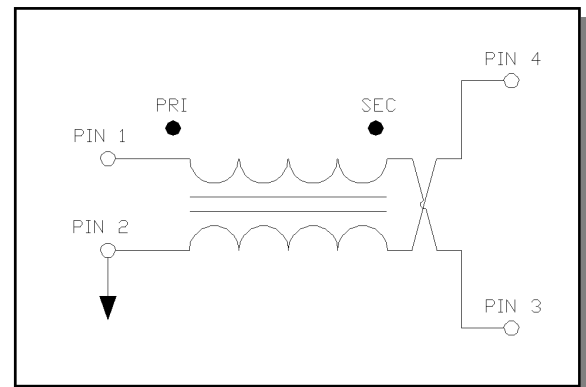
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	45		1200
Impedance		$\Omega$		75	
Impedance Ratio				1:1	
Insertion Loss (pin1-pin4)	45 - 100 MHz	dB	-	0.50	0.6
	100 - 600 MHz	dB	-	0.55	0.8
	600 - 1200 MHz	dB	-	0.60	1.1
Insertion Loss (pin1-pin3)	45 - 100 MHz	dB	-	-0.10	0.0
	100 - 600 MHz	dB	-	0.20	0.7
	600 - 1200 MHz	dB	-	0.70	1.3
Amplitude Balance	45 - 600 MHz	dB	-	0.5	$\pm 0.8$
	600 - 1200 MHz	dB	-	0.2	$\pm 0.8$
Phase Balance (ref 180 deg)	45 - 600 MHz	degree	-	3	$\pm 6$
	600 - 1200 MHz	degree	-	4	$\pm 8$
Input Return Loss (pin1)	45 - 150 MHz	dB	20	33	-
	150 - 600 MHz	dB	17	23	-
	600 - 1200 MHz	dB	12	15	-

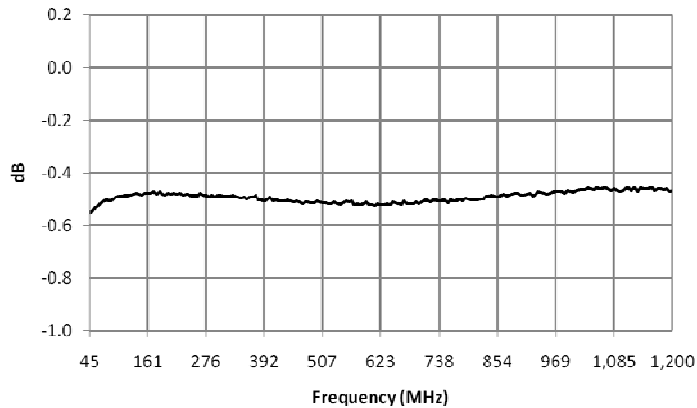
## Pin Configuration

Pin No.	Function
1	Primary Dot
2	Primary
3	Secondary Dot
4	Secondary

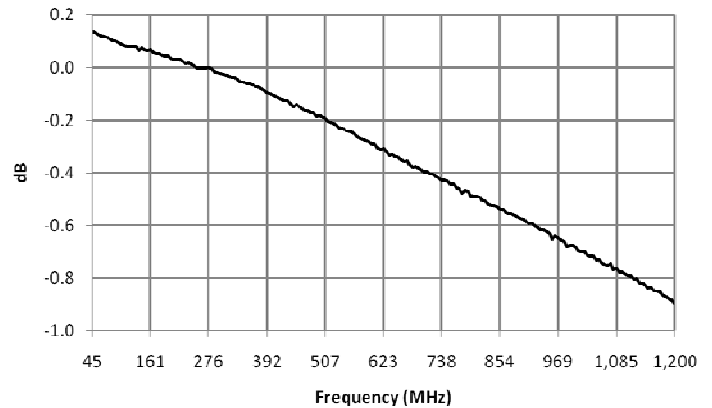
## Schematic



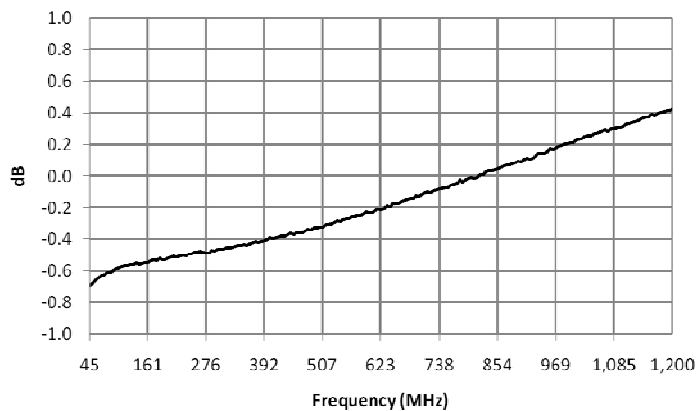
MABA-010726-CT1007 insertion\_loss\_pin\_1\_4



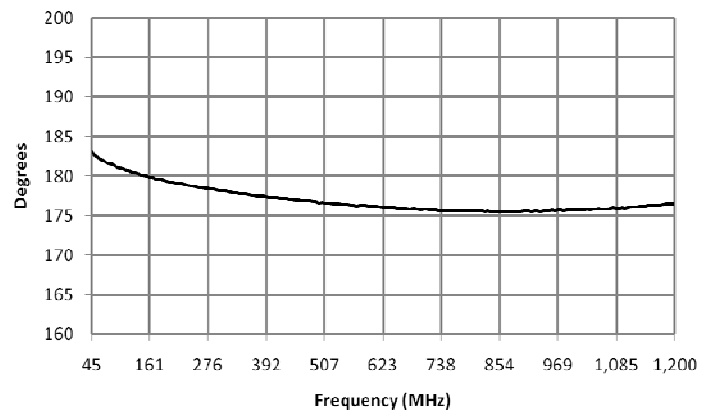
MABA-010726-CT1007 insertion\_loss\_pin\_1\_3



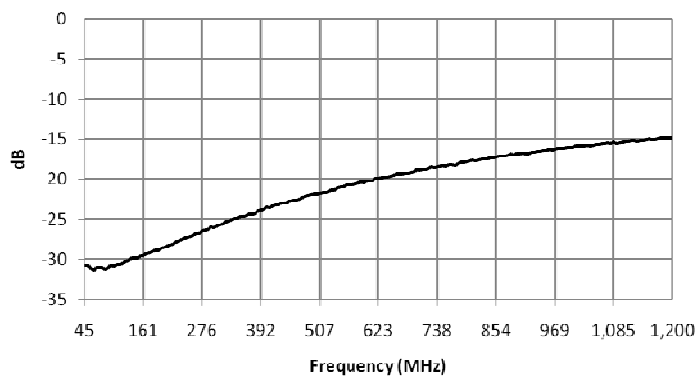
MABA-010726-CT1007 amplitude\_balance



MABA-010726-CT1007 phase\_balance



MABA-010726-CT1007  
input\_return\_loss\_pin\_1

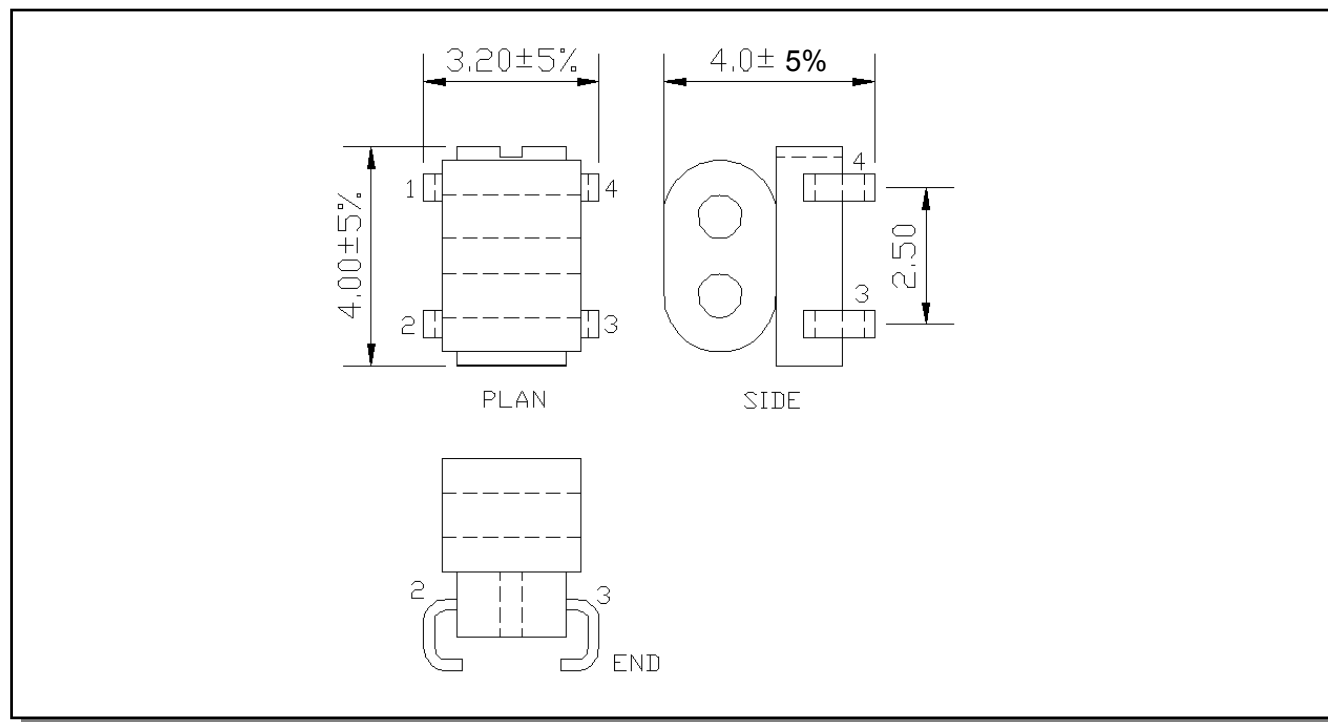


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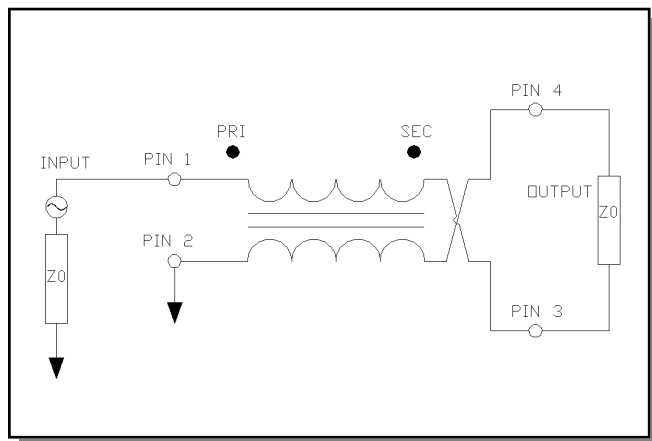
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## Outline Drawing

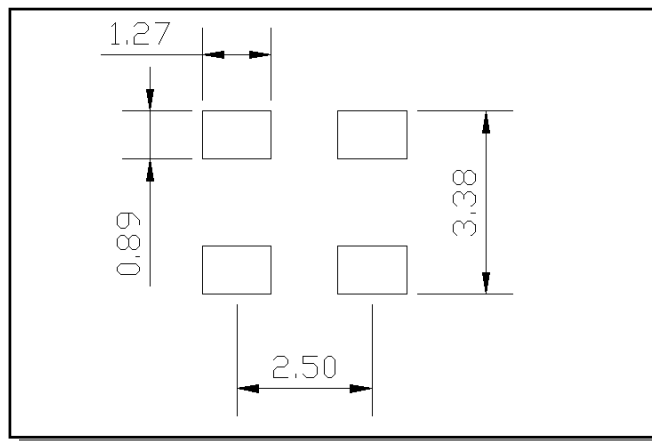


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2\text{mm}$  unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: CuSn6

## Application Circuit



## Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	3.5
B <sub>0</sub>	mm	4.3
K <sub>0</sub>	mm	4.2
Orientation	-	F48
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-010726-CT1007	Tape & Reel
MABA-010726-CT10TB	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