# Transformer, 1:1 Transmission Line 45 - 1200 MHz

#### Features

- 1:1 Impedance Ratio
- Surface Mount
- Available on tape and reel
- 260°C Reflow compatible

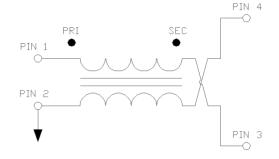
**Ordering Information** 

Part Number

MABA-011014

MABA-011014-TB

- RoHS Compliant and Pb free
- Excellent Temperature Stability
- Can be used on 50  $\Omega$  and 75  $\Omega$  systems
- Suitable for all CATV, Broadband and FTTx applications.



# Pin Configuration

**Schematic** 

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

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

Description

Tape & Reel

**Evaluation Board** 

Parameter	Conditions	Units	Min.	Тур.	Max.
Frequency Range	_	— MHz 45		_	1200
Impedance	—	Ω —		75	_
Impedance Ratio	—	Ratio		1:1	_
Insertion Loss (Pin1 - Pin4)	45 - 100 MHz 100 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	0.9 0.9 1.0 1.0	1.1 1.2 1.3 1.4
Insertion Loss (Pin1 - Pin3)	45 - 100 MHz 100 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	-0.2 -0.1 0.2 0.35	0.1 0.2 0.5 0.7
Amplitude Balance	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	_	1.1 0.9 0.9	±1.4 ±1.5 ±1.5
Phase Balance	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	0	_	2 4 4	±6 ±10 ±10
Input Return Loss (Pin1)	45 - 600 MHz 600 - 1000 MHz 1000 - 1200 MHz	dB	20 20 20	30 31 31	_

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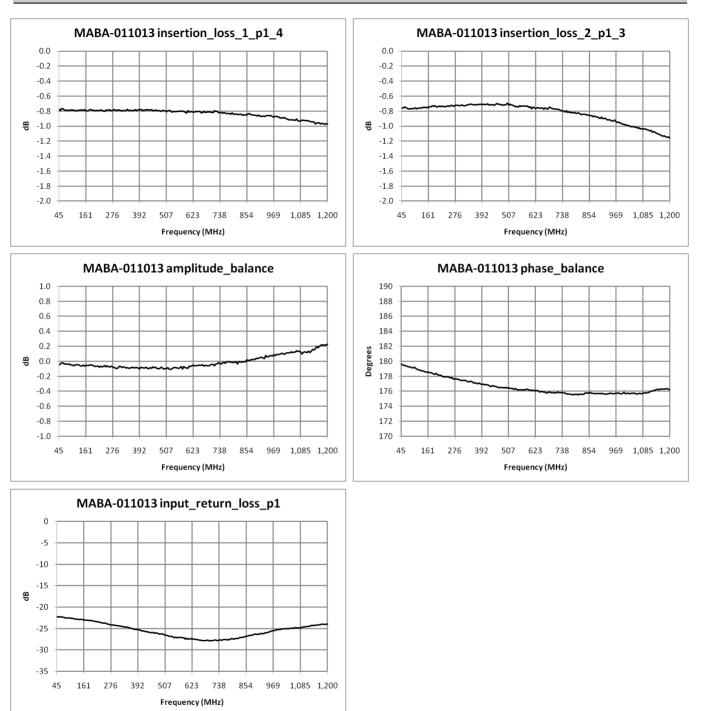
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Electrical Specifications:  $Z_0 = 75\Omega$ ,  $T_A = 25^{\circ}C$ ,  $P_{in} = 0dBm$ 

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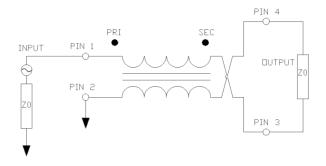
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#### **Recommended Maximum Ratings**

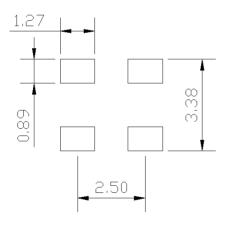
Parameter	Units		
Input Power	2 W		
DC Current	200 mA		
Operating Temperature	-40°C to +100°C		

Temperature data available on request

## **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	3.3		
B <sub>0</sub>	mm	4.3		
K <sub>0</sub>	mm	2.6		
Orientation	-	F51		
Reference Application note ANI-019 for orientation				

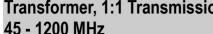
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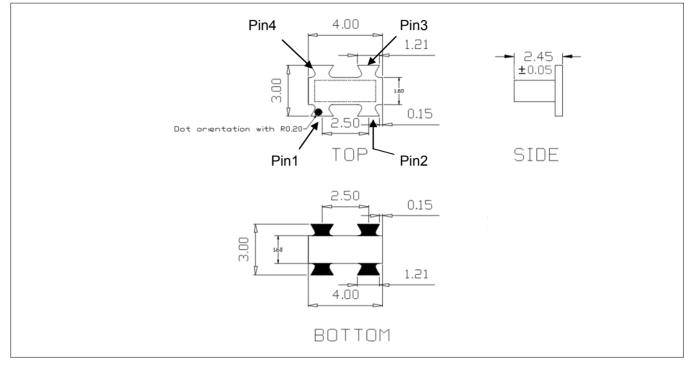
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**Outline Drawing** 



- 1. Dimensions in mm.
- Tolerance: ±0.2mm unless otherwise noted. 2.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: 96.5 % tin, 3% silver, and 0.5% copper



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