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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## E-Series RF 1:1 Transmission Line Transformer 4.5 - 3000 MHz

Rev. V5

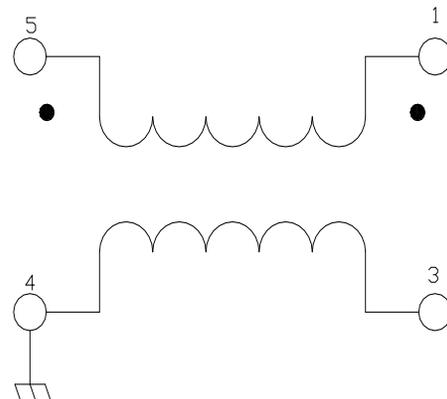
### Features

- Surface mount
- Wide frequency range
- 1:1 impedance
- Lead Free
- RoHS\* Compliant
- 260°C reflow compatible
- Available on Tape and Reel

### Description

The MABA-007159 is a RoHS compliant 1:1 RF transmission line transformer in a low cost, surface mount package. The windings of the MABA-007159 are welded to the package substrate for improved reliability and to eliminate lead content. Ideally suited for high volume cellular and wireless application. Parts are packaged in tape & reel.

### Schematic



### Pin Configuration

Pin No.	Function
1	Secondary Dot
2	Not Connected
3	Secondary
4	Primary
5	Primary Dot

### Electrical Specifications: RF Freq. = 4.5 - 3000 MHz, $T_A = 25^\circ\text{C}$ , $Z_0 = 50 \Omega$

Parameter	Test Frequency	Units	Min.	Typ.	Max.
Insertion Loss	4.5 - 1000	dB	—	0.32	1.0
	1000 - 2000			—	2.0
	2000 - 3000			—	3.5
Amplitude Unbalance	4.5 - 1000	dB	—	—	1.0
Phase Unbalance	4.5 - 1000	Degrees	—	—	20

### Ordering Information

Part Number	Package
MABA-007159-000000	2000 piece reel

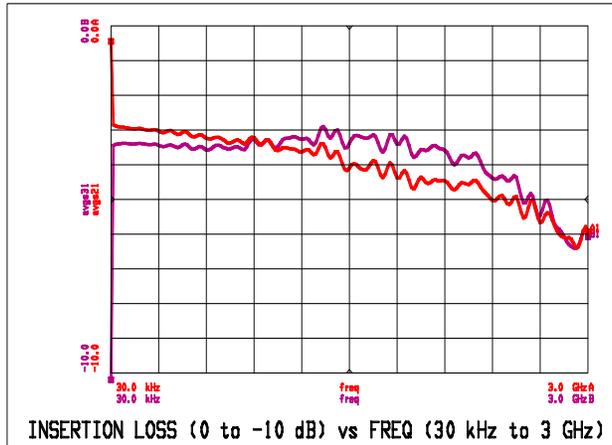
### Recommended Maximum Ratings<sup>1,2</sup>

Parameter	Absolute Maximum
DC Power	250 mW
DC Current	30 mA
Operating Temperature	-55°C to +85°C
Storage Temperature	-55°C to +125°C

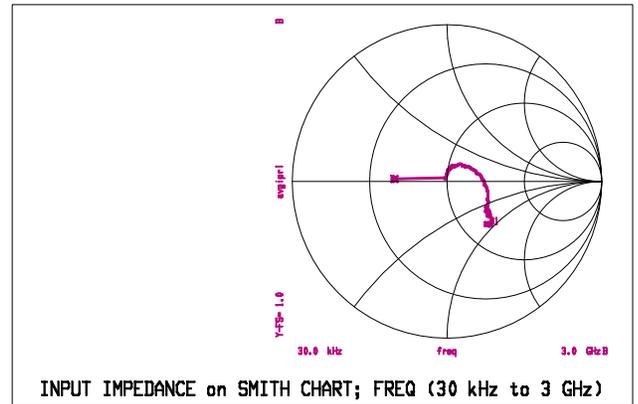
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

## Typical Performance Curves

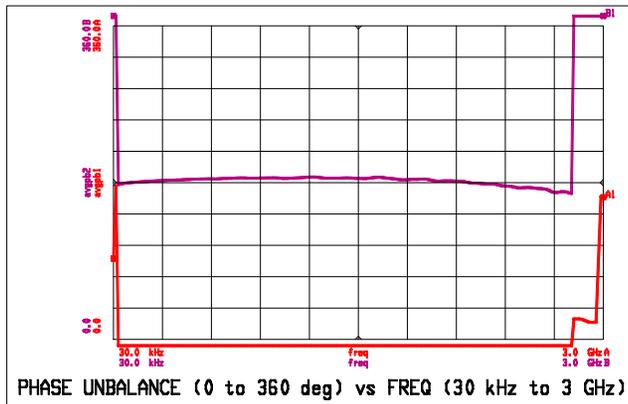
### Insertion Loss



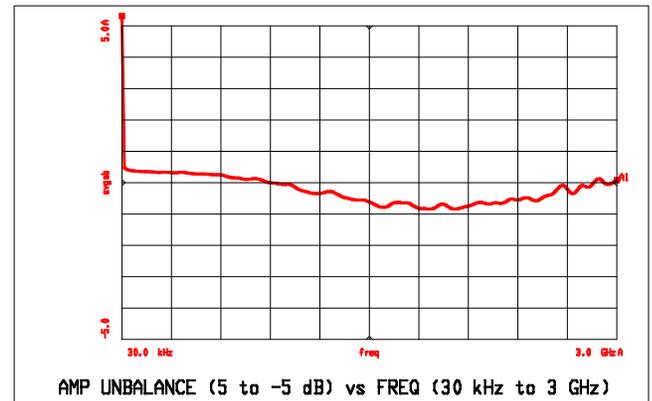
### Input Impedance



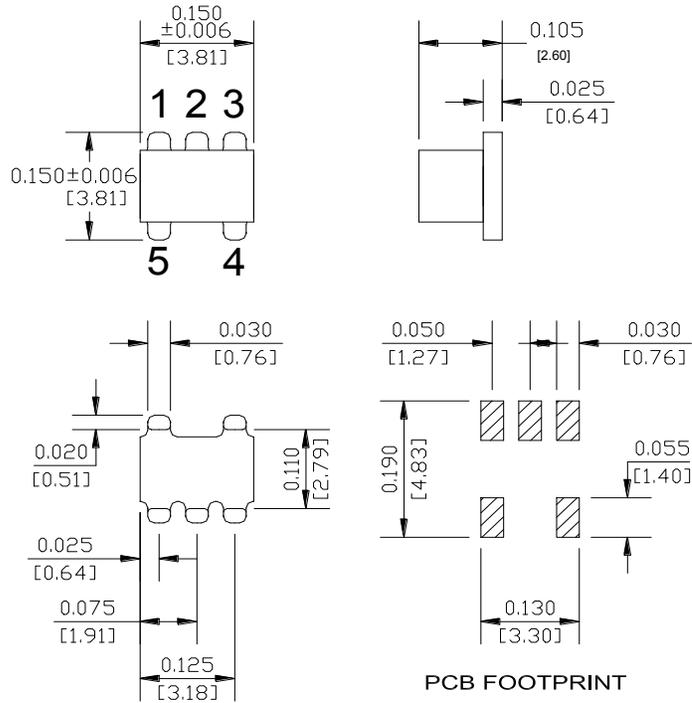
### Phase Unbalance



### Amplitude Unbalance

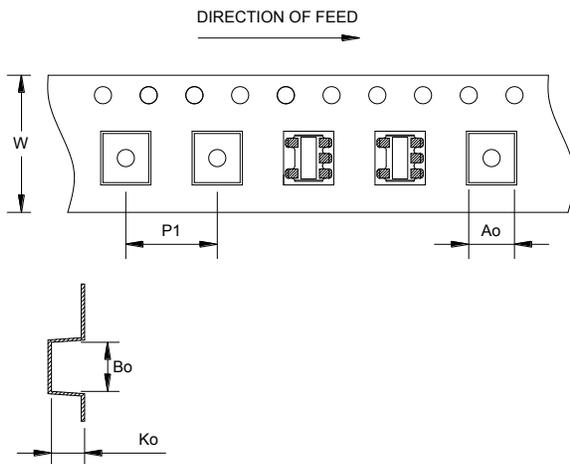


## Outline Drawing



\* Dimensions are inches (millimeters)  $\pm 0.015$  (0.38) unless otherwise specified.

## Tape & Reel Information



## Tape & Reel Information

Item	Dimension (mm)
Ao	4.00 +/-0.1
Bo	4.30 +/-0.1
Ko	2.90 +/-0.1
W	12.00 +/-0.3
P1	8.00 +/-0.1

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