

Rev. V6

RF 1:1 Transmission Line Transformer 4.5 - 3000 MHz

Features

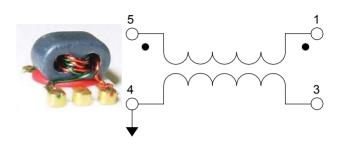
- 1:1 Impedance Ratio
- Surface Mount Package
- Tape and Reel Packaging Available
- RoHS* Compliant & 260°C Reflow Compatible

Description

The MABA-010125-TC1113 is a RoHS compliant 1:1 RF transmission line transformer in a surface mount package. The windings are welded to the package substrate for improved reliability and to eliminate lead content.

Ideally suited for high volume cellular and wireless application.

Schematic



Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary Dot	4	Primary
2	No Connection	5	Primary Dot
3	Secondary		

Electrical Specifications: Freq. = 4.5 - 3000 MHz, $T_A = 25^{\circ}C$, $Z_0 = 50 \Omega$, $P_{IN} = 0 \text{ dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Тур.	Max.
Insertion Loss	4.5 - 1000 1000 - 2000 2000 - 3000	dB	_	0.3 1.5 2.8	1.0 2.0 —
Amplitude Unbalance	4.5 - 3000	dB	_	0.5	1.0
Phase Unbalance	4.5 - 3000	o	—	5	20

Ordering Information

Parameter	Package	
MABA-010125-TC1113	2000 piece reel	

Absolute Maximum Ratings

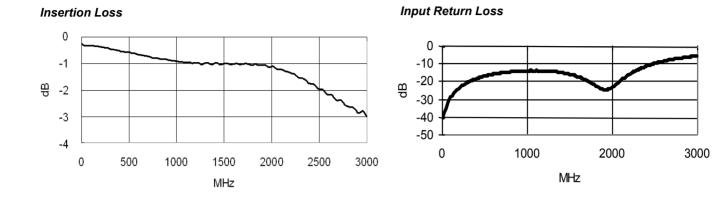
Parameter	Absolute Maximum		
RF Power	250 mW		
DC Current	50 mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +125°C		

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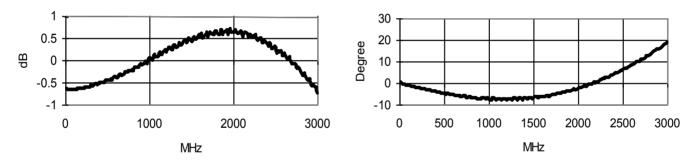
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Typical Performance Curves



Amplitude Unbalance

Phase Unbalance



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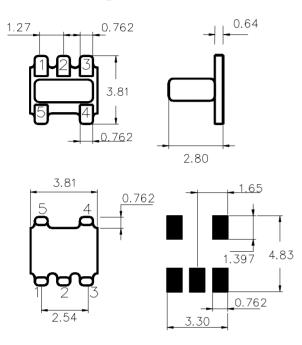
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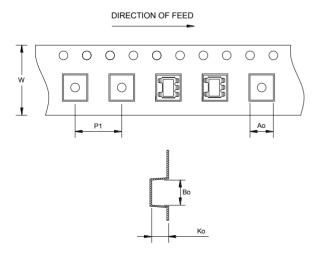
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Outline Drawing



Dimensions are inches (millimeters) ± 0.015 (0.38) unless otherwise specified. Drawing not to scale.

Tape & Reel Information



Dimensions

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

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