

1:1 Transmission Line Transformer 4.5 - 3000 MHz

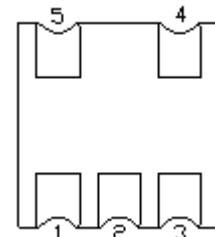
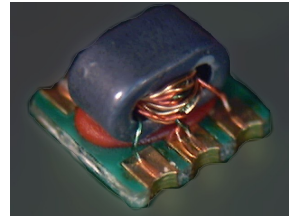
Rev. V2

Features

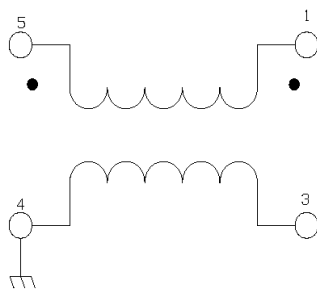
- Surface Mount Package
- 1:1 Impedance
- Wide Frequency Range
- RoHS Compliant, Lead Free
- Available on Tape and Reel

Description

The MABA-009822-715254 is a 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 Pb content. Ideally suited for high volume cellular and wireless application.



Schematic



Pin Configuration

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

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	4.5 - 1000	dB	—	0.32	1.0
	1000 - 2000			—	2.0
	2000 - 3000			—	3.5
Amplitude Unbalance	—	dB	—	0.5	1.0
Phase Unbalance	—	°	—	5	20

Ordering Information

Parameter	Package
MABA-009822-715254	2000 piece reel

Absolute Maximum Ratings

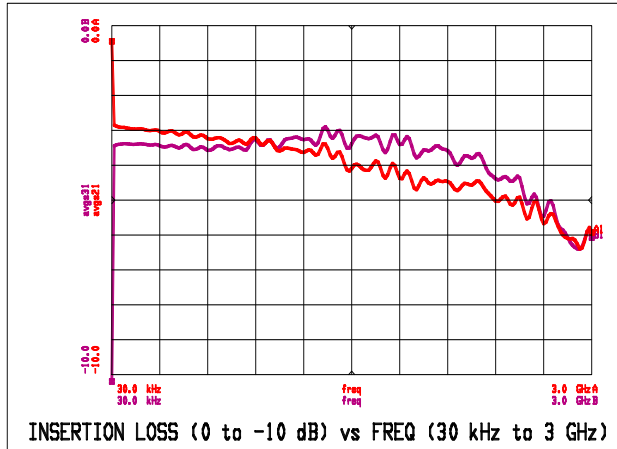
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	50 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

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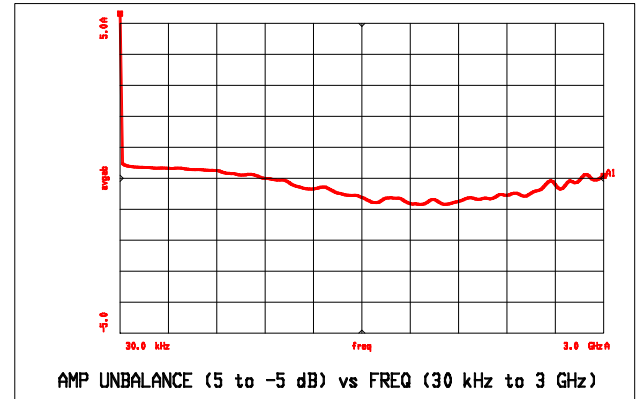
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Typical Performance: $T_A = 25^\circ\text{C}$, $Z_0 = 50 \Omega$, $P_{IN} = 0 \text{ dBm}$

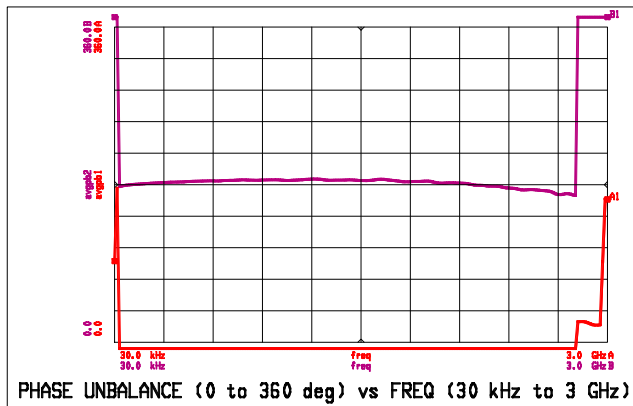
Insertion Loss



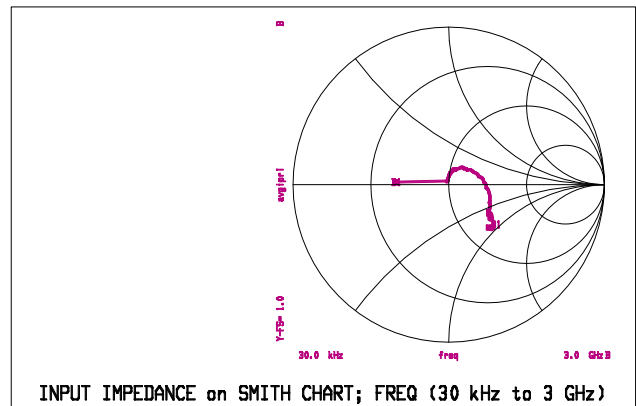
Amplitude Unbalance



Phase Unbalance



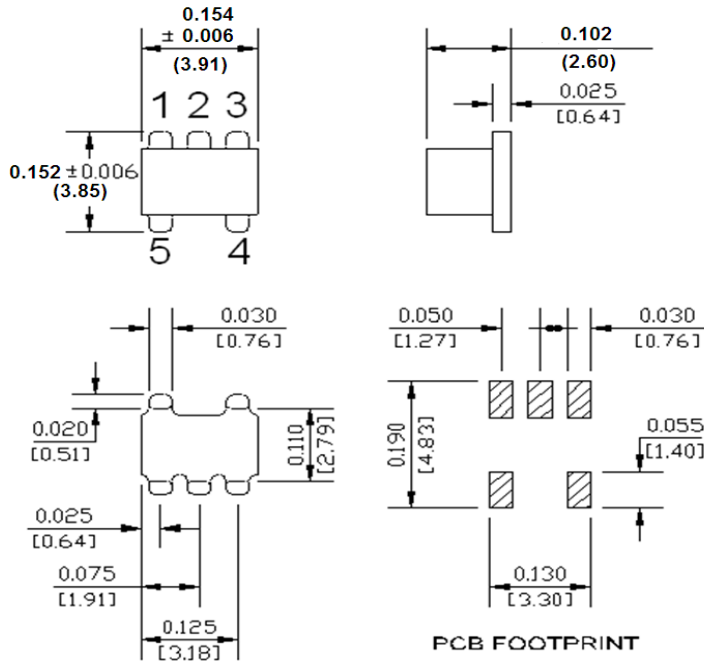
Input Impedance



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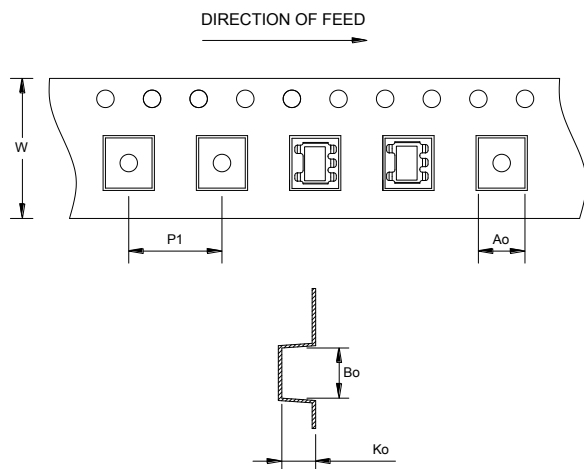
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Case Style SM-22



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
B_o	4.30 +/-0.1
K_o	2.90 +/-0.1
W	12.00 +/-0.3
$P1$	8.00 +/-0.1

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