

MABA-009822-715254



RF 1:1 Transmission Line Transformer
4.5-3000 MHz

Rev. V1

Features

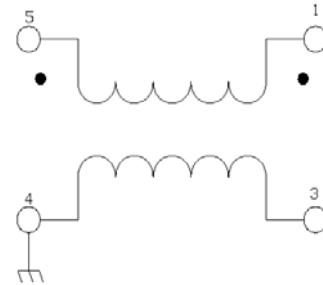
- Surface mount
- Wide frequency range
- 1:1 impedance
- Pb Free
- RoHS* Compliant.
- 260°C reflow compatible.
- Available on Tape and Reel

Description

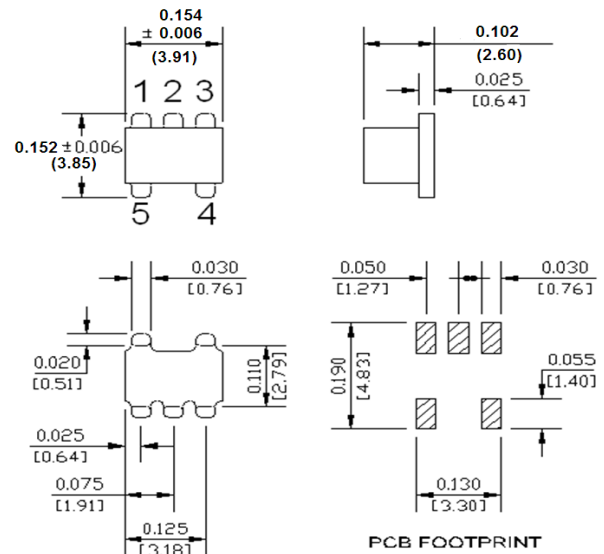
M/A-COM Technology Solutions MABA-009822-715254 is a RoHS compliant 1:1 RF transmission line transformer in a low cost, surface mount package. The windings of the MABA-009822-715254 are welded to the package substrate for improved reliability and to eliminate Pb content. Ideally suited for high volume cellular and wireless application.



Schematic



Component Dimensions



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

Pin Configuration

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

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400
 • India Tel: +91.80.43537383 • China Tel: +86.21.2407.1588
 Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Test Conditions	Test Conditions	Units	Min	Typ	Max
RF Frequency	-	4.5 - 3000	MHz	-	-	-
Insertion Loss	-	4.5 - 1000	dB	-	0.32	1.0
		1000 - 2000	dB	-	-	2.0
		2000 - 3000	dB	-	-	3.5
Amplitude Unbalance	-	4.5 - 3000	dB	-	0.5	1.0
Phase Unbalance	-	4.5 - 3000	Degrees	-	5	20

Recommended Ratings ^{1,2}

Parameter	Value
DC Power	250 mW
DC Current	50 mA
Operating Temperature	-40°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. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

MABA-009822-715254

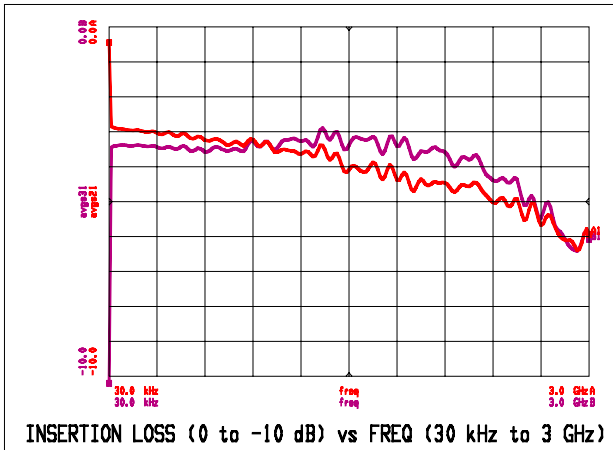


RF 1:1 Transmission Line Transformer 4.5-3000 MHz

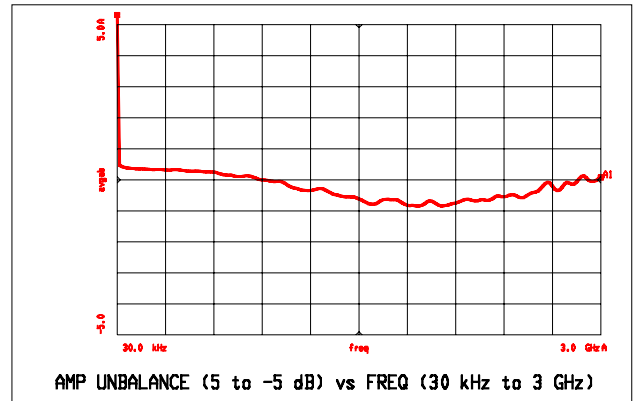
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Typical Performance Curves $T_A = 25^\circ\text{C}$

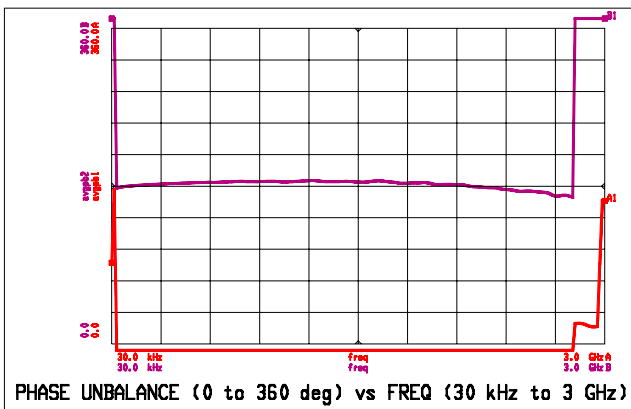
Insertion Loss



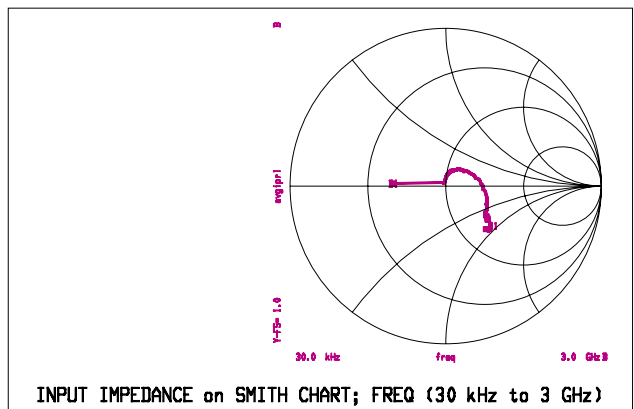
Amplitude Unbalance



Phase Unbalance



Input Impedance



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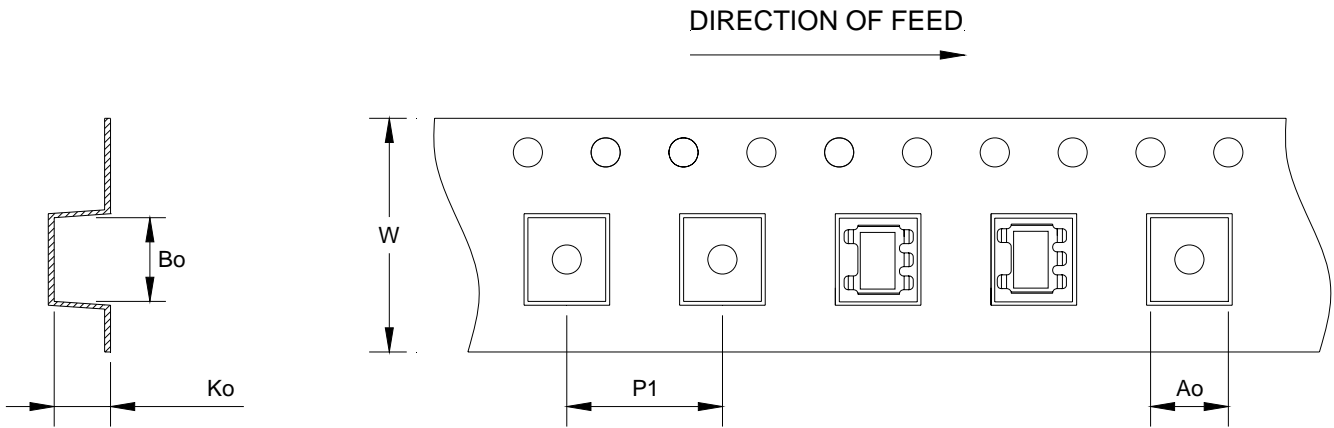
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Tape & Reel Information



Item	Dimension
A_o	4.00mm +/-0.1mm
B_o	4.30mm +/-0.1mm
K_o	2.90mm +/-0.1mm
W	12.00mm +/-0.3mm
$P1$	8.00mm +/-0.1mm

Ordering Information

Part Number	Package
MABA-009822-715254	Tape and Reel (2000 piece Reel)