

MABA-010247-2R1250



RF 1:2 Transmission Line Transformer 1-1600 MHz

Rev. V3

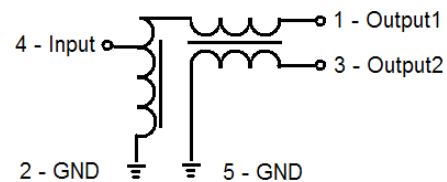
Features

- Surface mount
- 1:2 impedance
- RoHS* Compliant
- 260°C reflow compatible
- Tape and Reel Package

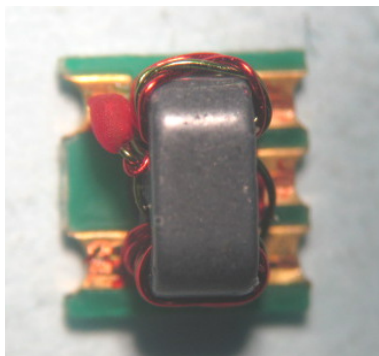
Description

M/A-COM's MABA-010247-2R1250 is a RoHS compliant 1:2 RF transmission line transformer in a low cost, surface mount package. The windings of the MABA-010247-2R1250 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.

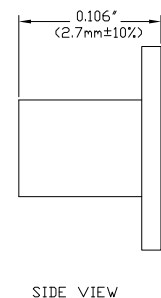
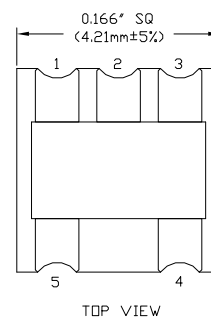
Schematic



Product Image

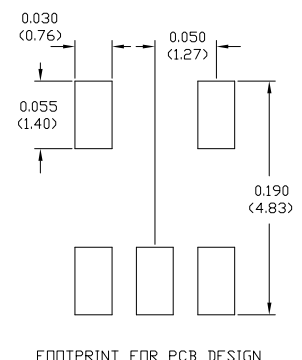
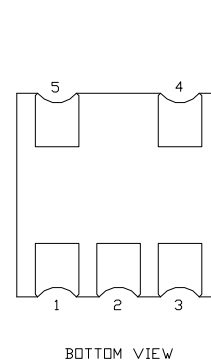


SM-197 package



Pin Configuration

Pin No.	Function
1	Secondary
2	GND
3	Secondary Dot
4	Primary Dot (Input)
5	Primary (GND)



Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

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

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
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.

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

Parameter	Test Conditions	Test Conditions	Units	Min	Typ	Max
RF Frequency	-	1 - 1600	MHz	-	-	-
Insertion Loss	-	1 - 750	dB	-	1.0	-
		750 - 1250	dB	-	1.5	2.5
		1250 - 1600	dB	-	2.0	4.0
Input Return Loss	-	1 - 500	dB	20	30	-
		500 - 1600	dB	10	15	-
Amplitude Unbalance	-	1 - 1250	dB	-	0.5	1.0
		1250 - 1600	dB	-	1.0	1.2
Phase Unbalance	-	1 - 1600	Degrees	-	5	10

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
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 does not recommend sustained operation near these survivability limits.

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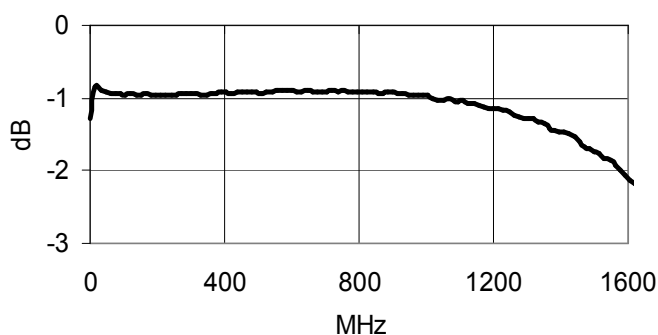


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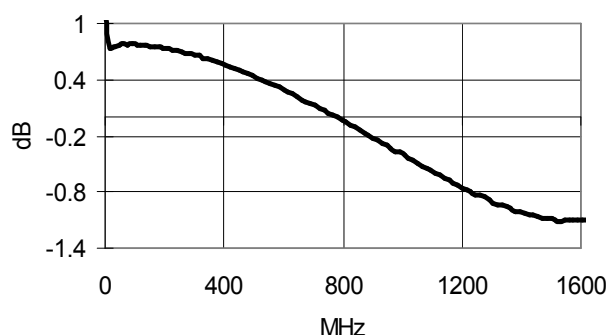
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Typical Performance Curves

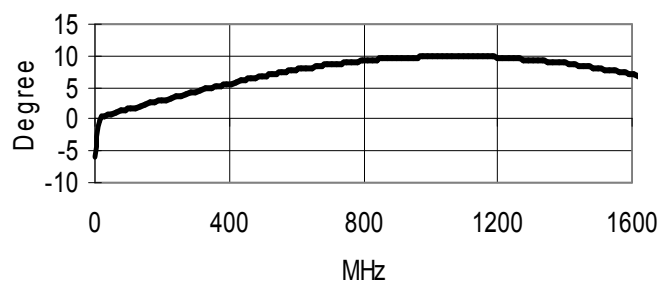
Insertion Loss



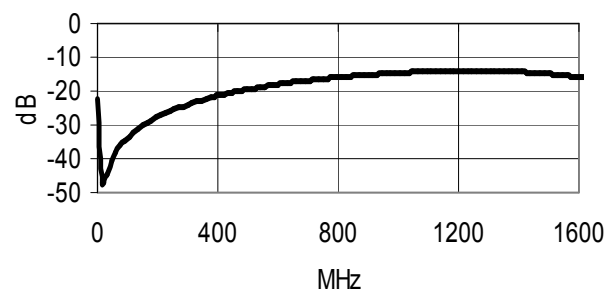
Amplitude Unbalance



Phase Unbalance



Input Return Loss



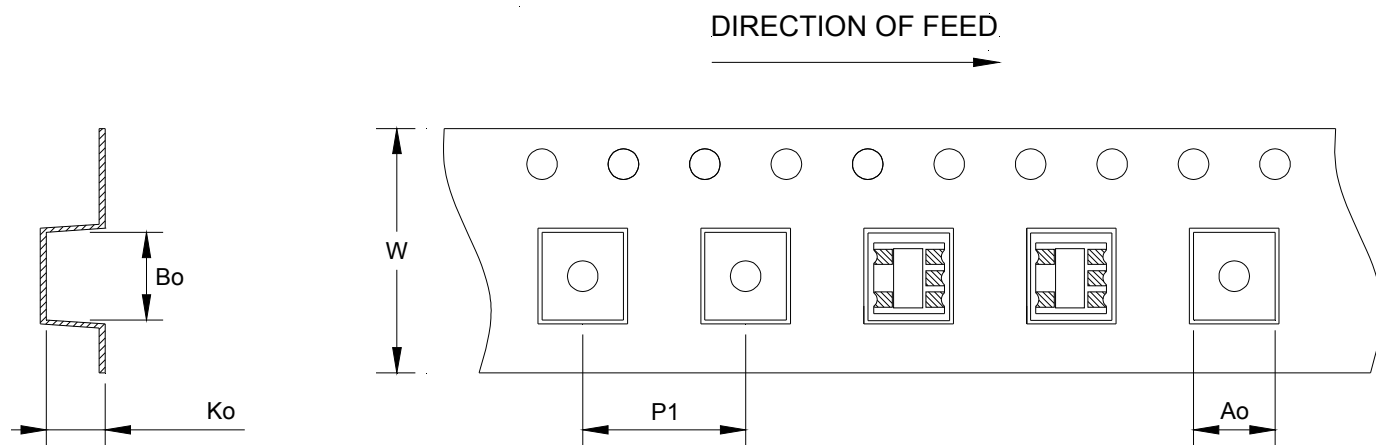
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Tape & Reel Information



Item	Dimension
Ao	4.55mm +/-0.1mm
Bo	4.75mm +/-0.1mm
Ko	3.10mm +/-0.1mm
W	12.00mm +/-0.3mm
P1	8.00mm +/-0.1mm

Ordering Information

Part Number	Package
MABA-010247-2R1250	Tape and Reel (2000 piece Reel)