

# MABA-009795-CT1C40



Transformer, 1:1 Transmission Line Transformer  
5 to 1200 MHz

Rev. V2

## Features

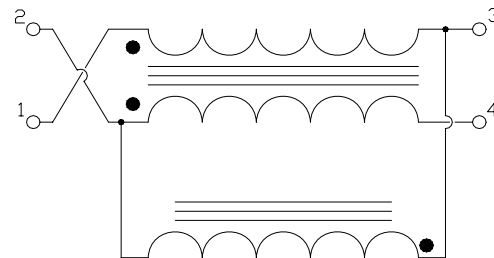
- Surface mount
- 1:1 Impedance ratio
- 260°C reflow compatible
- RoHS\* compliant
- Available on tape and reel.

## Description

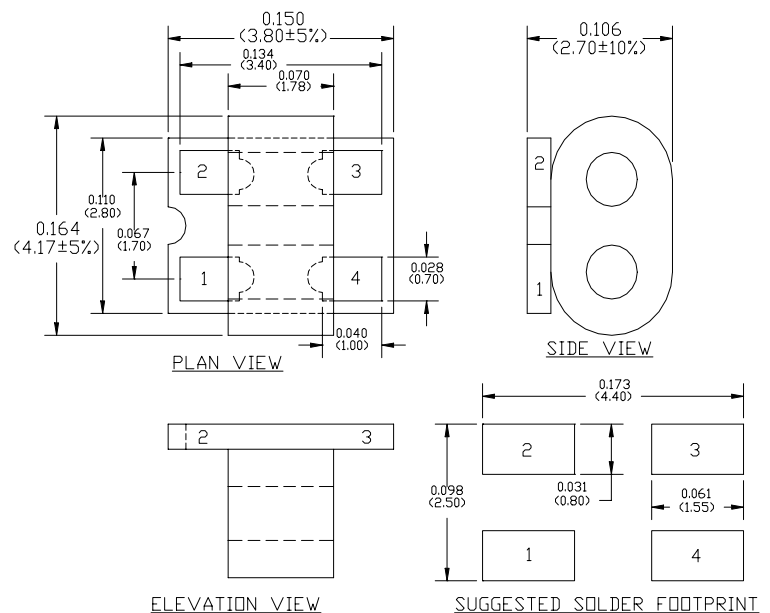
M/A Com Technology Solutions MABA-009795-CT1C40 is a 1:1 RF Transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



## Schematic



## Component Dimensions



## Pin Configuration

Pin no.	Function
1	Output 1
2	Output 2
3	Ground
4	Input

Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010, unless otherwise stated

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

**ADVANCED:** Data Sheets contain information regarding a product MA-COM Technical 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 MA-COM Technical 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](http://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.

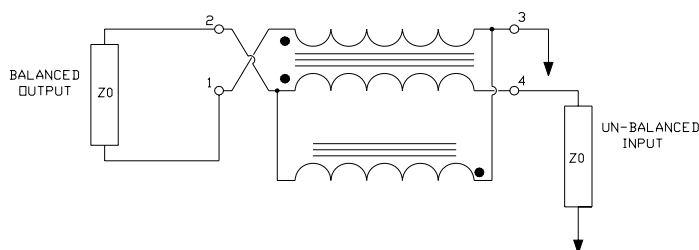
**Electrical Specifications:**  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 500 MHz	dB	-	0.3	0.8
	500 - 1000 MHz	dB	-	0.8	1.5
	1000 - 1200 MHz	dB	-	1.3	2.0
Amplitude Balance (Nominal 0dB)	5 - 500 MHz	dB	-	0.2	$\pm 0.7$
	500 - 1200 MHz	dB	-	0.4	$\pm 1.5$
Phase Balance (Nominal 180°)	5 - 500 MHz	°	-	3	$\pm 8$
	500 - 1200 MHz	°	-	5	$\pm 10$
Input Return Loss	5 - 500 MHz	dB	19	31	-
	500 - 1200 MHz	dB	7	13	-

## Recommended Maximum Ratings

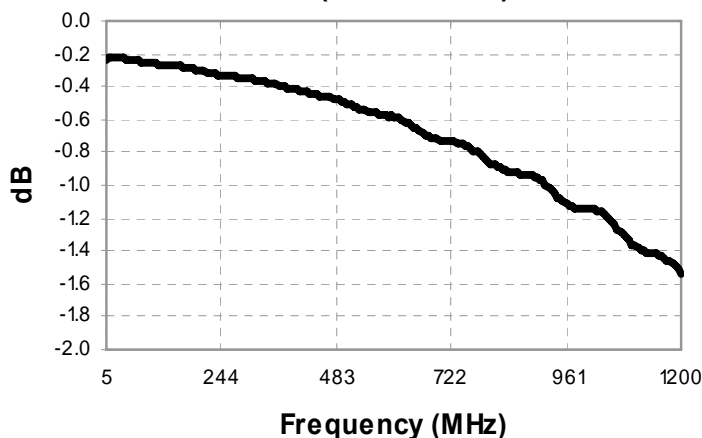
Parameter	Value
Input power	+24dBm (250mW)
DC current	1000mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +100°C

## Application Circuit

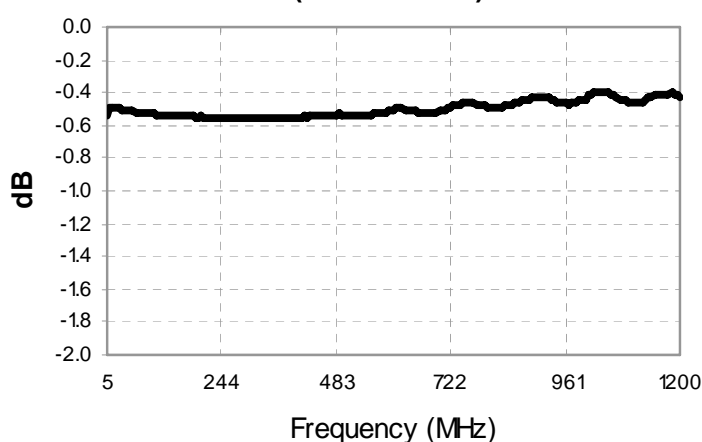


Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

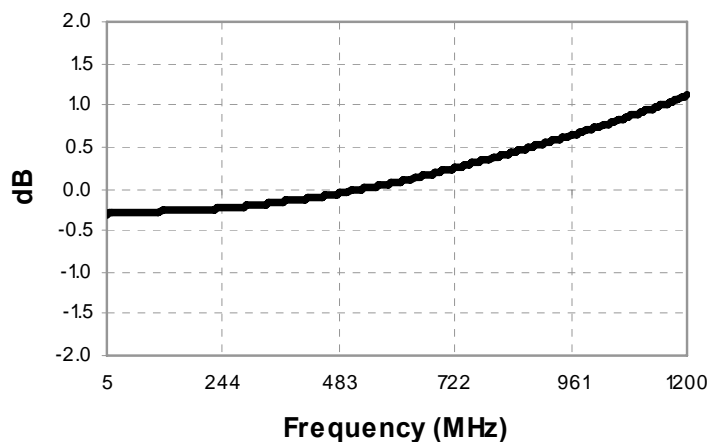
Insertion Loss 1: (Pin 4 - Pin2)



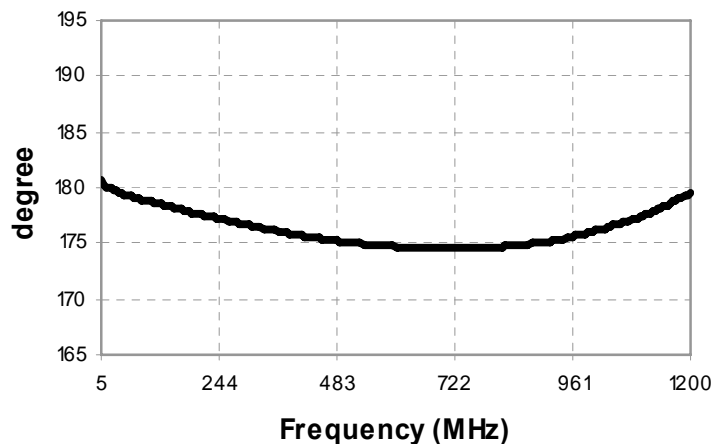
Insertion Loss 2: (Pin 4 - Pin1)



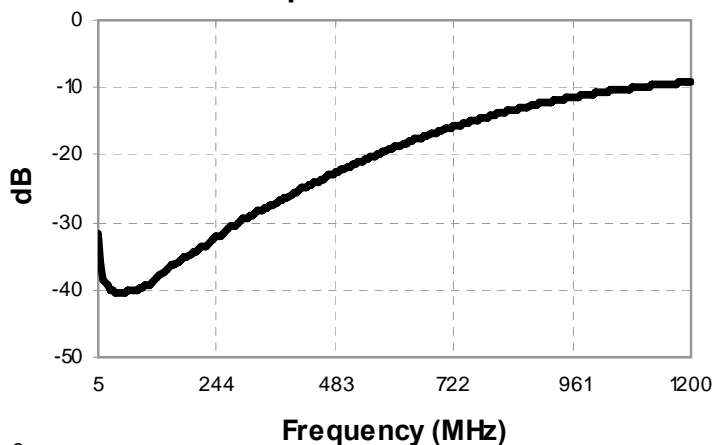
Amplitude Balance



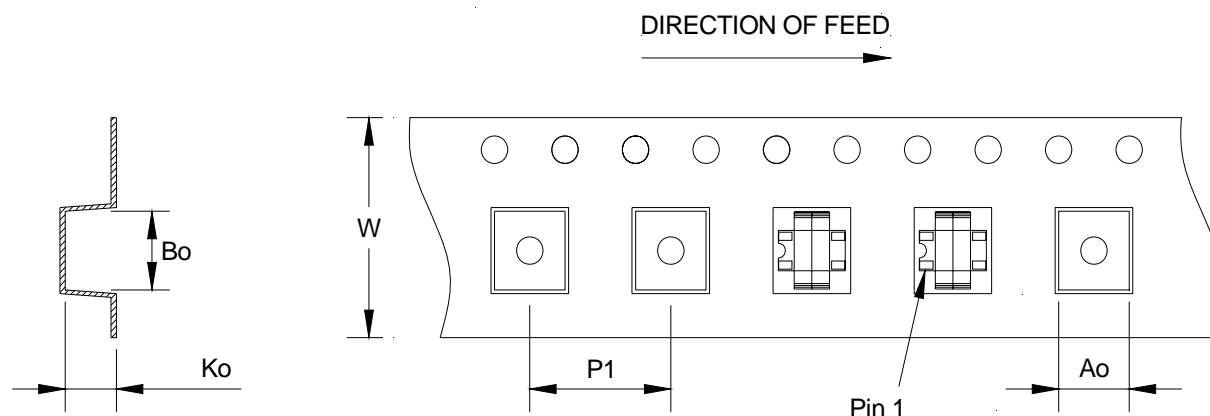
Phase Balance



Return Loss: Input



## Tape & Reel Information



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

## Ordering Information

Part number	Description
MABA-009795-CT1C40	2000 piece reel
MABA-009795-CT1CTB	Customer Test Board