

## Features

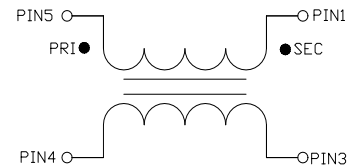
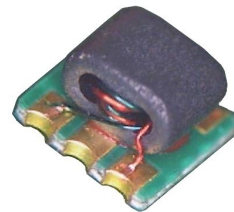
- 1:1 Impedance Ratio
- Surface Mount Package
- Available on Tape and Reel
- RoHS Compliant and Lead Free
- 260°C Reflow Compatible
- Excellent Temperature Stability
- Excellent Amplitude and Phase Balance
- Can be used in both 50 Ω & 75 Ω systems

## Description

The MABA-007327-CT1A40 is a 1:1 RF transmission line transformer in a surface mount package.

Ideally suited for broadband CATV applications.

## Functional Schematic



## Pin Configuration

Pin #	Function
1	Secondary Dot
2	Not connected
3	Secondary
4	Primary
5	Primary Dot

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

Parameter	Frequency	Units	Min.	Typ.	Max.
Insertion Loss 1	4.5 - 1000 MHz	dB	—	0.8	1.0
	1000 - 2000 MHz			1.6	2.0
	2000 - 3000 MHz			2.5	3.5
Amplitude Balance	Nominal 0 dB, 4.5 - 3000 MHz	dB	—	±0.50	±1.0
Phase Balance	Nominal 180°, 4.5 - 3000 MHz	°	—	±10.0	±20.0

## Ordering Information

Part number	Description
MABA-007327-CT1A40	2000 piece reel
MABA-007327-CT1ATB	Customer Test Board

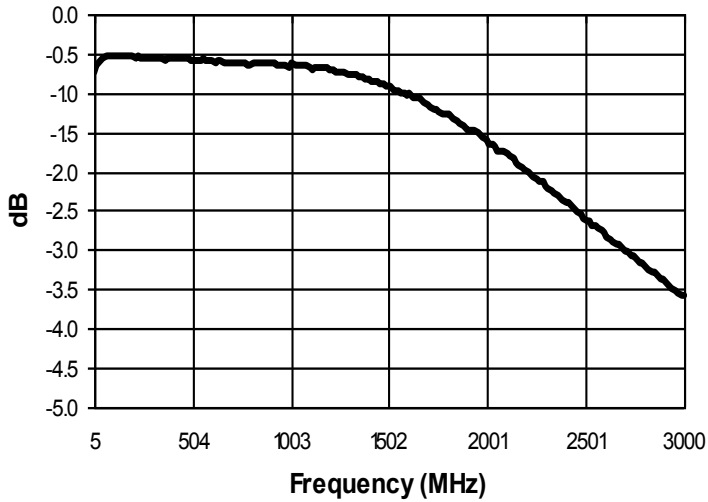
## Recommended Maximum Ratings<sup>1,2</sup>

Parameter	Value
Input power	250 mW
DC current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

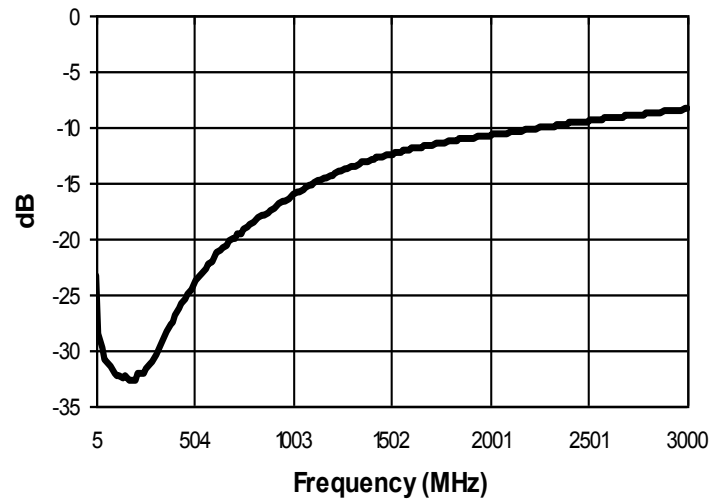
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

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

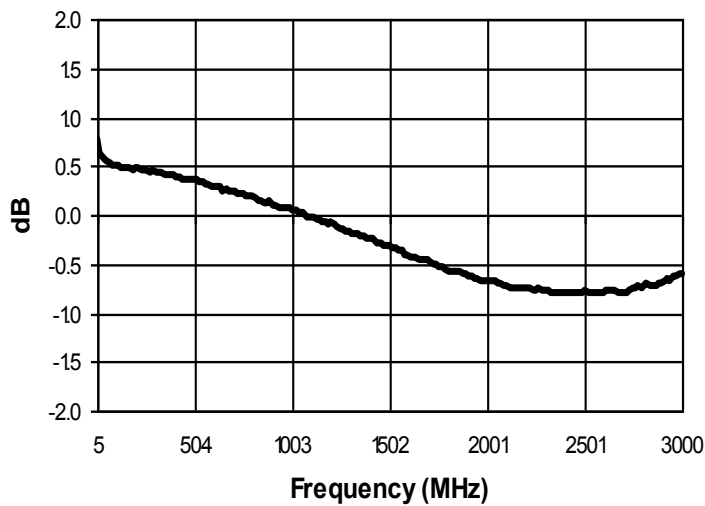
### Insertion Loss



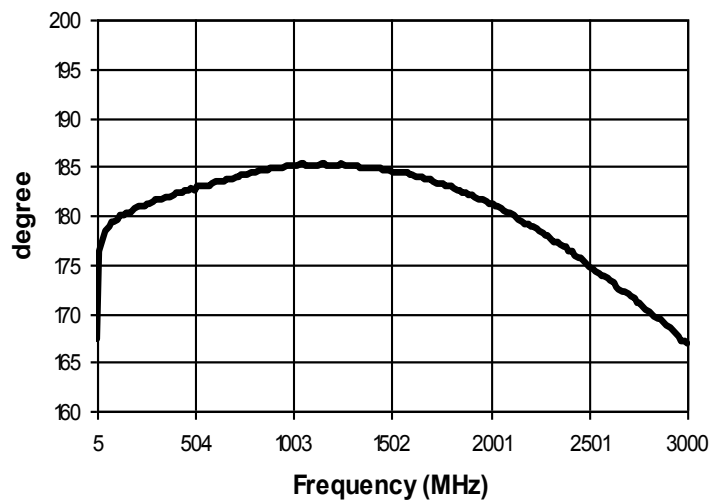
### Return Loss: Input



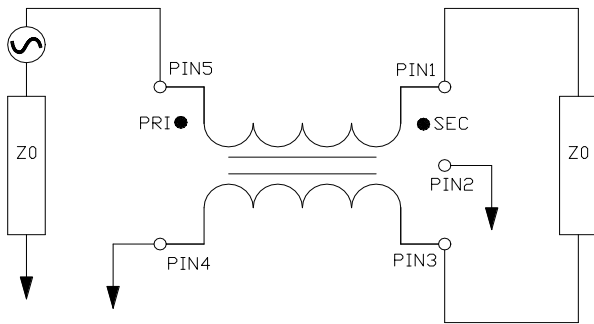
### Amplitude Balance



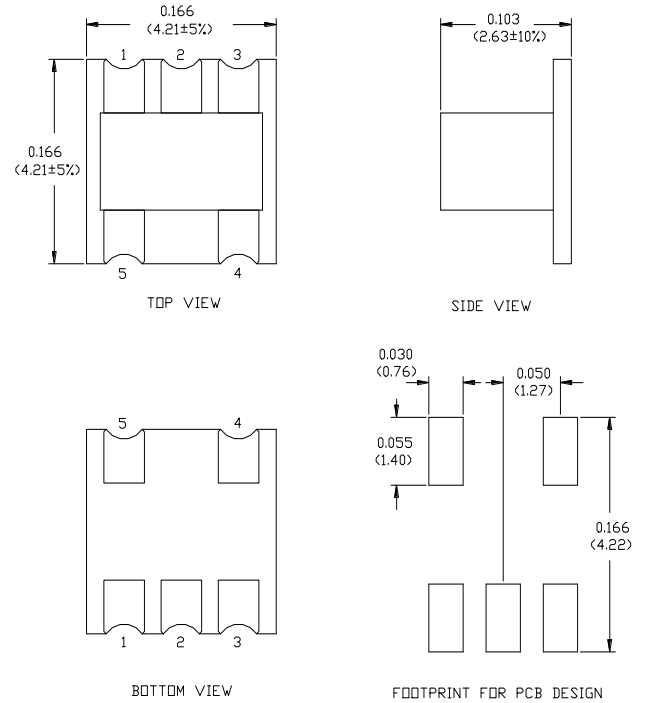
### Phase Balance



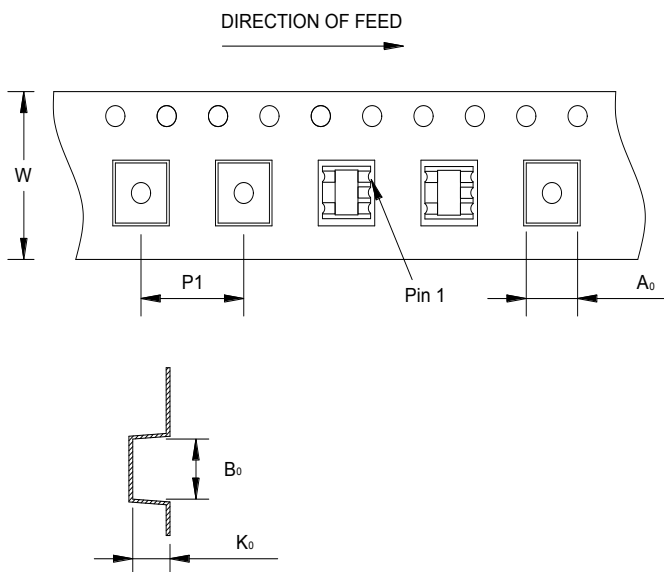
## Application Circuit



## Outline Drawing



## Reel Orientation



## Tape & Reel Information

Item	Dimension
A <sub>0</sub>	4.50 mm +/- 0.1 mm
B <sub>0</sub>	4.50 mm +/- 0.1 mm
K <sub>0</sub>	2.73 mm +/- 0.1 mm
W	12.0 mm +/- 0.3 mm
P1	8.0 mm +/- 0.1 mm

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