

## Features

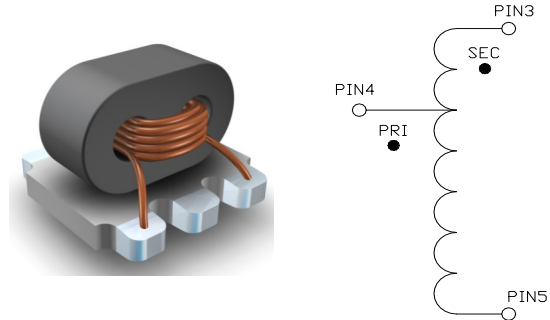
- 1:1.77 Impedance Ratio
- Surface Mount Package
- Excellent Temperature Stability
- Can Be Used on 50  $\Omega$  & 75  $\Omega$  Systems
- Suitable for all CATV, Broadband and FTTx Applications
- RoHS Compliant & Lead Free
- 260°C Reflow Compatible
- Available on Tape & Reel

## Description

The MABA-010463-CA2A40 is a 1:1.77 transmission line transformer in a surface mount package.

Ideally suited for all CATV Broadband and FTTx applications.

## Functional Schematic



## Pin Configuration

Pin #	Function
1,2	No Connection (Ground)
3	Secondary Dot
4	Primary Dot
5	Ground

## Electrical Specifications: Freq. = 20 - 1000 MHz, $T_A = 25^\circ\text{C}$ , $Z_0 = 75 \Omega$ , $P_{IN} = 0 \text{ dBm}$

Parameter	Frequency (MHz)	Units	Min.	Typ.	Max.
Impedance Ratio	—	dB	—	1:1.77	—
Insertion Loss (pin 4 - 3)	20 - 500	dB	—	0.6	0.8
	500 - 1000			1.1	1.2
Input Return Loss (pin 4)	20 - 150	dB	20	22	—
	150 - 500		12	13	
	500 - 1000		8	9	

## Ordering Information

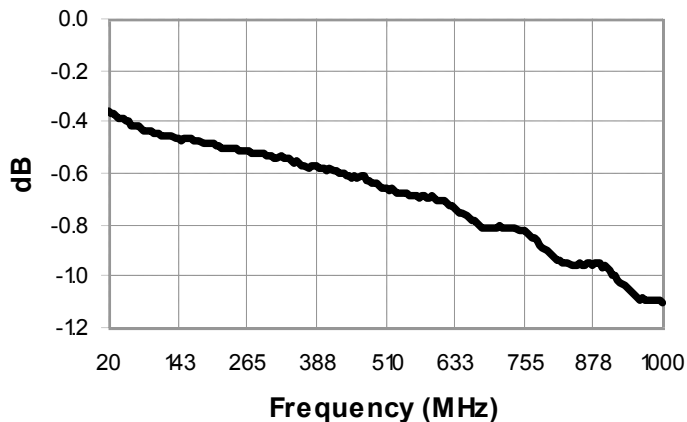
Part #	Description
MABA-010463-CA2A40	2000 piece reel

## Recommended Maximum Ratings

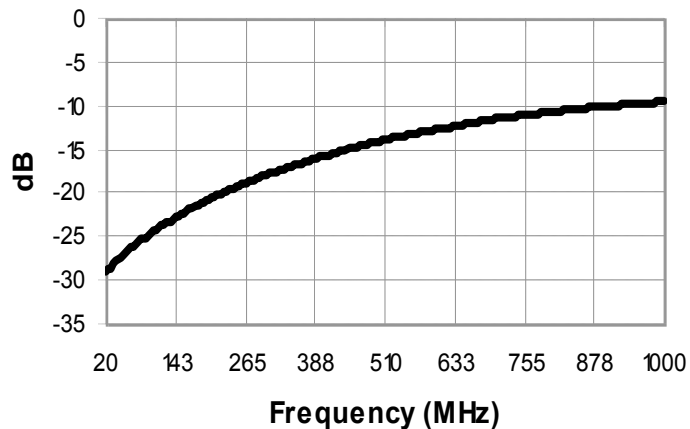
Parameter	Value
Input Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

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

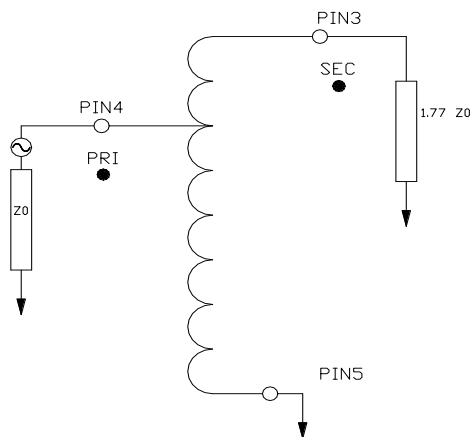
Insertion Loss: (Pin 4 to 3)



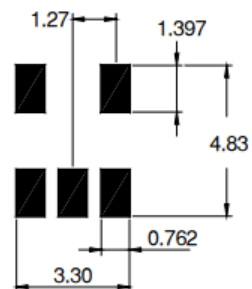
Return Loss: (pin 4)



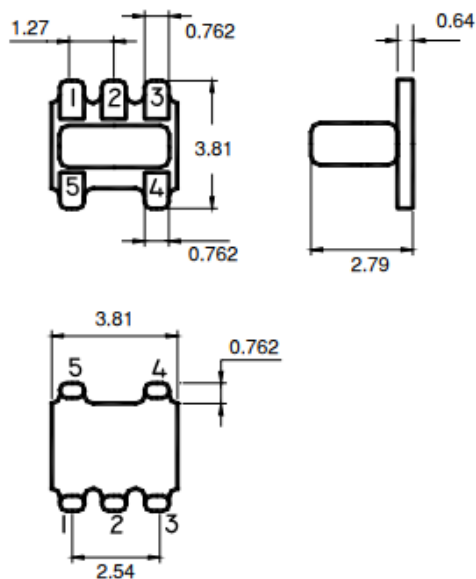
## Application Circuit



## PCB Layout



## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$  mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: ENIG

## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.0
Pitch	mm	8.0
Ao	mm	4.0
Bo	mm	4.0
Ko	mm	2.9
Orientation	-	F5
Reference Application Note ANI-019 for orientation		

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