

## Features

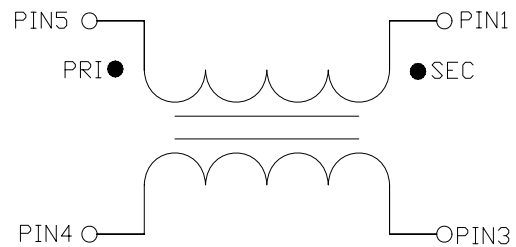
- 1:1 Impedance ratio
- Surface mount
- Available on tape and reel
- RoHS compliant and lead free
- 260°C reflow compatible
- Excellent temperature stability
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems

## Description

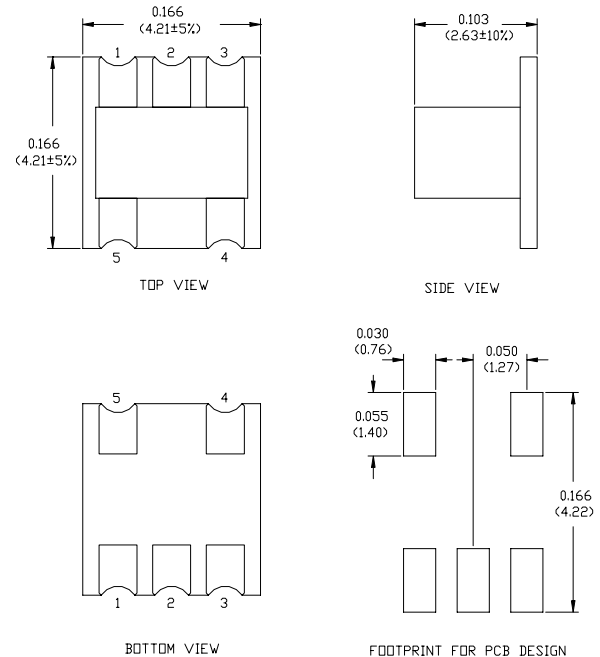
M/A-Com Technology Solutions MABA-007327-CT1A40 is a 1:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



## Schematic



## Component dimensions



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

## Pin Configuration

Pin no.	Function
1	Secondary Dot
2	Not connected
3	Secondary
4	Primary
5	Primary Dot

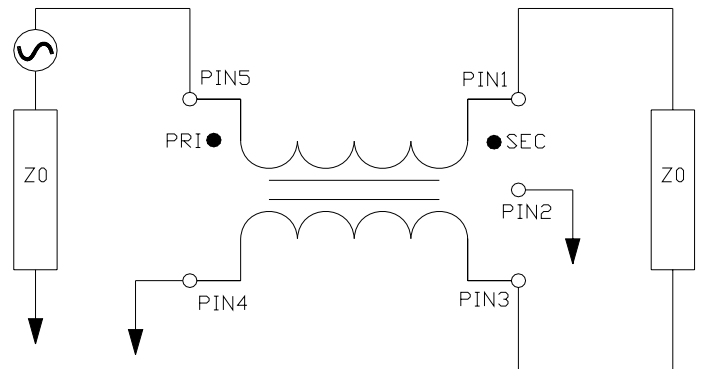
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$**

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss 1	4.5 - 1000MHz	dB	-	0.8	1.0
	1000 - 2000MHz	dB	-	1.6	2.0
	2000 - 3000 MHz	dB	-	2.5	3.5
Amplitude Balance (Nominal 0dB)	4.5 - 3000 MHz	dB	-	$\pm 0.50$	$\pm 1.0$
Phase Balance (Nominal $180^\circ$ )	4.5 - 3000 MHz	$^\circ$	-	$\pm 10.0$	$\pm 20.0$

## Recommended Maximum Ratings

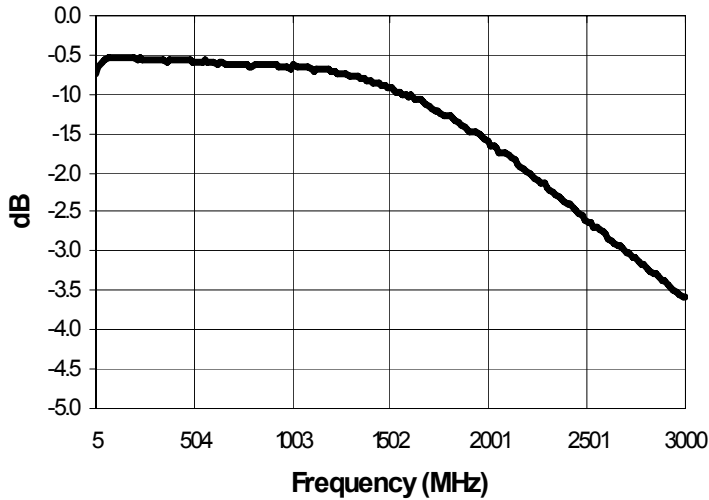
Parameter	Value
Input power	At least 250mW
DC current	At least 30mA
Operating Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C}$ to $+100^\circ\text{C}$

## Application Circuit

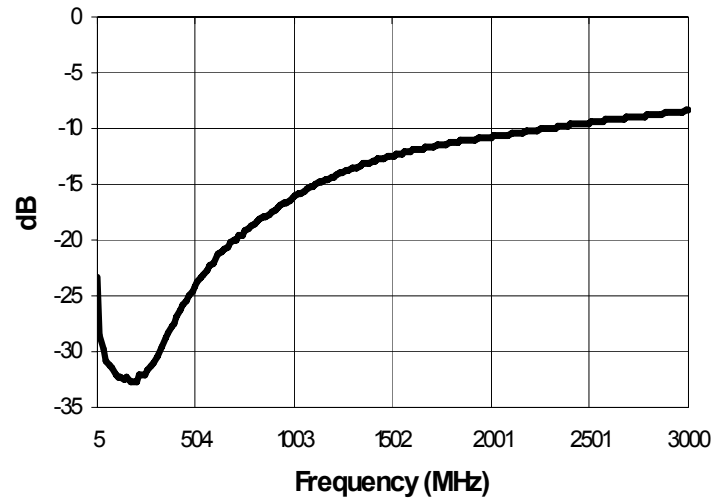


Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $0\text{dBm}$ ,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

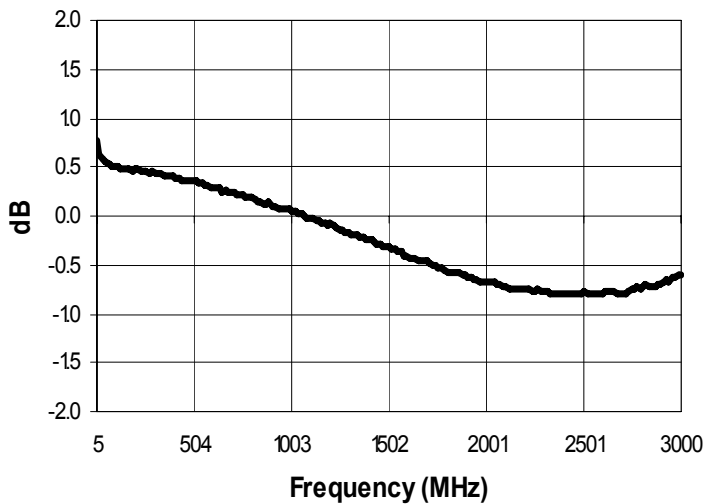
## Insertion Loss



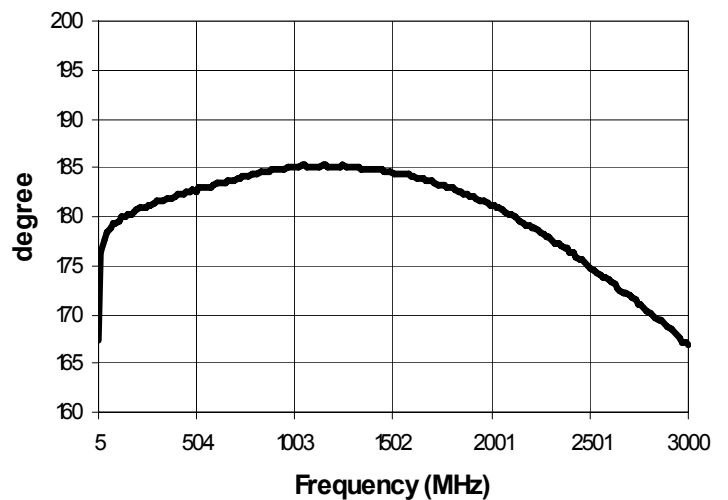
## Return Loss: Input



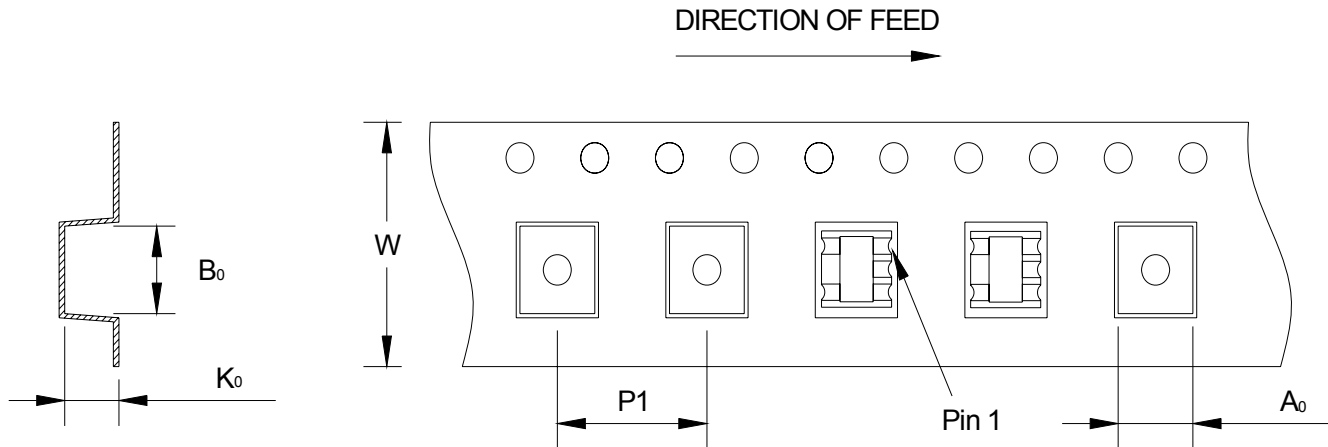
## Amplitude Balance



## Phase Balance



## Tape & Reel Information



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

## Ordering Information

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