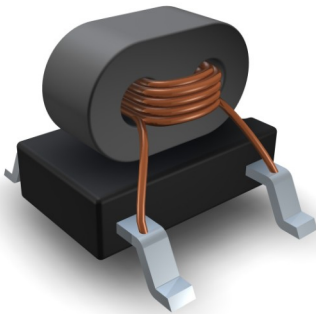


## Features

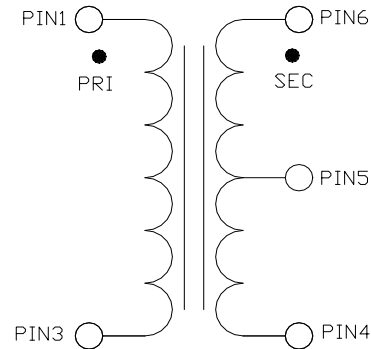
- Surface mount
- 1:1 Impedance ratio
- Centre tap on Secondary
- Suitable for DOCSIS 3.0
- 260°C reflow compatible
- RoHS\* compliant
- Available on tape and reel.

## Description

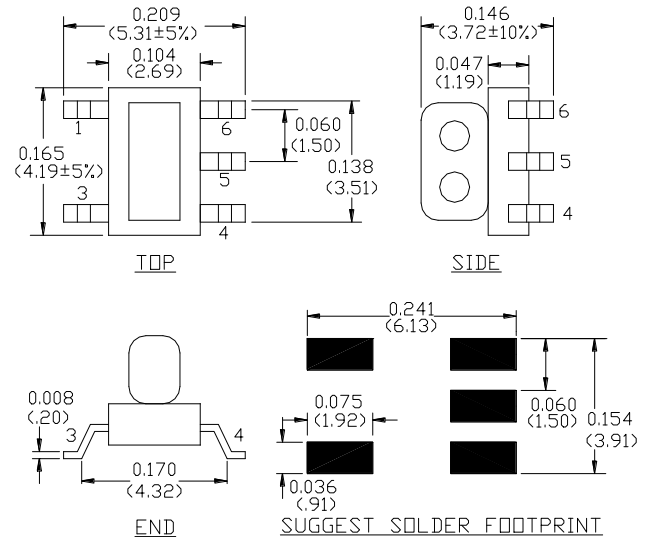
M/A-COM Technology Solutions MABA-009594-CF18A0 is a 1:1 RF Flux coupled transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



## Schematic



## Component Dimensions



## Pin Configuration

Pin No.	Function
1	Primary Dot
3	Primary
4	Secondary
5	Secondary Centre Tap
6	Secondary dot

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

Transformer, 1:1 Flux Coupled Transformer  
5 to 200 MHz

Rev. V6

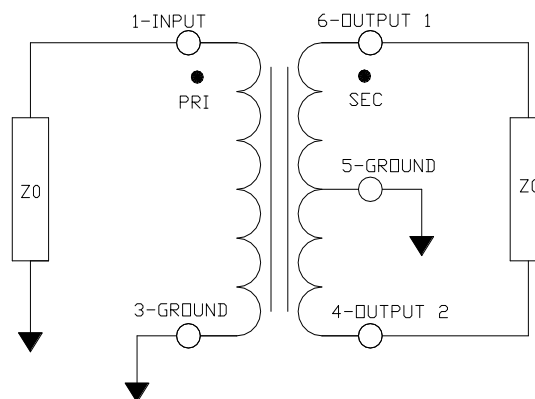
Electrical Specifications:  $T_A = 25^\circ\text{C}$ , 0dBm,  $Z_0 = 75\Omega$ ,  $P_{in} = 0\text{dBm}$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 60 MHz	dB	-	0.3	0.6
	60 - 150 MHz	dB	-	0.4	0.8
	150 - 200 MHz	dB	-	0.7	1.0
Amplitude Unbalance (Nominal 0dB)	5 - 60 MHz	dB	-	0.0	$\pm 0.1$
	60 - 200 MHz	dB	-	0.2	$\pm 0.4$
Phase Unbalance (Nominal 180°)	5 - 60 MHz	°	-	0.1	$\pm 2.0$
	60 - 200 MHz	°	-	0.3	$\pm 4.0$
Input Return Loss	5 - 60 MHz	dB	22	31	-
	60 - 200 MHz	dB	14	17	-

## Recommended Maximum Ratings

Parameter	Value
Input power	+28dBm (631mW)
DC current (tested at 5V)	600mA
Operating Temperature	$-40^\circ\text{C}$ to $+100^\circ\text{C}$
Storage Temperature	$-55^\circ\text{C}$ to $+100^\circ\text{C}$

## Application Circuit

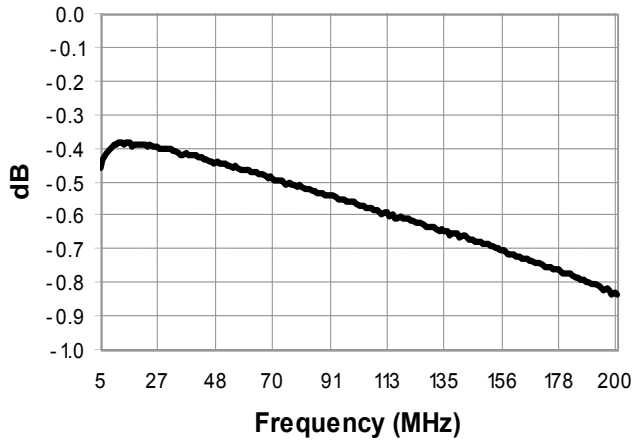


Transformer, 1:1 Flux Coupled Transformer  
5 to 200 MHz

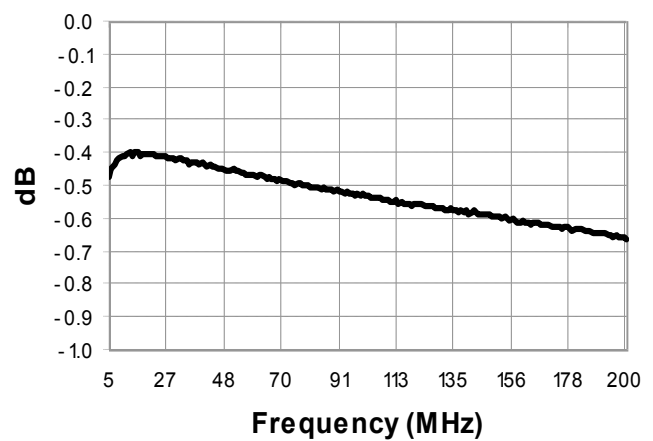
Rev. V6

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

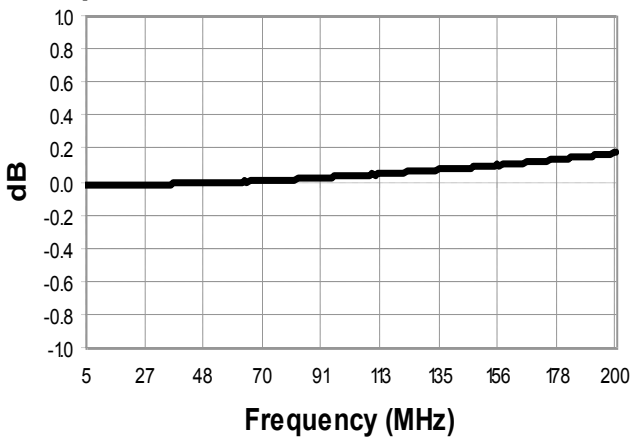
Insertion Loss 1: (Pin 1 to 6)



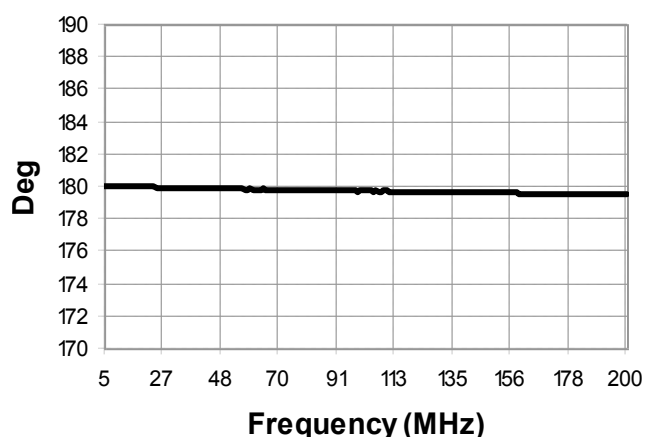
Insertion Loss 2: (Pin 1 to 4)



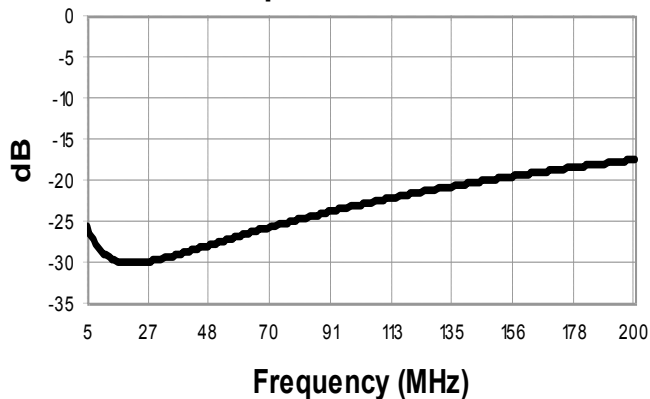
Amplitude Balance



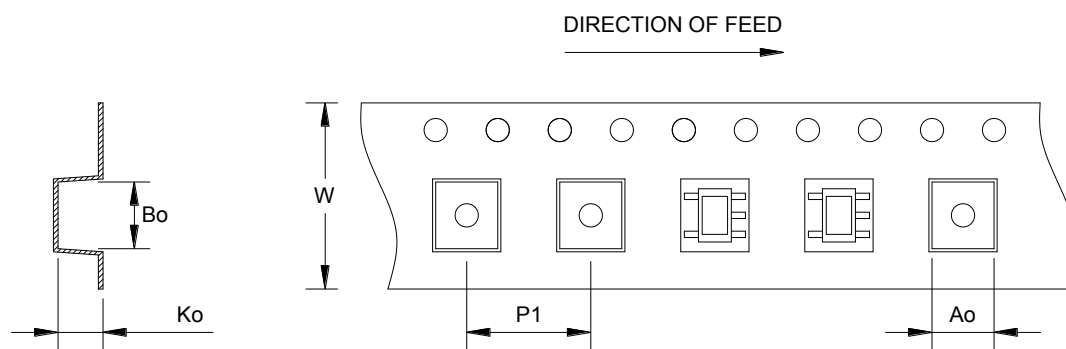
Phase Balance



Return Loss: Input



## Tape & Reel Information



Item	Dimension
$A_o$	5.60mm +/- 0.1mm
$B_o$	4.50mm +/- 0.1mm
$K_o$	4.00mm +/- 0.1mm
$W$	12.00mm +/- 0.3mm
$P1$	8.00mm +/- 0.1mm

## Ordering Information

Part number	Description
MABA-009594-CF18A0	2000 piece reel
MABA-009594-CF18TB	Customer Test Board

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