

MABA-010112-CT1A40



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

M/A-COM Products
Rev. V1

Features

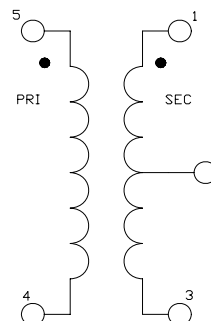
- Surface mount
- 1:1 Impedance ratio
- Centre tap on Secondary
- 260°C reflow compatible
- RoHS* compliant
- Available on tape and reel

Description

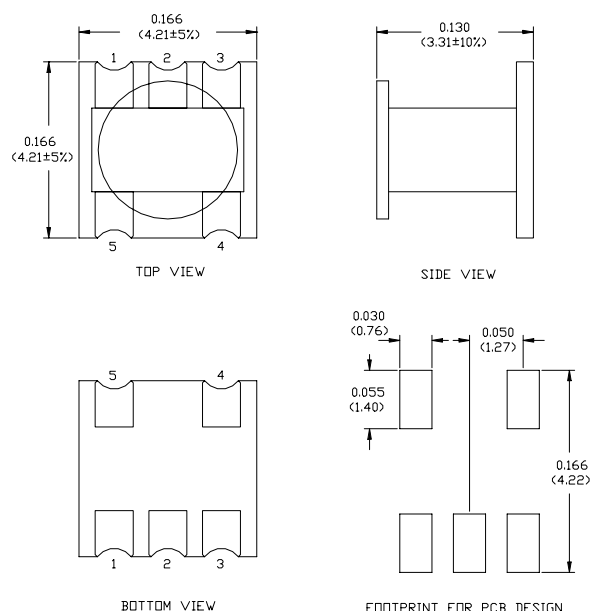
M/A Com's MABA-010112-CT1A40 is a 1:1 RF Flux coupled transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Case style



Pin Configuration

Pin no.	Function
1	Secondary dot
2	Secondary Centre Tap
3	Secondary
4	Primary
5	Primary Dot

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.

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Visit www.macomtech.com for additional data sheets and product information.

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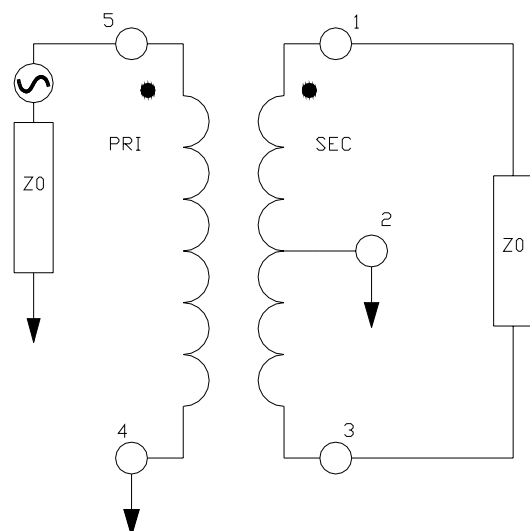
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss 1 Pin 5 to 1	0.3 - 5 MHz	dB	-	1.0	2.6
	5 - 200 MHz	dB	-	0.5	0.9
Insertion Loss 2 Pin 5 to 3	0.3 - 10 MHz	dB	-	1.0	2.6
	10 - 200 MHz	dB	-	0.4	0.75
Amplitude Unbalance (Nominal 0dB)	0.3 - 200 MHz	dB	-	± 0.1	± 0.3
Phase Unbalance (Nominal 180°)	0.3 - 200 MHz	°	-	± 0.3	± 3.0
Input Return Loss	0.3 - 5 MHz	dB	5	13	-
	5 - 120 MHz	dB	19	27	-
	120 - 200 MHz	dB	15	21	-

Recommended Maximum Ratings

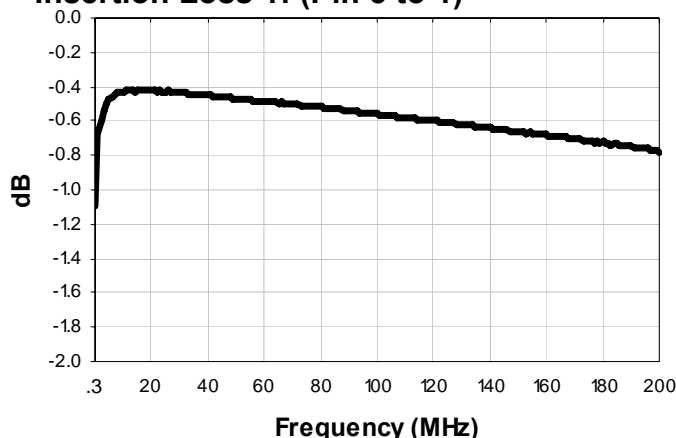
Parameter	Value
Input power	250mW
DC current	200mA
Operating Temperature	-40°C to $+85^\circ\text{C}$
Storage Temperature	-55°C to $+100^\circ\text{C}$

Application Circuit

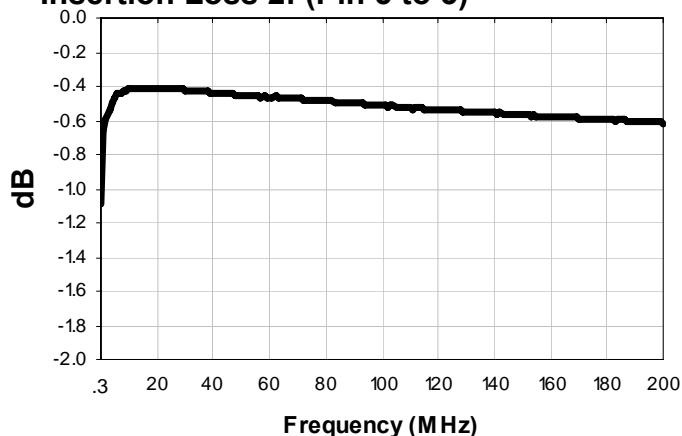


Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

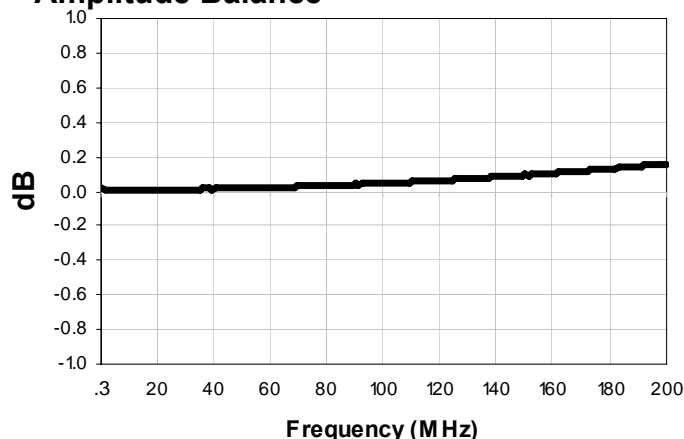
Insertion Loss 1: (Pin 5 to 1)



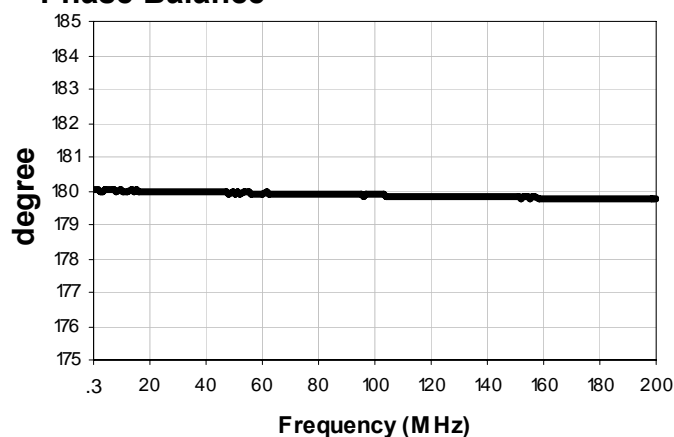
Insertion Loss 2: (Pin 5 to 3)



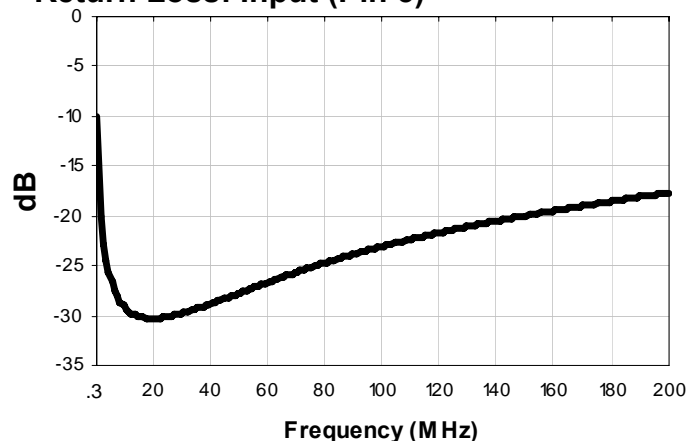
Amplitude Balance



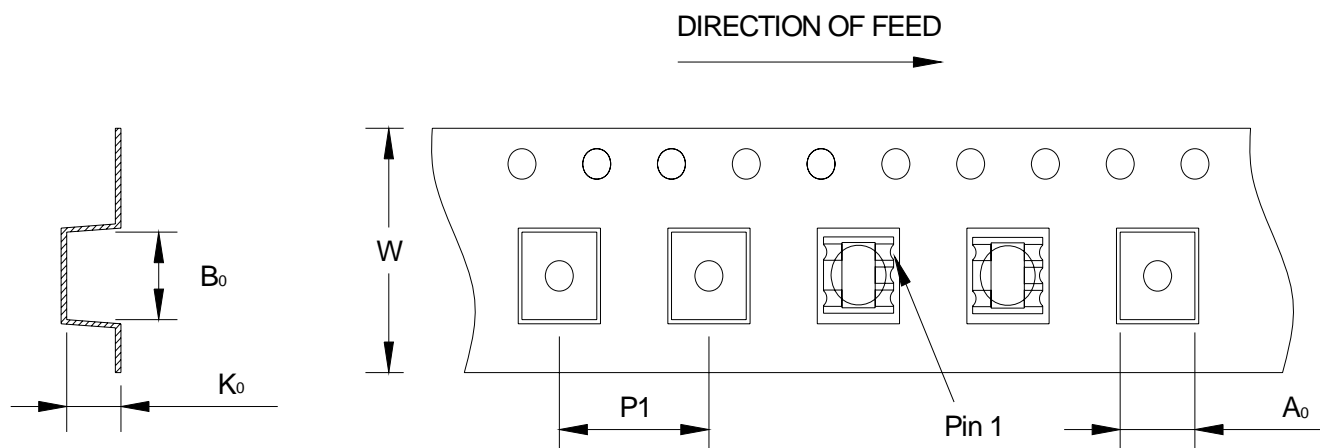
Phase Balance



Return Loss: Input (Pin 5)



Tape & Reel Information



Item	Dimension
Ao	4.39mm +/- 0.1mm
Bo	4.35mm +/- 0.1mm
Ko	3.67mm +/- 0.1mm
W	12.0mm +/- 0.3mm
P1	8.0mm +/- 0.1mm

Ordering Information

Part number	Description
MABA-010112-CT1A40	2000 piece reel
MABA-010112-CT1ATB	Customer Test Board