

MABA-010051-CF1A41



Transformer, 10/100BASE-T Ethernet Transformer
1 to 100 MHz

Rev. V3

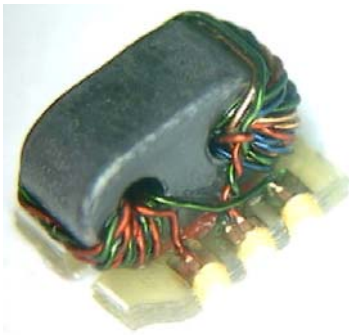
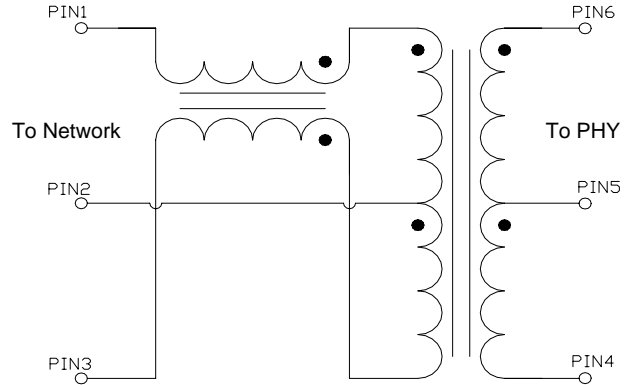
Features

- Surface mount
- 100 Ohm bal-bal, 1:1 Impedance ratio
- Product suited for both RX and TX channel
- 260°C reflow compatible
- RoHS* compliant and lead free
- Available on tape and reel

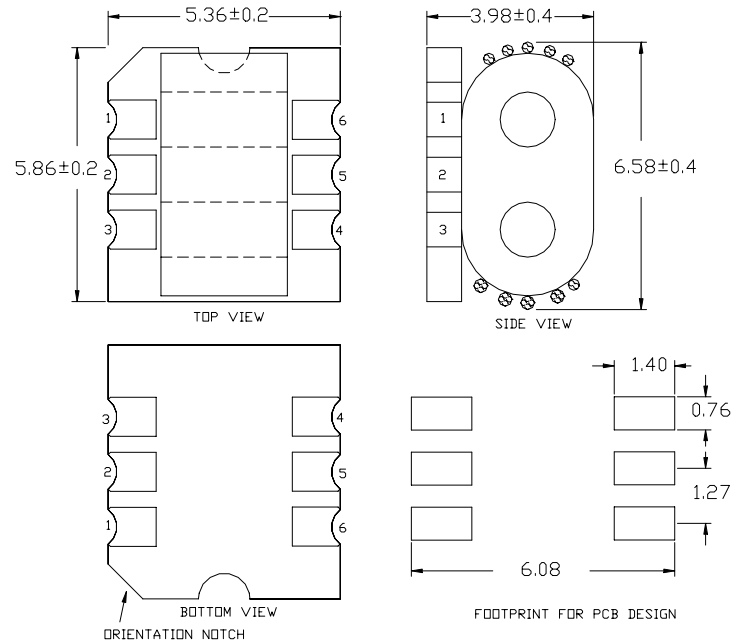
Description

M/A-Com Technology Solutions MABA-010051-CF1A41 is a 10/100BASE-T Ethernet Transformer in a low cost, surface mount package.

Schematic



Component Dimensions



Pin Configuration

Pin no.	Function
1	Primary Dot
2	Ground
3	Primary
4	Secondary
5	Ground
6	Secondary Dot

* 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, $Z_0 = 50\Omega$, $P_{in} = 0\text{dBm}$

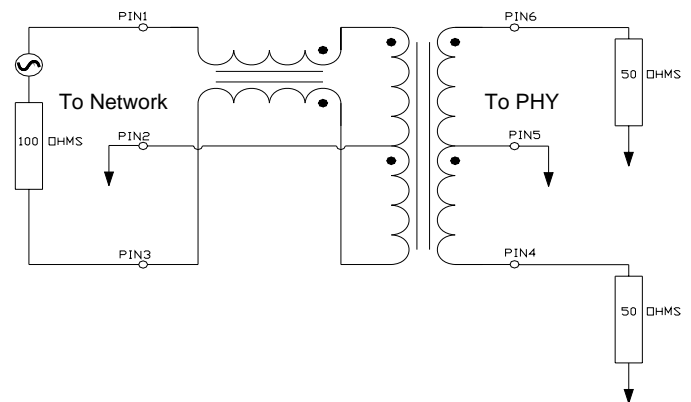
Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss (Sdd21)	1 - 10 MHz	dB	-0.5	-0.39	-
	10 - 65 MHz	dB	-0.4	-0.34	-
	65 - 100 MHz	dB	-0.5	-0.39	-
Return Loss (Sdd11 and Sdd22)	1 - 100 MHz	dB	-	-23.4	-20
Differential to Common Mode Rejection (Scd21)	1 - 100 MHz	dB	-	-37	-35
DC Resistance Balance	N/A	%	-	1.5	3.5

Recommended Maximum Ratings

Parameter	Value
Input power	At least 250mW
DC current	At least 450mA
Hi Pot	1500 Vrms
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

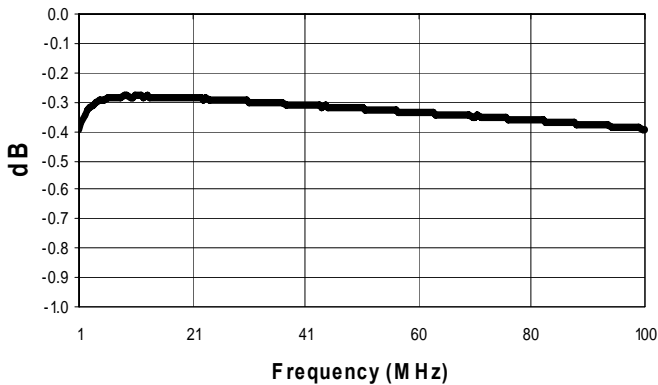
Note: Results for over temp performance are available upon request

Application Circuit

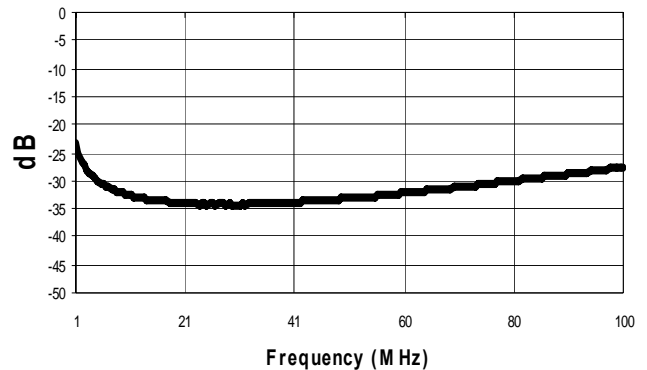


Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 50\Omega$, $P_{in} = 0\text{dBm}$

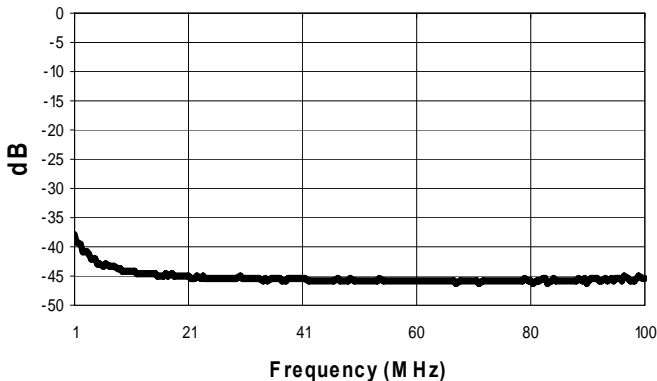
Insertion Loss: (Sdd21)



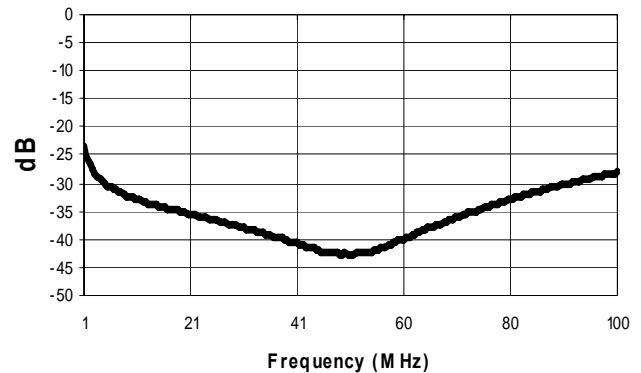
Return Loss: Input (Sdd11)



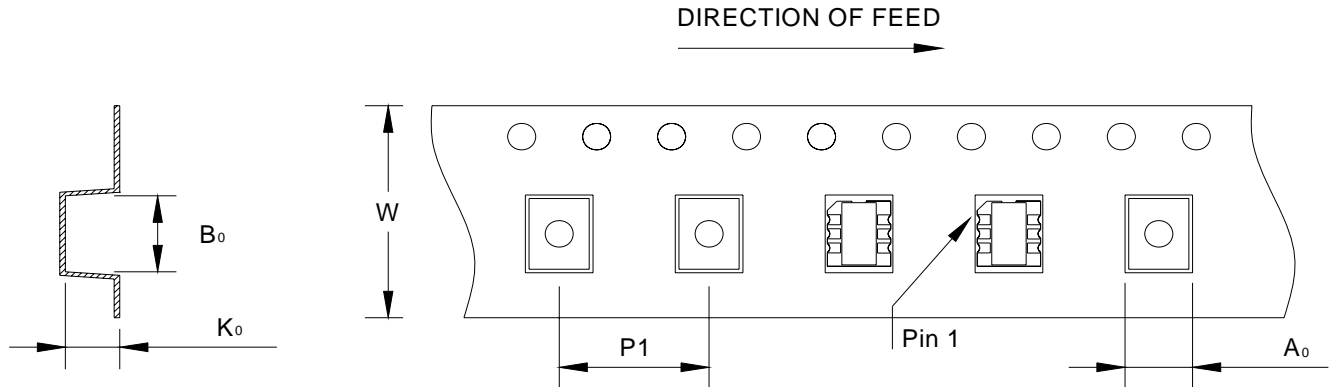
Differential to Common Mode Rejection (Scd21)



Return Loss: Output (Sdd22)



Tape & Reel Information



Item	Dimension
Ao	5.60mm +/- 0.1mm
Bo	6.70mm +/- 0.1mm
Ko	4.2mm +/- 0.1mm
W	16.0mm +/- 0.3mm
P1	12.00mm +/- 0.1mm

Ordering Information

Part number	Description
MABA-010051-CF1A41	900 piece reel
MABA-010051-CF1ATB	Customer Test Board