

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

Rev. V2

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



M/A-Com Technology Solutions MABA-010655-CF1A40 is a 10/100BASE-T Ethernet Transformer in a low cost, surface mount package.



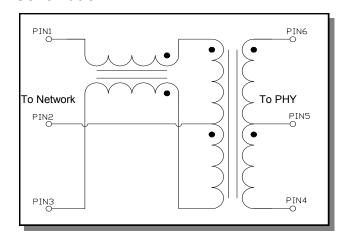
Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 50\Omega$, $P_{in} = 0$ dBm

Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss (Sdd21)	1 - 10 MHz 10 - 65 MHz 65 - 100 MHz	dB dB dB	-0.5 -0.5 -0.6	-0.20 -0.30 -0.43	- - -
Return Loss (Sdd11 and Sdd22)	1 - 100 MHz	dB	-	-30	-20
Differential to Common Mode Rejection (Scd21)	1 - 100 MHz	dB	-	-37	-35
DC Resistance Balance	N/A	%	-	1.5	3.5

Pin Configuration

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

Schematic



<u>Note:</u> Solderable area is underside of the carrier. Castellations will not show solder wetting

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology 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 M/A-COM Technology 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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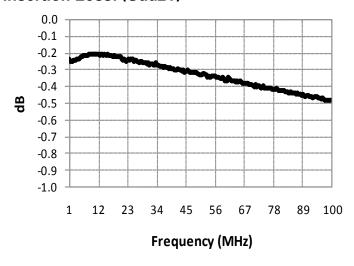
India Tel: +91.80.43537383
 China Tel: +86.21.2407.158i
 Visit www.macomtech.com for additional data sheets and product information.



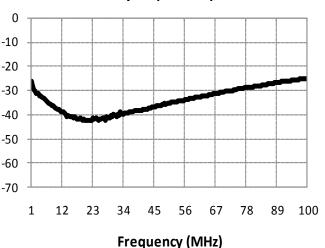
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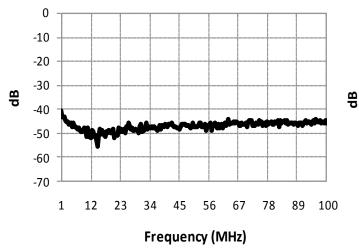
Insertion Loss: (Sdd21)



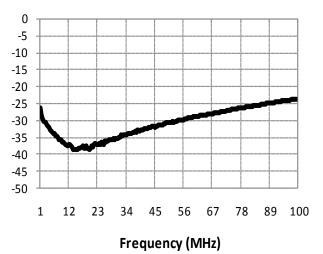
Return Loss: Input (Sdd11)



Differential to Common Mode Rejection (Scd21)



Return Loss: Output (Sdd22)



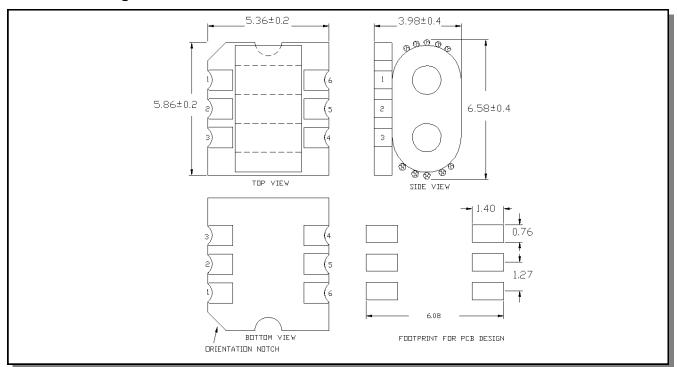
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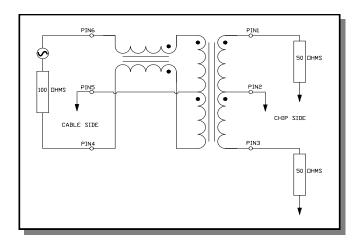
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Outline Drawing

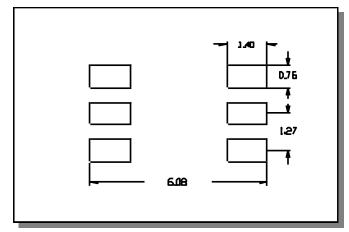


- Dimensions in mm.
- Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code printed on reel.
- 4. Plating finish: ENIG on both sides, 0.05 to 0.1 μm gold over 3 to 6 μm nickel

Application Circuit



Recommended Footprint



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Tape & Reel Information

Parameter	Units	Value	
Qty per reel	-	900	
Reel Size	mm	330	
Tape Width	mm	16.00	
Pitch	mm	8.00	
Ao	mm	5.70	
Во	mm	7.00	
Ko	mm	4.20	
Orientation	-	F46	
Reference Application Note ANI-019 for orientation			

Ordering Information

Part Number	Description	
MABA-010655-CF1A40	Tape & Reel	
MABA-010655-CF1ATB	Customer Evaluation Board	

Recommended Maximum Ratings

Parameter	Value	
Input power	250mW	
DC current	600mA	
Hi Pot	1500 Vrms	
Operating Temperature	-40°C to +110°C	
Storage Temperature	-55°C to +100°C	

Temperature data available on request

ECO History

Rev	Date	Description	ECO
V1	08/07/11	Created datasheet	CO-000884
V2	26/09/11	Optimised carrier tape	CO-002313