

Transformer, 1:1 Transmission Line Transformer 4.5 to 3000 MHz

Rev. V2

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

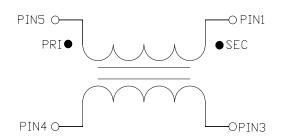
M/A-Com Technology Solutions MABA-007327-CT1A40 is a 1:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



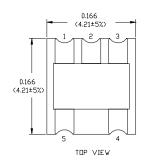
Pin Configuration

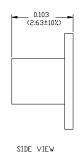
Pin no.	Function	
1	Secondary Dot	
2	Not connected	
3	Secondary	
4	Primary	
5	Primary Dot	

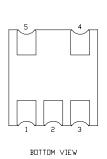
Schematic

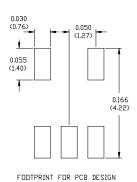


Component dimensions









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

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- North America Tel: 800.366.2266 Europe Tel: +353.21.244.6400
- India Tel: +91.80.43537383
- China Tel: +86.21.2407.1588

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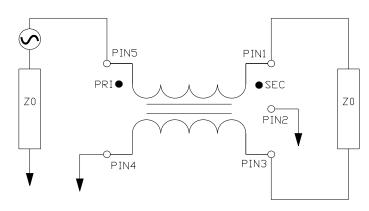
Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0$ dBm

Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss 1	4.5 - 1000MHz 1000 - 2000MHz 2000 - 3000 MHz	dB dB dB	- - -	0.8 1.6 2.5	1.0 2.0 3.5
Amplitude Balance (Nominal 0dB)	4.5 - 3000 MHz	dB	-	±0.50	±1.0
Phase Balance (Nominal 180°)	4.5 - 3000 MHz	0	-	±10.0	±20.0

Recommended Maximum Ratings

Parameter	Value
Input power	At least 250mW
DC current	At least 30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

Application Circuit



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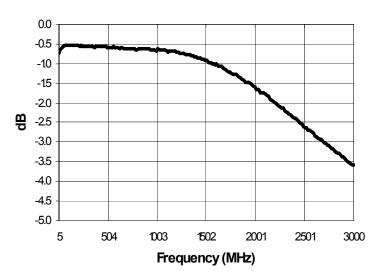


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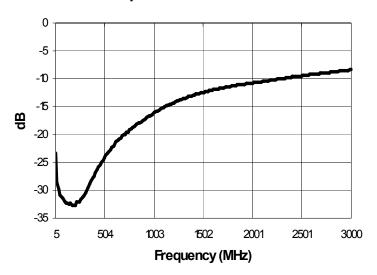
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Typical Performance Curves: $T_A = 25^{\circ}C$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0dBm$

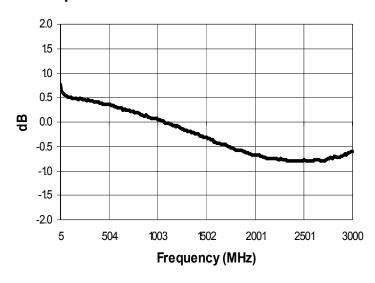
Insertion Loss



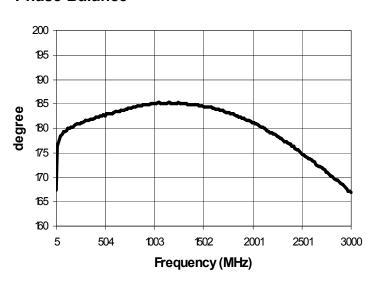
Return Loss: Input



Amplitude Balance



Phase Balance



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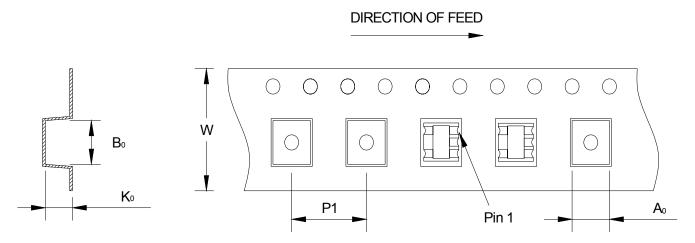
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Tape & Reel Information



Item	Dimension		
Ao	4.50mm +/- 0.1mm		
Во	4.50mm +/- 0.1mm		
Ko	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

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