

# Transformer, 1:2 Transmission Line Balun 5 MHz - 1200 MHz

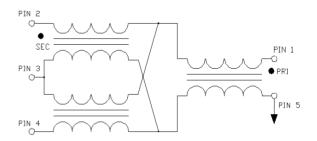
Rev. V3

#### **Features**

- 1:2 impedance ratio
- Transmission line Transformer
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- RoHS Compliant and Pb free
- Excellent temperature stability
- Can be used on 50Ω and 75Ω systems



#### **Schematic**



### **Pin Configuration**

Pin No.	Function	
1	Input (PRI dot)	
2	Output 1 (SEC dot)	
3	Centre tap (RF Ground)	
4	Output 2 (SEC)	
5	5 Ground (PRI)	

### **Ordering Information**

Part Number	Description
MABA-011029	Tape & Reel
MABA-011029-TB	Customer Evaluation Board



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

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		1200
Impedance		Ω		75	
Impedance Ratio				1:2	
Insertion Loss 1 (Pin 1 to pin 2)	5 - 50 MHz 50 - 400 MHz 400 -1000 MHz 1000 -1200 MHz	dB dB dB dB	- - - -	0.30 0.50 0.90 1.60	0.40 0.80 2.00 2.70
Insertion Loss 2 (Pin 1 to pin 4)	5 - 50 MHz 50 - 400 MHz 400 -1000 MHz 1000 -1200 MHz	dB dB dB dB	- - - -	0.50 0.70 1.50 2.40	0.60 1.20 3.00 3.90
Amplitude Balance	5 - 50 MHz 50 - 400 MHz 400 -1200 MHz		-0.30 -0.90 -2.20	0.10 0.20 0.50	0.30 0.90 2.20
Phase Balance 5 - 50 MHz 50 - 400 MHz 400 -1000 MHz		o o o	-2.0 -6.0 -9.0	0.20 0.70 0.50	2.0 6.0 9.0
Input Return Loss (Pin 1)	5 - 50 MHz 50 - 400 MHz 400 -1000 MHz 1000 -1200 MHz	dB dB dB dB	20 18 9 7	27 28 16 12	- - -

### **Tape & Reel Information**

### **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		600
Operating Temperature Range	°C	-40	+85

Temperature data available on request

Parameter	Units	Value		
Qty per reel	-	900		
Reel Size	mm	330		
Tape Width	mm	16.00		
Pitch	mm	12.00		
Ao	mm	6.70		
Во	mm	7.50		
Ko	mm	3.60		
Orientation	-	F33		
Reference Application Note ANI-019 for orientation				



**Recommended Footprint** 

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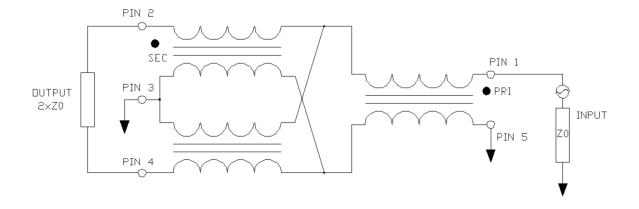
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#### **Outline Drawing**

### 3.0 ORIENTATION DOT 6.35 4.08 **-**1.64<del>-</del>4 -5.08 TOP VIEW END VIEW 2,40 3.18 RECOMENDED FOOTPRINT 3.18 1.00 DRIENTATION DOT BOTTOM VIEW

- 1. Dimensions in mm.
- 2. 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

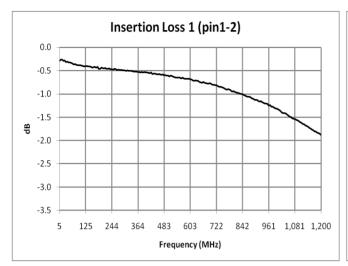
### **Application Circuit**

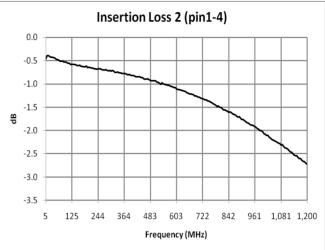


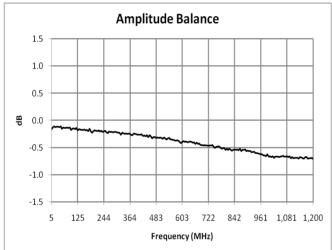


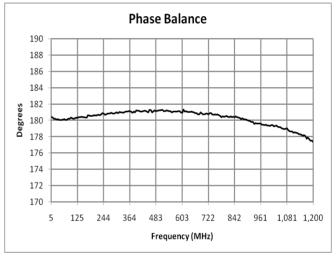
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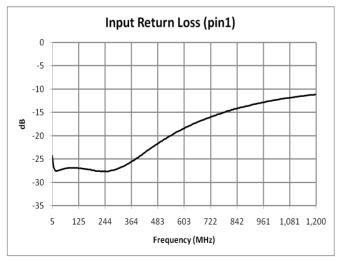
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# MABA-011029



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Rev. V3

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