

1:2 Transformer 5 – 300 MHz

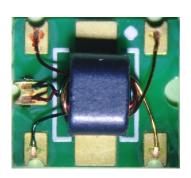
Rev. V3

### **Features**

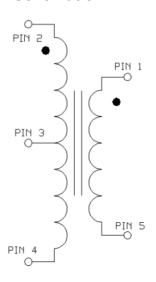
- 1:2 impedance
- Surface mount
- Available on tape and reel
- 260° reflow compatible
- RoHS compliant and Pb free
- · Excellent temperature stability
- Suitable for all CATV, Broadband and FTTX applications.



MACOM's MABA-011050 is a 1:2 transformer. This transformer is ideally suited for CATV Broadband applications.



#### **Functional Schematic**



### **Ordering Information**

Part Number	Package
MABA-011050	Tape & Reel
MABA-011050-TB	Customer test board

### **Pin Configuration**

Pin No.	Function
1	Primary Dot (input)
2	Secondary Dot (output 1)
3	Centre tap (RF ground)
4	Secondary (output 2)
5	Primary (ground)



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

Parameter	Conditions	Units	Min	Тур	Max
Frequency Range		MHz	5		300
Impedance				75	
Impedance Ratio				1:2	
Insertion Loss 1 (Pin1 - Pin2)	5 - 150 MHz 150 - 300 MHz	dB dB	-	0.6 0.8	0.8 1.0
Insertion Loss 2 (Pin1 - Pin4)	5 - 300 MHz	dB	-	0.5	0.7
Amplitude Balance	5 - 150 MHz 150 - 300 MHz	dB dB	-	0.1 0.2	0.2 0.5
Phase Balance (Ref value 180°)	5 - 150 MHz 150 - 300 MHz	0	-	0.06 0.1	1.0 2.5
Input Return Loss (Pin1)	5 - 150 MHz 150 - 300 MHz	dB dB	18 16	19 18	

### **Recommended Maximum Ratings**

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		600
Operating Temperature Range	°C	-40	+125

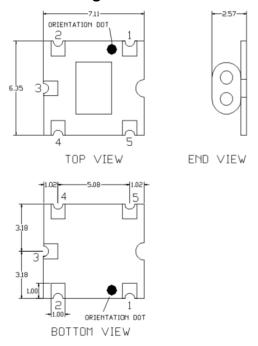
Full temperature plots available on request



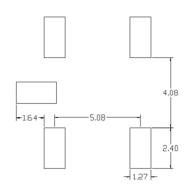
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## **Outline Drawing**



## **PCB Layout**



- Dimensions in mm.
- 2. Tolerance: ±0.2mm unless otherwise noted.
- 3. Model number and lot code are printed on the reel.
- Lead plating: ENIG.

**Tape & Reel Information** 

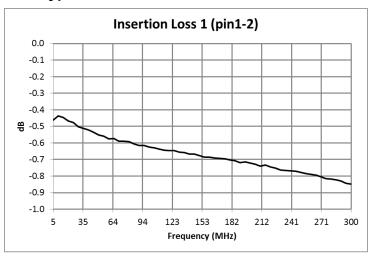
Parameter	Units	Value	
Qty per reel	-	900	
Reel Size	mm	330	
Tape Width	mm	16.00	
Pitch	mm	12.00	
Ao	mm	6.60	
Во	mm	7.40	
Ko	mm	2.90	
Orientation	-	F33	
Reference Application Note ANI-019 for orientation			

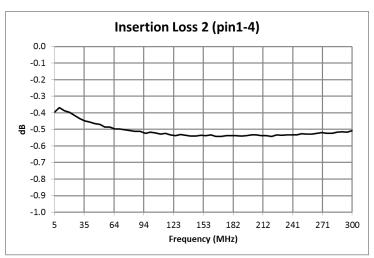


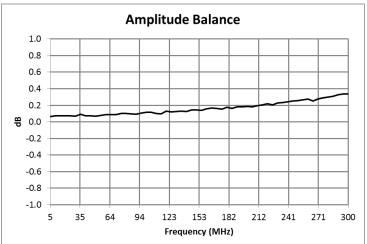
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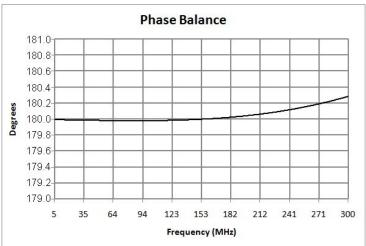
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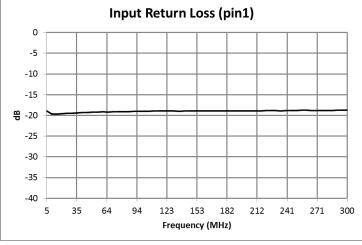
### **Typical Performance Curves**

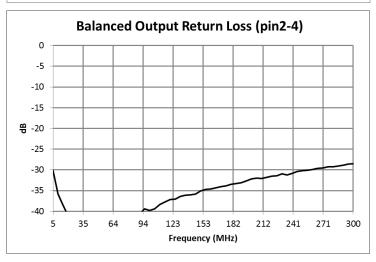












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