MABA-009274-TC11T2

E-Series RF 1:1 Transformer 0.1 - 200 MHz

Features

- 1:1 Impedance Ratio
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS compliant and Pb Free

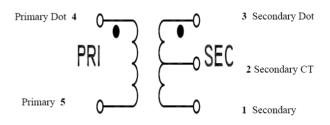
Description

MABA-009274-TC11T2 is a RoHS Compliant 1:1 RF flux coupled transformer in a low cost, surface mount package. Typical applications include single to balanced mode conversion.

The MABA-009274-TC11T2 is available in a SM-22 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.



Schematic



Ordering Information

Part Number	Package
MABA-009274-TC11T2	2000 piece reel

Pin Configuration

Pin No.	Function	
1	Secondary	
2	Secondary CT	
3	Secondary Dot	
4	Primary Dot	
5	Primary	

Electrical Specifications: Freq. = 0.1 - 200 MHz, $T_A = 25^{\circ}C$, $Z_0 = 50 \Omega$

Parameter	Units	Min.	Тур.	Max.
Insertion Loss	dB	—	—	1.2
Amplitude Imbalance	dB	_	_	0.6
Phase Imbalance	Degrees	_	_	5
Input Return Loss	dB	33	20	9

¹

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.

MACOM

Rev. V3

MABA-009274-TC11T2



E-Series RF 1:1 Transformer 0.1 - 200 MHz

Rev. V3

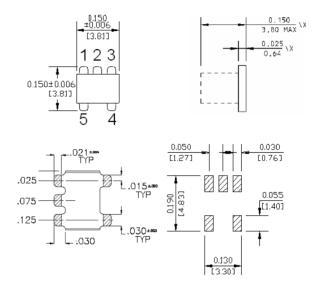
Absolute Maximum Ratings

Parameter	Absolute Maximum	
RF Power	250 mW	
DC Current	240 mA ²	
Operating Temperature	-40°C to +85°C	
Storage Temperature	-55°C to +125°C	

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

 MACOM does not recommend sustained operation near these survivability limits.

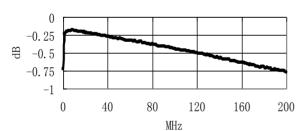
SM – 22 Package



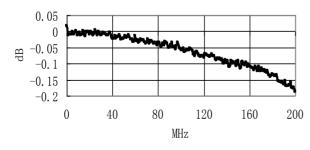
 Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

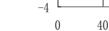
Typical Performance Curves at +25°C

Insertion Loss



Amplitude Balance





Phase Balance

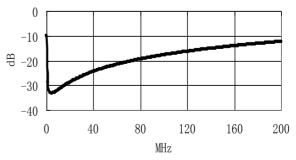
-1

-2

-3

Degree

Input Return Loss



80

MHz

120

160

200

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.

2

MABA-009274-TC11T2



E-Series RF 1:1 Transformer 0.1 - 200 MHz

Rev. V3

MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

³

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. Visit <u>www.macom.com</u> for additional data sheets and product information.