

E-Series RF 1:3 Transformer 2 - 500 MHz

Rev. V4

Features

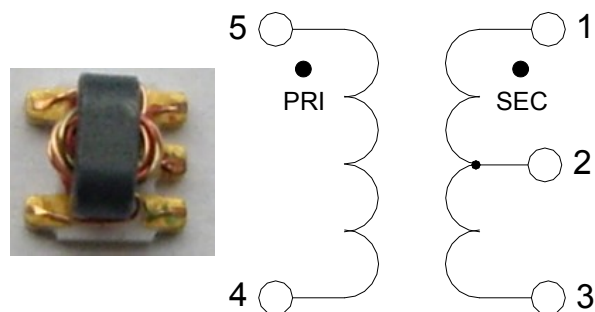
- 1:3 Impedance Ratio
- Surface Mount Package
- Tape and Reel Packaging Available
- RoHS* Compliant & 260°C Reflow Compatible

Description

The MABA-009484-ETC31T is a RoHS compliant 1:3 RF flux coupled transformer in a surface mount package (SM-22).

Typical applications include single to balanced mode conversion.

Schematic



Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary Dot	4	Primary
2	Secondary CT	5	Primary Dot
3	Secondary		

Electrical Specifications: Freq. = 2 - 500 MHz, $T_A = 25^\circ\text{C}$, $Z_0 = 50\ \Omega$, $P_{IN} = 0\ \text{dBm}$

Parameter	Freq. Test Conditions (MHz)	Units	Min.	Typ.	Max.
Insertion Loss	2 - 500 5 - 300	dB	—	0.7 0.6	2 1
Amplitude Balance	2 - 500	dB	—	0.3	1
Phase Balance	2 - 500	°	—	—	1
Input Return Loss	2 - 400 400 - 500	dB	20 16	27 18	30 25

Ordering Information

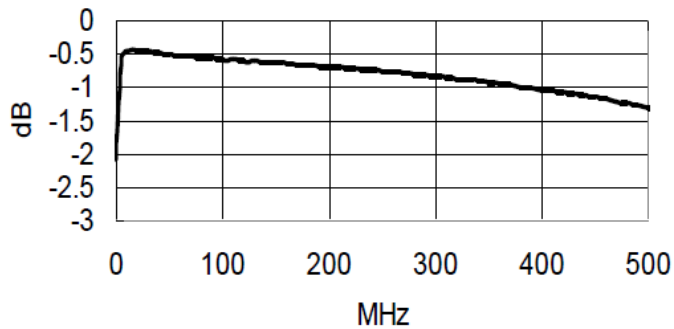
Parameter	Package
MABA-009484-ETC31T	2000 piece reel

Absolute Maximum Ratings

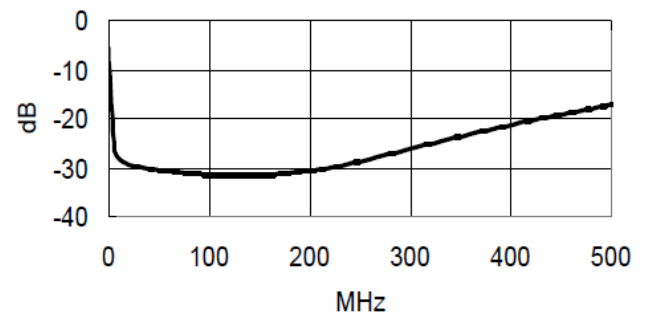
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	50 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Typical Performance Curves

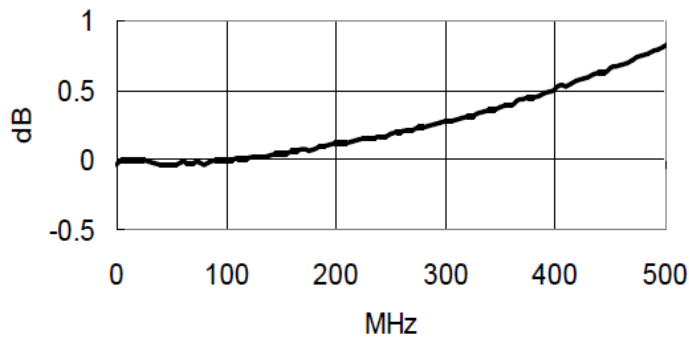
Insertion Loss



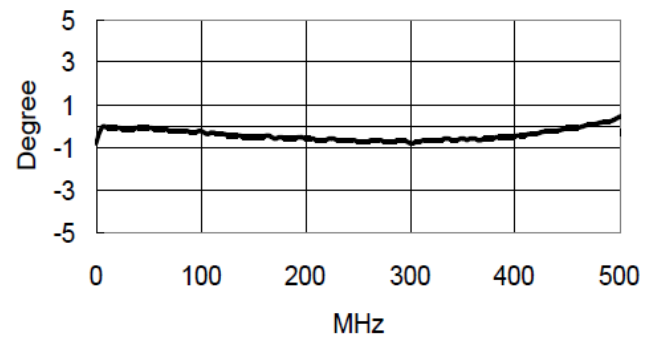
Input Return Loss



Amplitude Balance



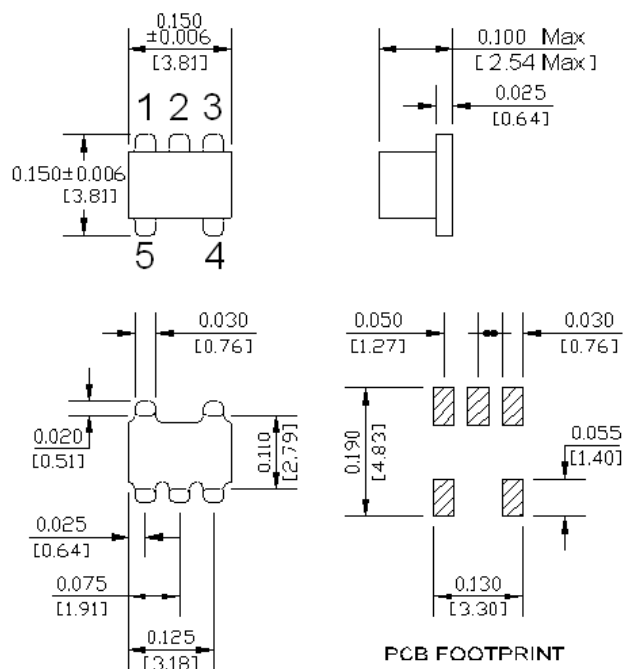
Phase Balance



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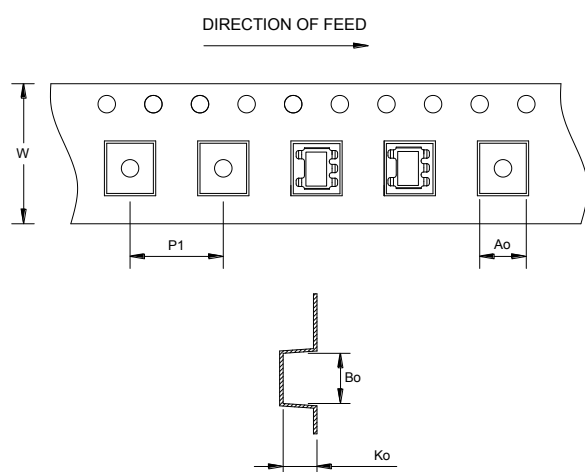
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Outline Drawing



Dimensions are inches (millimeters) ± 0.015 (0.38) unless otherwise specified.
Drawing not to scale.

Tape & Reel Information



Dimensions

Item	Dimension (mm)
A _o	4.00 +/-0.1
B _o	4.00 +/-0.1
K _o	2.90 +/-0.1
W	12.00 +/-0.3
P1	8.00 +/-0.1

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