

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

Rev. V3

Features

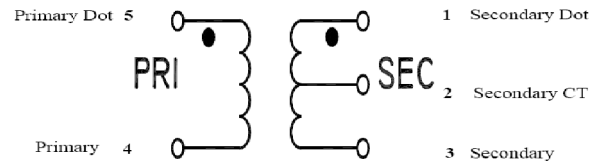
- 1:3 Impedance Ratio
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant

Description

M/A-COM's MABA-009484-ETC31T is a RoHS Compliant 1:3 RF flux coupled transformer in a low cost, surface mount package. Typical applications include single to balanced mode conversion.

The MABA-009484-ETC31T 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.

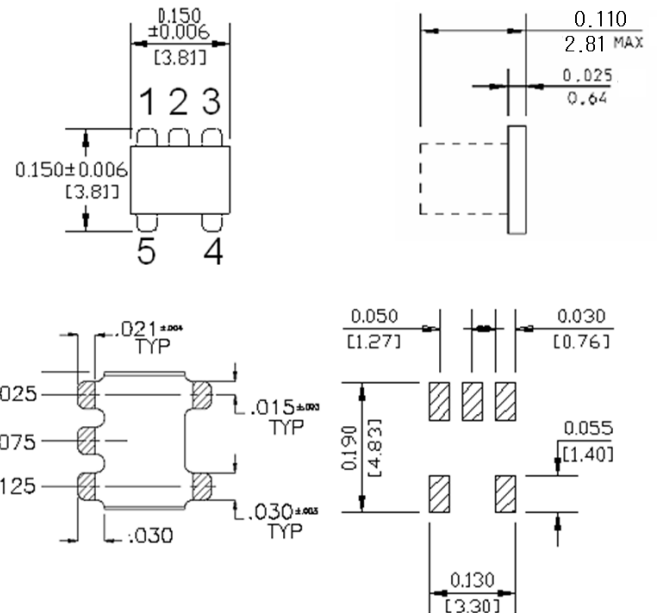
Schematic



Product Image



SM – 22 Package



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

Pin Configuration

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

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	2 - 500	MHz	—	—	—
Insertion Loss	—	2 - 500 5-300	dB dB	— —	0.7 0.6	2 1
Amplitude Imbalance	—	2 - 500	dB	—	0.3	1
Phase Imbalance	—	2 - 500	Degrees	—	—	1
Input Return Loss	—	2 - 400 400-500	dB dB	20 16	27 18	30 25

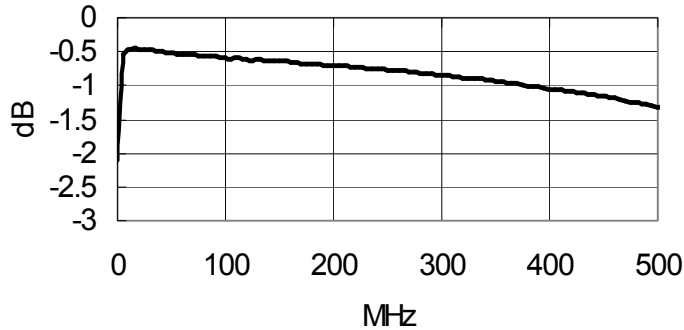
Absolute Maximum Ratings ^{1,2}

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

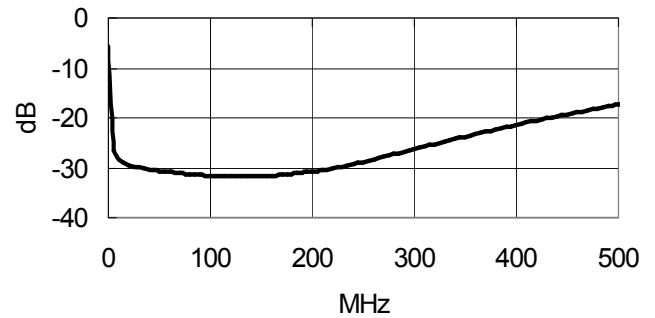
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Typical Performance Curves

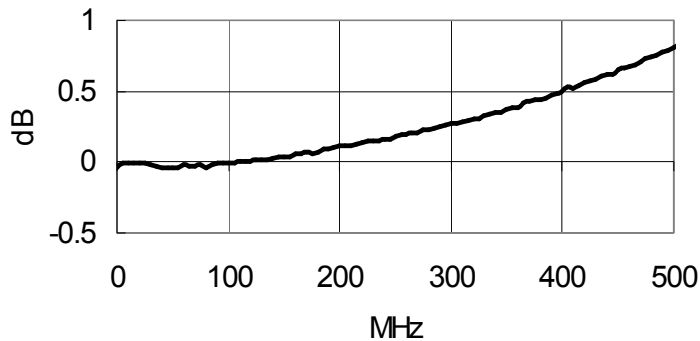
Insertion Loss



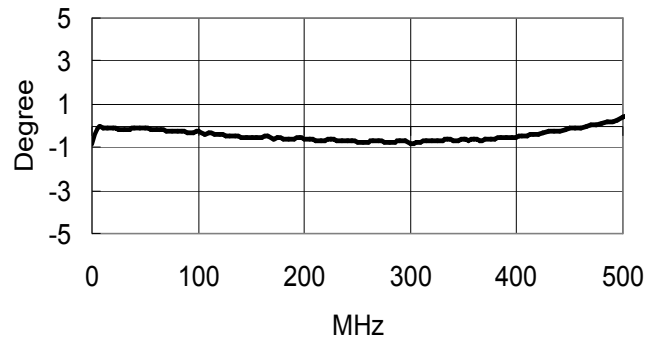
Input Return Loss



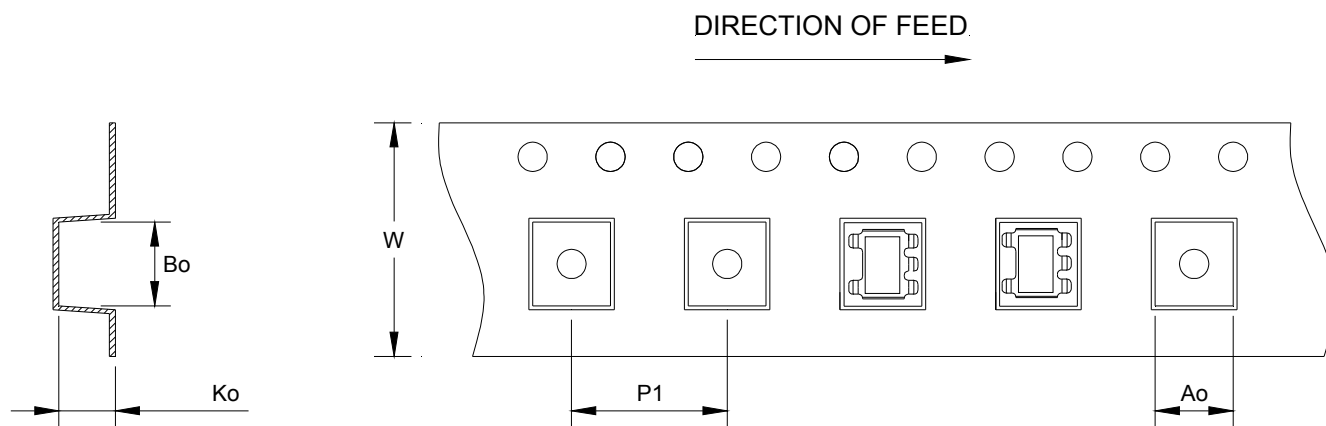
Amplitude Balance



Phase Balance



Tape & Reel Information



Item	Dimension
Ao	4.00mm +/-0.1mm
Bo	4.00mm +/-0.1mm
Ko	2.9mm +/-0.1mm
W	12.00mm +/-0.3mm
P1	8.00mm +/-0.1mm

Ordering Information

Part Number	Package
MABA-009484-ETC31T	Tape and Reel (2000 piece Reel)