

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

Rev. V1

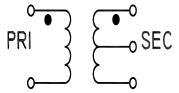
#### **Features**

- 1:1 Impedance Ratio
- Surface Mount
- Tape and reel packaging available

#### **Description**

M/A-COM's ETC1-1T-2 is a 1:1 RF transformer in a low cost, surface mount package. Typical applications include single to balanced mode conversion and impedance matching. Parts are packaged in tape & reel.

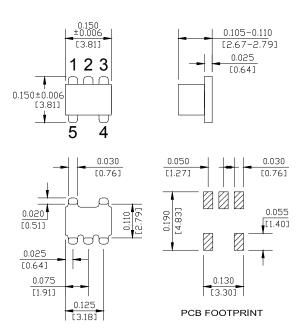
#### **Schematic**



#### **Product Image**



#### SM-22 package



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

## **Pin Configuration**

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

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

Solutions has under development. Performance is based on argineering tests, operations are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not quaranteed.

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 Visit www.macomtech.com for additional data sheets and product information.

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Electrical Specifications:  $T_A = 25$ °C,  $Z_0 = 50\Omega$ 

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
RF Frequency	_	0.1 - 200	MHz	_	_	_
Insertion Loss	_	0.1 - 200	dB	_	0.3	1.5
Amplitude Imbalance	_	0.1 - 200	dB	_	_	0.5
Phase Imbalance	_	0.1 - 200	Degrees	_	_	5°

## Absolute Maximum Ratings <sup>1</sup>

Parameter	Absolute Maximum
RF Power	250 mW
DC Current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Operation of this device above any one of these parameters may cause permanent damage.

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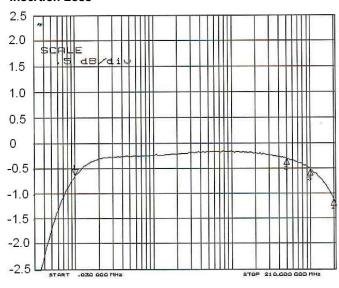


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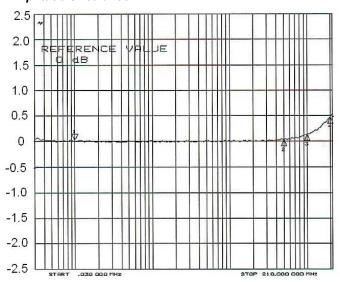
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### **Typical Performance Curves**

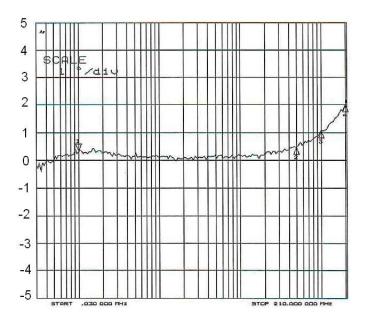
#### Insertion Loss



#### Amplitude Unbalance



#### Phase Unbalance



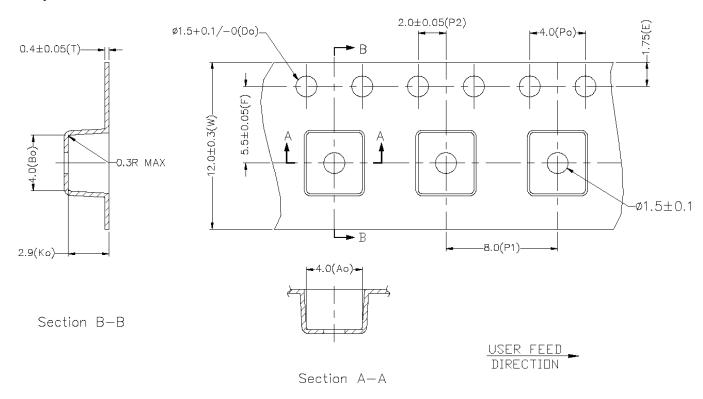
<sup>•</sup> North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400



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### **Tape & Reel Information**



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

#### **Ordering Information**

Part Number	Package	
ETC1-1T-2TR	2000 piece reel	

- 1. Reference Application Note M513 for reel size information.
- 2. All sample boards include 5 loose parts.

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