MABA-009484-ETC31T



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

Rev. V4

Features

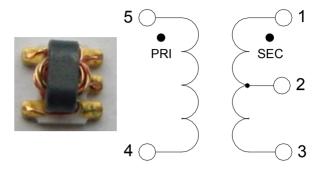
- 1:3 Impedance Ratio
- Surface Mount Package
- Tape and Reel Packaging Available
- RoHS* Compliant & 260°C Reflow Compatible

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, $T_A = 25$ °C, $Z_0 = 50 \Omega$, $P_{IN} = 0 \text{ dBm}$

| Parameter | Freq. Test Conditions (MHz) | Units | Min. | Тур. | 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 | 0 | | _ | 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 | |

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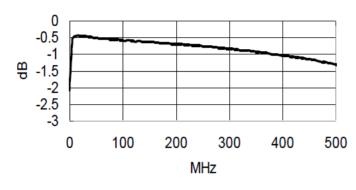


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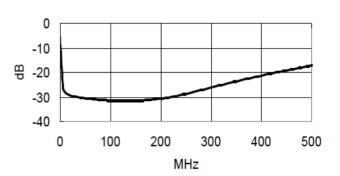
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Typical Performance Curves

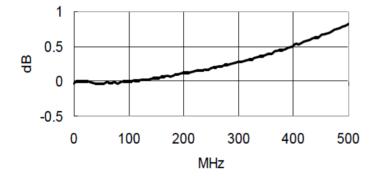
Insertion Loss



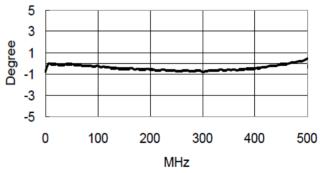
Input Return Loss



Amplitude Balance



Phase Balance

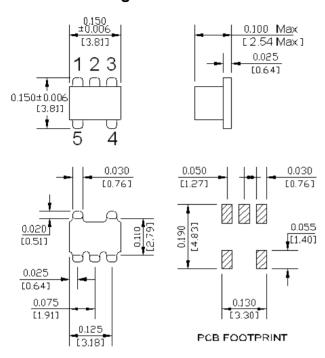




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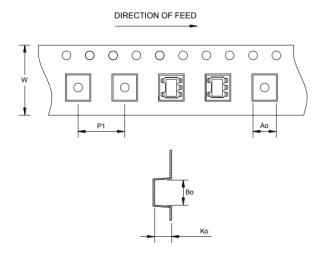
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Outline Drawing



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

Tape & Reel Information



Dimensions

| Item | Dimension (mm) |
|------|----------------|
| Ao | 4.00 +/-0.1 |
| Bo | 4.00 +/-0.1 |
| Ko | 2.90 +/-0.1 |
| W | 12.00 +/-0.3 |
| P1 | 8.00 +/-0.1 |

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