

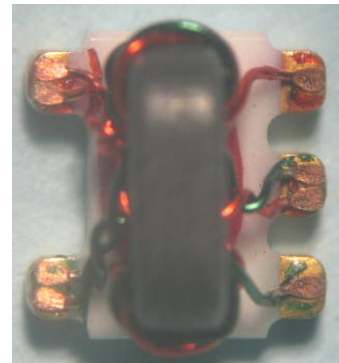
## Features

- Surface mount
- 1:4 Impedance Ratio
- RoHS\* Compliant
- Pb Free
- 260°C reflow compatible.
- Available on Tape and Reel

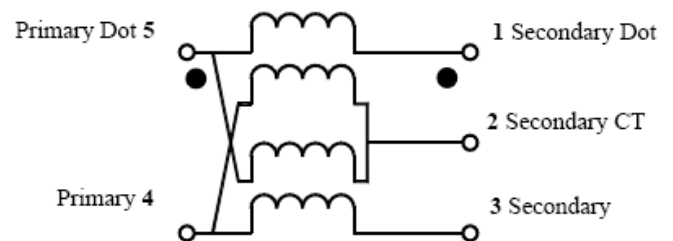
## Description

MABA-008639-TC41T7 is a wire welded RoHS version of ETC4-1T-7. This 1:4 RF transformer is assembled in a low cost, surface mount package.

Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.



## Schematic



## Ordering Information

| Part Number        | Package         |
|--------------------|-----------------|
| MABA-008639-TC41T7 | 2000 piece reel |

## 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 2011/65/EU.

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

| Parameter           | Frequency      | Units | Min | Typ | Max |
|---------------------|----------------|-------|-----|-----|-----|
| Insertion Loss      | 6 - 600 MHz    | dB    | —   | —   | 2.0 |
|                     | 600 - 1000 MHz |       |     |     | 3.0 |
| Amplitude Unbalance | 6 - 1000 MHz   | dB    | —   | —   | 1.0 |
| Phase Unbalance     | 6 - 1000 MHz   | °     | —   | —   | 10  |

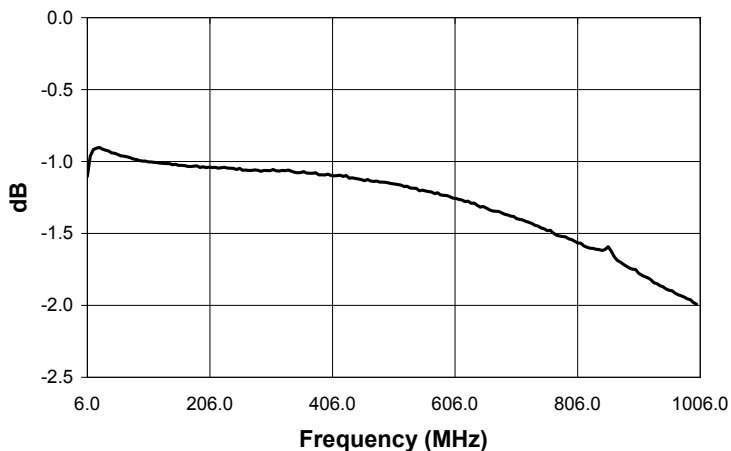
**Recommended Maximum Ratings<sup>1,2</sup>**

| Parameter             | Value           |
|-----------------------|-----------------|
| RF Power              | 250 mW          |
| DC Current            | 30 mA           |
| Operating Temperature | -40°C to +85°C  |
| Storage Temperature   | -55°C to +100°C |

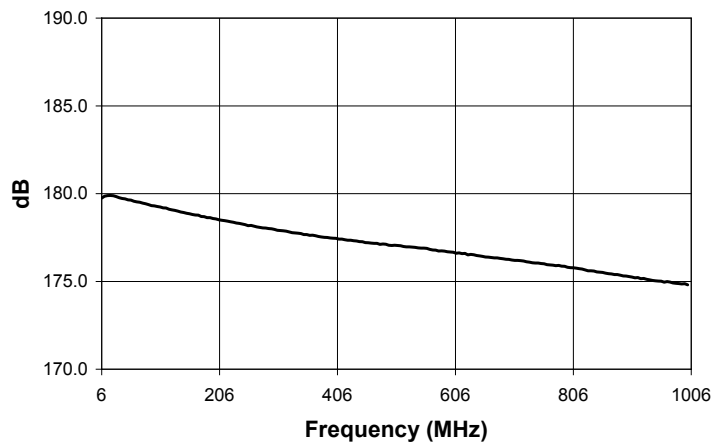
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

## Typical Performance Curves

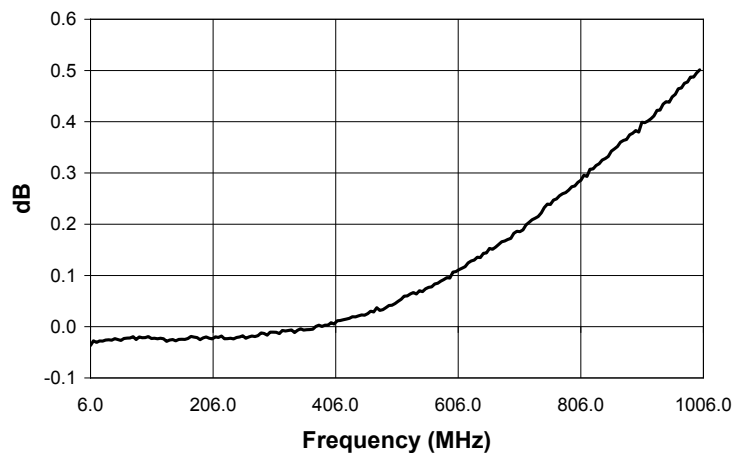
**Insertion Loss**



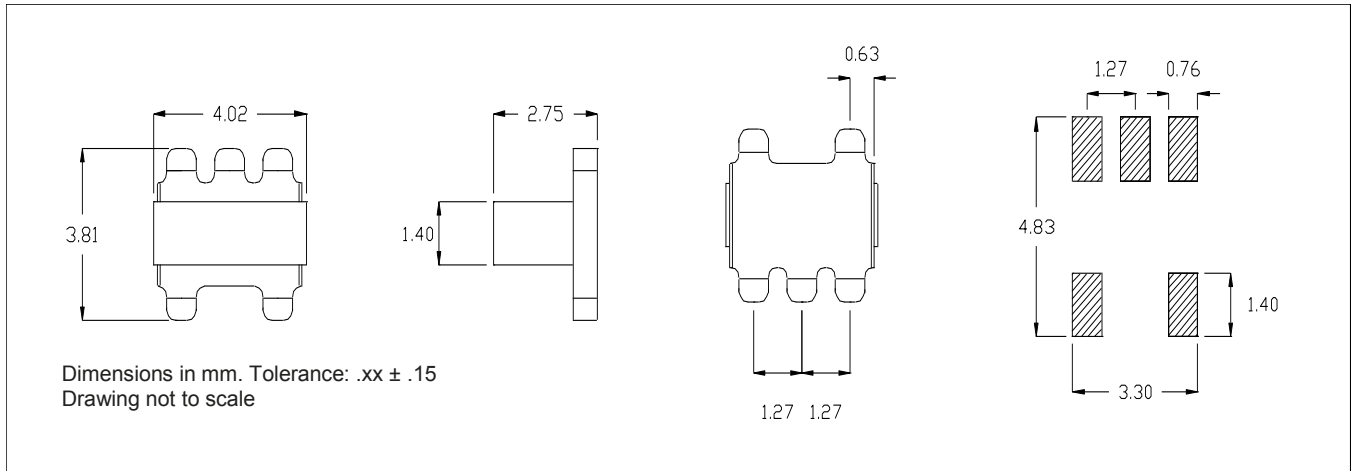
**Phase Unbalance**



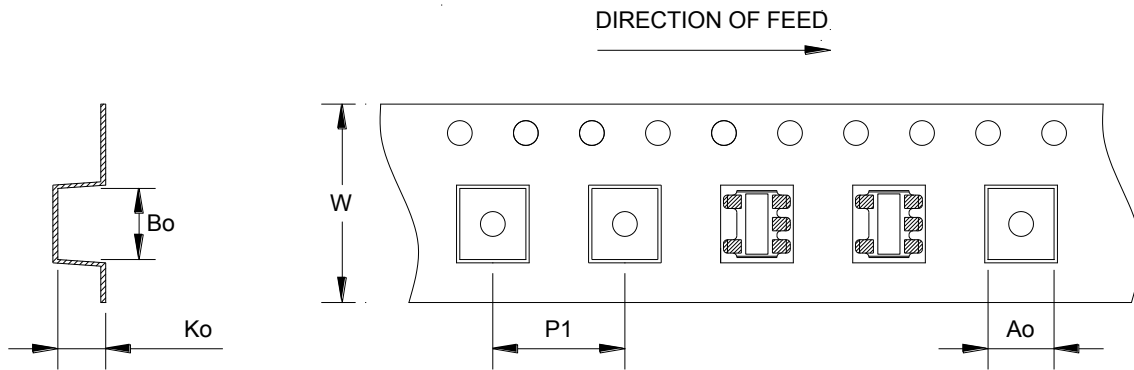
**Amplitude Unbalance**



## Component Dimensions



## Tape & Reel Information



| Item | Dimension        |
|------|------------------|
| Ao   | 4.00mm +/-0.1mm  |
| Bo   | 4.30mm +/-0.1mm  |
| Ko   | 2.90mm +/-0.1mm  |
| W    | 12.00mm +/-0.3mm |
| P1   | 8.00mm +/-0.1mm  |