

**4:1 step down Flux Coupled Transformer  
5-200MHz**

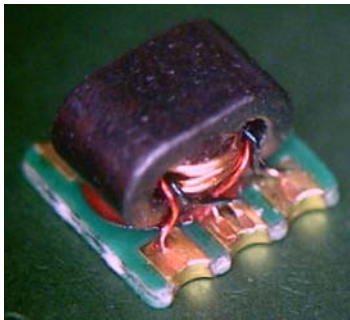
**MABA-008354-CF4A40  
V1**

**Features**

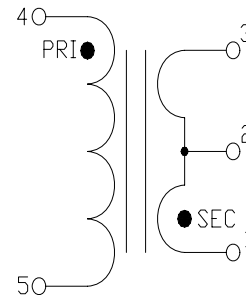
- Surface Mount
- 4:1 step-down Flux Coupled
- 260°C Reflow Compatible
- RoHS\* Compliant
- All wires are welded to the PCB carrier
- Available on Tape and Reel. Reel quantity 2000

**Description**

M/A-COM's MABA-008354-CF4A40 is a 4:1 Flux Coupled step down transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems



**Schematic**



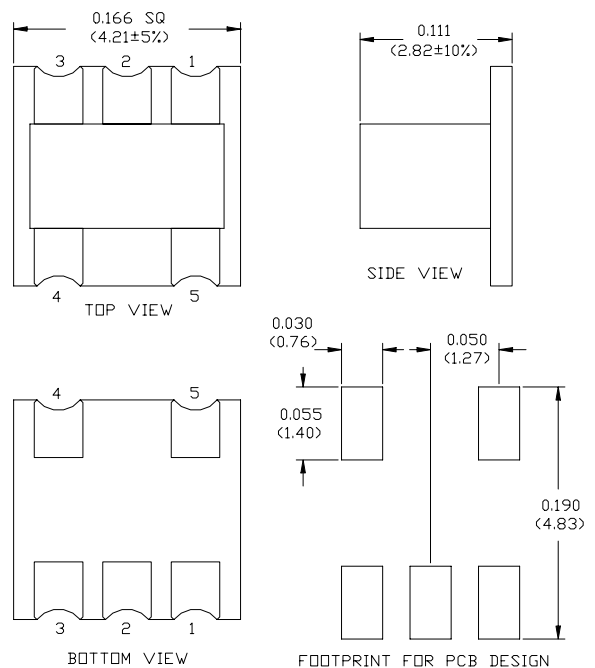
**Pin Configuration**

| Pin No. | Function                 |
|---------|--------------------------|
| 1       | Secondary Dot (output 1) |
| 2       | Centre Tap               |
| 3       | Secondary (output 2)     |
| 4       | Primary Dot (input)      |
| 5       | Primary (ground)         |

**Ordering Information**

| Part Number        | Package             |
|--------------------|---------------------|
| MABA-008354-CF4A40 | 2000                |
| MABA-008354-CF4ATB | Customer Test Board |

**Case Style: SM-164**



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Note: Reference Application Note **M513** for reel size information.

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

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Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

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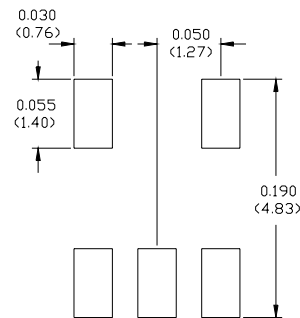
**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>**

| Parameter         | Frequency    | Units    | Min | Typ        | Max       |
|-------------------|--------------|----------|-----|------------|-----------|
| Insertion Loss    | 5 - 35 MHz   | dB       | -   | 0.8        | 1.1       |
|                   | 35 - 85 MHz  | dB       | -   | 1.1        | 1.6       |
|                   | 85-200 MHz   | dB       | -   | 2.2        | 3.6       |
| Amplitude Balance | 5 - 85 MHz   | dB       | -   | $\pm 0.01$ | $\pm 0.4$ |
|                   | 85 - 200 MHz | dB       | -   | $\pm 0.09$ | $\pm 0.8$ |
| Phase Balance     | 5 - 85 MHz   | $^\circ$ | -   | $\pm 0.2$  | $\pm 4$   |
|                   | 85 - 200 MHz | $^\circ$ | -   | $\pm 0.4$  | $\pm 5$   |
| Input Return Loss | 5 - 35 MHz   | dB       | 15  | 19         | -         |
|                   | 35 - 85 MHz  | dB       | 10  | 13         | -         |
|                   | 85 - 200 MHz | dB       | 5   | 8          | -         |

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

| Parameter             | Absolute Maximum |
|-----------------------|------------------|
| Max RF Power          | 1W               |
| Max DC current        | 250mA per arm    |
| Operating Temperature | -40°C to +60°C   |
| Storage Temperature   | -40°C to +85°C   |

**Recommended PCB Configuration**



FOOTPRINT FOR PCB DESIGN

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.

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Typical Performance Curves:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 75\Omega$  <sup>1</sup>

