## Features

- Surface Mount
- 2.56:1 Impedance
- $260^{\circ} \mathrm{C}$ Reflow Compatible
- RoHS* Compliant
- RoHS version of MABAES0017
- Available on Tape and Reel. Reel quantity 2000


## Description

M/A-COM's MABA-007902-CF38A0 is a 2.56:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.


## Pin Configuration

| Pin No. | Function |
| :---: | :---: |
| 1 | Secondary Dot |
| 2 | Centre Tap |
| 3 | Secondary |
| 4 | Primary |
| 5 | Primary Dot |

## Schematic



Case Style: SM-138


Dimensions in mm [inches] Tolerance: . $x x \pm .02, . x x x \pm .010$

## Ordering Information

| Part Number | Package |
| :---: | :---: |
| MABA-007902-CF38A0 | 2000 piece reel |
| MABA-007902-CF38TB | Customer Test Board |

[^0]* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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[^1]Visit www.macom.com for additional data sheets and product information.

Electrical Specifications: $\mathrm{T}_{\mathrm{A}}=\mathbf{2 5 ^ { \circ }} \mathrm{C}, \mathrm{Z}_{0}=\mathbf{7 5} \Omega$

| Parameter | Test Conditions | Units | Min | Typ | Max |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Insertion Loss | $5-65 \mathrm{MHz}$ | dB | - | 0.8 | 1.0 |
| Amplitude Unbalance (Nominal OdB) | $5-65 \mathrm{MHz}$ | dB | - | $\pm 0.02$ | $\pm 0.1$ |
| Phase Unbalance (Nominal $180^{\circ}$ ) | $5-65 \mathrm{MHz}$ | $\circ$ | - | $\pm 0.2$ | $\pm 1.0$ |

## Absolute Maximum Ratings ${ }^{1,2}$

| Parameter | Absolute Maximum |
| :---: | :---: |
| RF Power | 250 mW |
| DC current | 30 mA |
| Operating Temperature | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Storage Temperature | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |

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.

Recommended PCB Configuration


Typical Performance Curves: $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}, \mathrm{Z}_{0}=\mathbf{7 5 \Omega}$

Insertion Loss 1 (pin 5 to pin 3)


Amplitude Unbalance


Insertion Loss 2 (pin 5 to pin 1)


Phase Balance



[^0]:    Note: Reference Application Note M513 for reel size information.

[^1]:    - North America Tel: 800.366.2266 / Fax: 978.366.2266
    - Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
    - Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

