

# MABA-007819-CF48A0



4:1 RF Flux Coupled Transformer  
5-200MHz

Final- Rev. V1

## Features

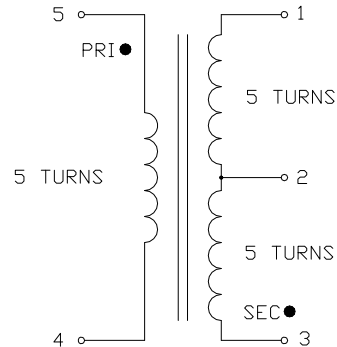
- n Surface Mount
- n 4:1 Impedance
- n 260°C Reflow Compatible
- n RoHS\* Compliant
- n RoHS version of MABACT0018
- n Available on Tape and Reel. Reel quantity 2000

## Description

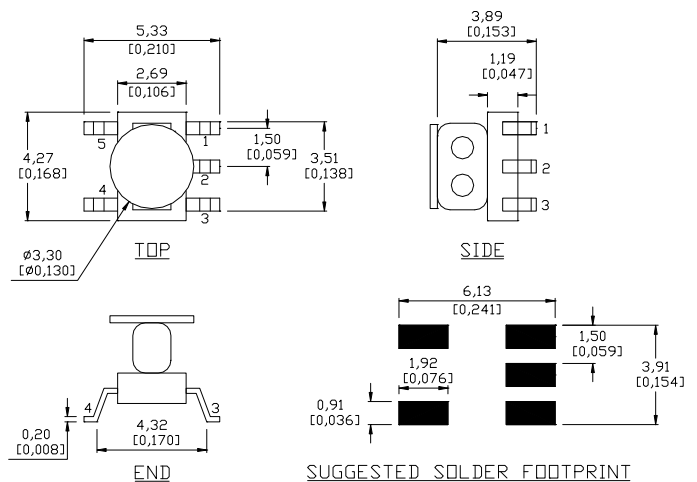
M/A-COM's MABA-007819-CF48A0 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.



## Schematic



## Case Style: SM-138-A



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

## Pin Configuration

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

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

## Ordering Information

Part Number	Package
MABA-007819-CF48A0	2000 piece reel
MABA-007819-CF48TB	Customer Test Board

<sup>1</sup> \* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

**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 typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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## Electrical Specifications: $T_A = 25^\circ\text{C}$

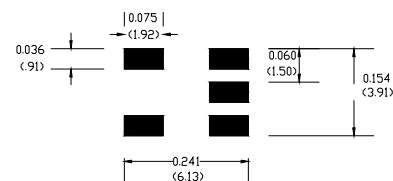
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 65 MHz	dB	-	0.4	0.7
	65 - 200 MHz	dB	-	0.9	1.5
Amplitude Unbalance	5 - 65 MHz	dB	-	$\pm 0.02$	$\pm 0.1$
	65 - 200 MHz	dB	-	$\pm 0.2$	$\pm 0.5$
Phase Unbalance	5 - 65 MHz	$^\circ$	-	$\pm 0.4$	$\pm 2.0$
	65 - 200 MHz	$^\circ$	-	$\pm 2.0$	$\pm 8.0$
Input Return Loss	5 - 65 MHz	dB	15	22	-
	65 - 200 MHz	dB	7	11	-

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

Parameter	Absolute Maximum
RF Power	50mW
Peak IF Current	200mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

## Recommended PCB Configuration



SUGGEST SOLDER FOOTPRINT

# MABA-007819-CF48A0

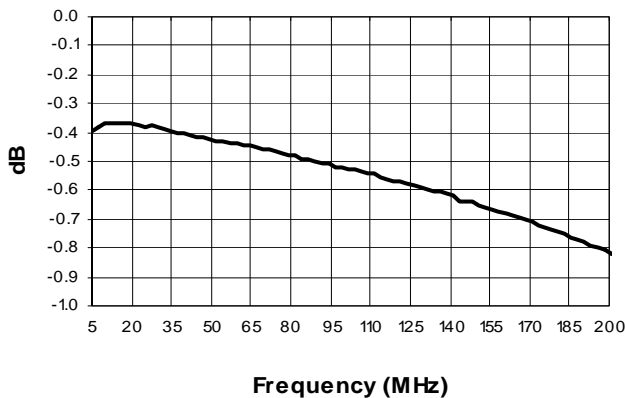


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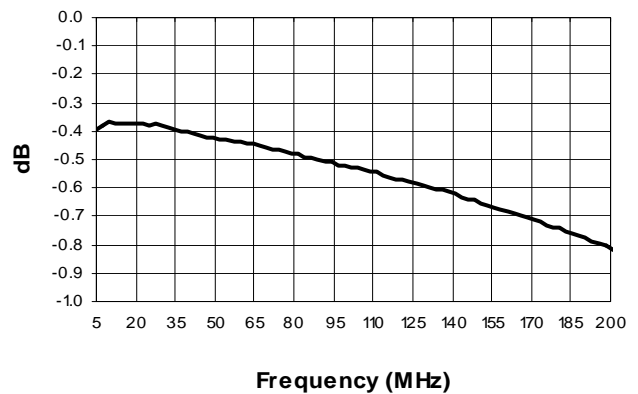
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## Typical Performance Curves: $T_A = 25^\circ\text{C}$

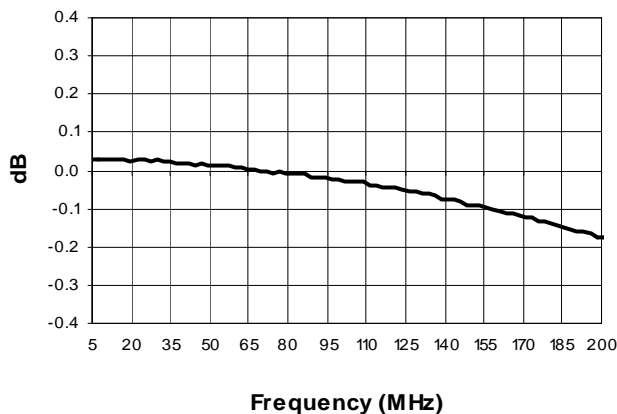
### Insertion Loss 1



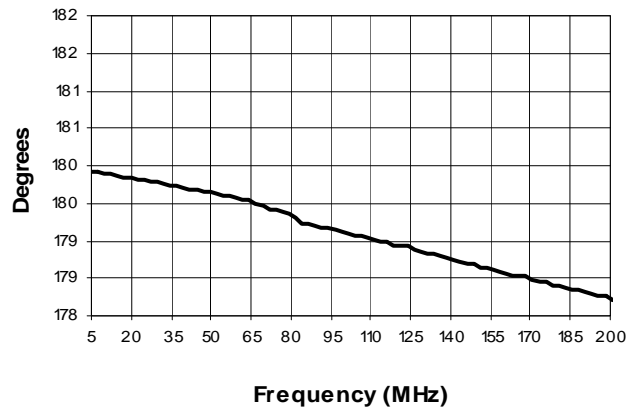
### Insertion Loss 2



### Amplitude Unbalance



### Phase Balance



### Input Return Loss

