

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

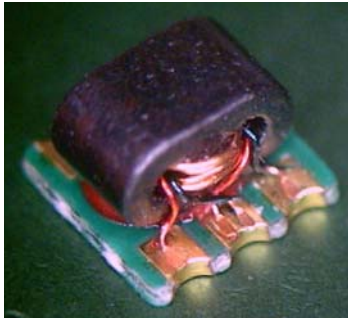
MABA-008354-CF4A40  
V1

### Features

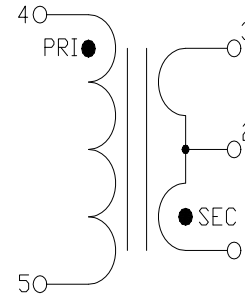
- Surface Mount
- 4:1 step-down Flux Coupled
- 260°C Reflow Compatible
- RoHS\* Compliant
- All wires are welded to the PCB carrier
- Available on Tape and Reel. Reel quantity 2000

### 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



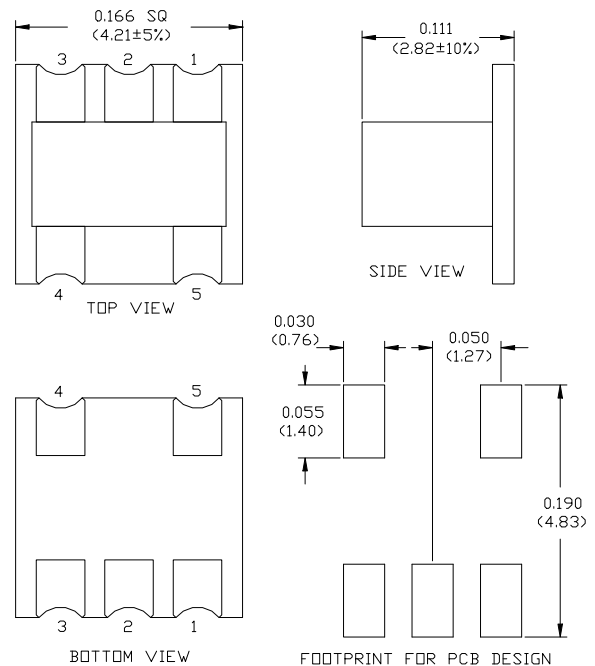
### Pin Configuration

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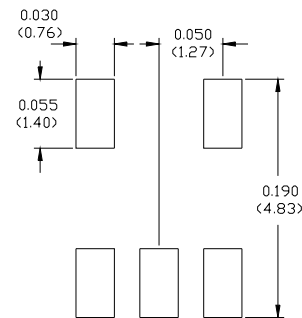
### Electrical Specifications: $T_A = 25^\circ\text{C}$ , $Z_0 = 75\Omega$ <sup>1</sup>

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



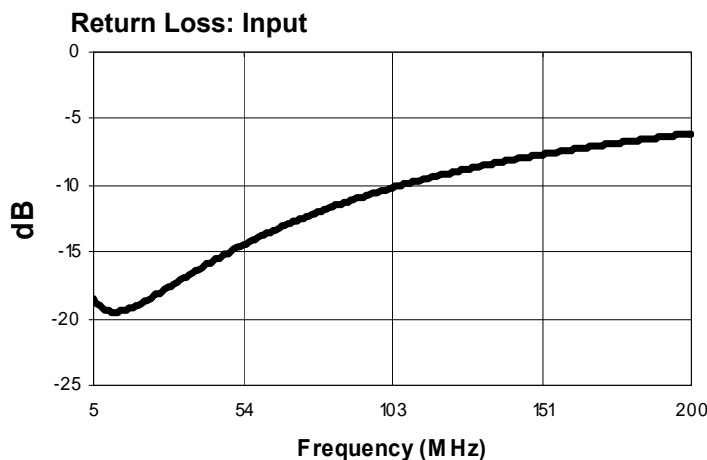
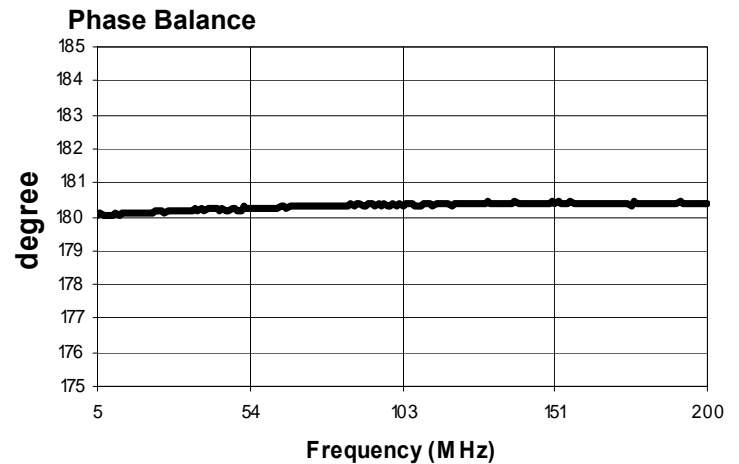
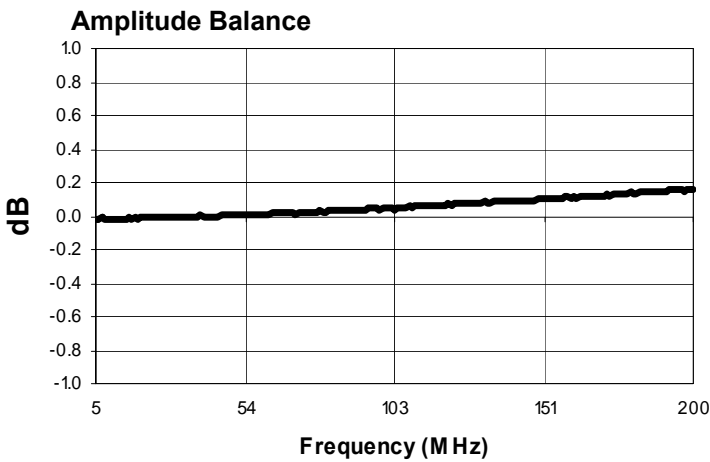
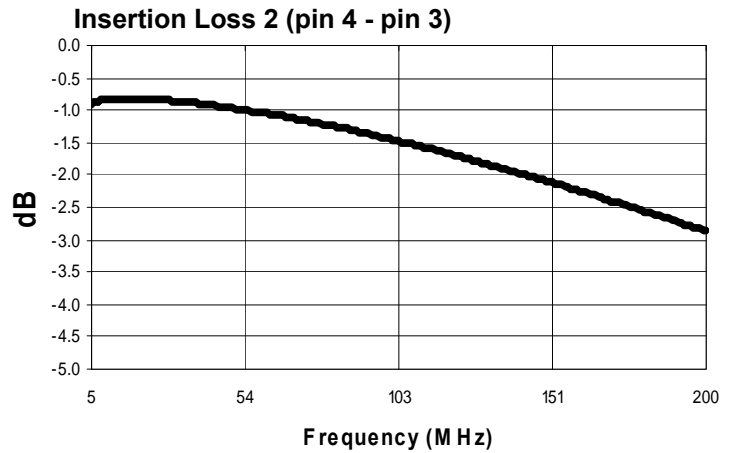
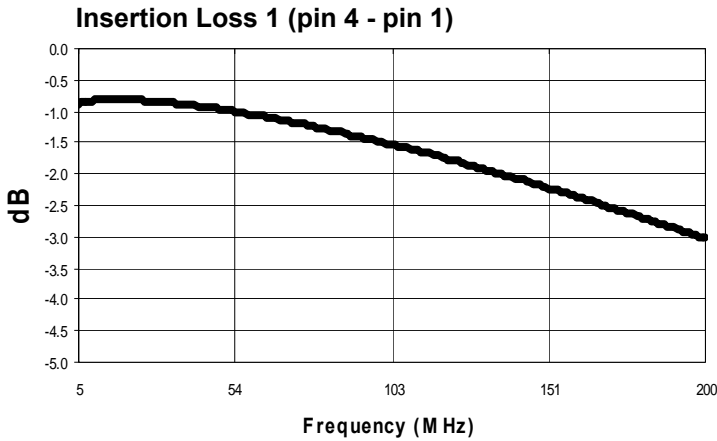
FOOTPRINT FOR PCB DESIGN

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>



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