

# 4:1 Flux Coupled Step-up Transformer 1-350MHz

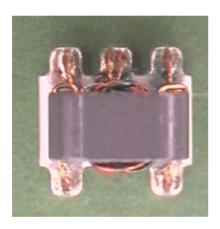
Rev. V2

#### **Features**

- n Surface Mount
- n 4:1 Impedance
- n 260°C Reflow Compatible
- n RoHS\* Compliant
- n RoHS version of ETC4-1 and MABACT0011.
- n Available on Tape and Reel. Reel quantity 2000

### **Description**

MABA-007493-CF4160 is a 4:1 flux coupled stepup transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.

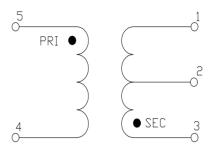


## **Pin Configuration**

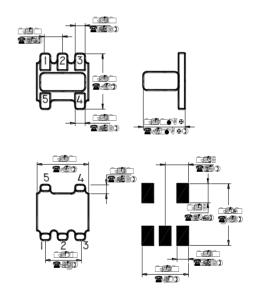
Pin No.	Function			
1	Secondary			
2	Secondary CT			
3	Secondary Dot			
4	Primary			
5	Primary Dot			

Note: Reference Application Note M513 for reel size information.

#### **Schematic**



#### Case Style: SM-22



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

## **Ordering Information**

Part Number	Package			
MABA-007493-CF4160TR	2000 piece reel			
MABA-007493-CF41TB	Customer test board			

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



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

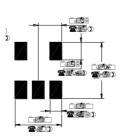
Parameter	Test Conditions	Units	Min	Тур	Max	Mean (x)	Sigma (x)
Insertion Loss 1	5 - 100 MHz 2 - 300 MHz 1 - 350 MHz	dB dB dB	- - -	0.8 1.6 2.0	1.0 2.0 3.0	- 1.21 -	0.032
Amplitude Unbalance	5 - 100 MHz 1 - 350 MHz	dB db	-	-	±0.1 ±0.5		-
Phase Unbalance	5 - 100 MHz 1 - 350 MHz	0	-	-	±1.0 ±5.0	-	

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

Parameter	Absolute Maximum				
RF Power	250mW				
DC current	30mA				
Operating Temperature	-40°C to +85°C				
Storage Temperature	-40°C to +85°C				

- 1. 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**



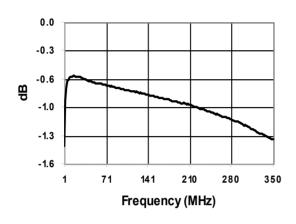


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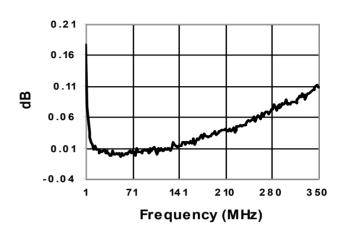
Rev. V2

## Typical Performance Curves: $T_A = 25^{\circ}C$ , $Z_0 = 50\Omega$

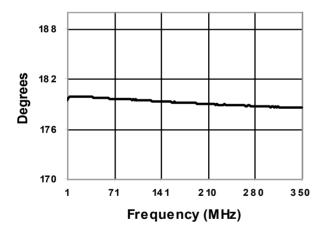
#### **Insertion Loss**



#### **Amplitude Unbalance**



#### **Phase Balance**





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