

## 2:1 Flux Coupled Balun Transformer

## 5 - 100 MHz Rev. V2

#### **Features**

- 2:1 Impedance
- Surface Mount Package
- 75 Ω Single Ended to 37.5 Ω Balance
- · RoHS Compliant, Lead Free
- · Available on Tape and Reel

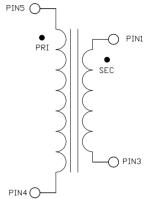
## **Description**

The MABA-009776-CF28A0 is a 2:1 RF flux coupled step-down balun transformer with out a center tap, in a surface mount package.

Ideally suited for high volume CATV/Broadband applications.

#### **Schematic**





### **Pin Configuration**

Pin #	Function		
1	Secondary Dot		
2	No Connection		
3	Secondary		
4	Primary		
5	Primary Dot		

## Electrical Specifications: Freq. = 5 - 100 MHz, $T_A$ = 25°C, $Z_0$ = 75 $\Omega$ , $P_{IN}$ = 0 dBm

Parameter	Test Conditions	Units	Min.	Тур.	Max.
Insertion Loss 1 (Pin 5 to Pin 1)	5 - 100 MHz	dB	_	0.4	8.0
Insertion Loss 2 (Pin 5 to Pin 3)	5 - 100 MHz	dB	_	0.4	0.8
Amplitude Balance	5 - 100 MHz	dB	_	0.1	±1.0
Phase Balance	5 - 100 MHz	0	_	2.0	±6.0
Input Return Loss (Pin 4)	5 - 100 MHz	dB	14	22	_

## **Ordering Information**

Part #	Package
MABA-009776-CF28A0	2000
MABA-009776-CF28TB	Customer Test Board

## **Recommended Maximum Ratings**

Parameter	Value		
RF Power	er 27 dBm (500 mW)		
DC Current	300 mA		
Operating Temperature	-40°C to +100°C		
Storage Temperature	-55°C to +115°C		

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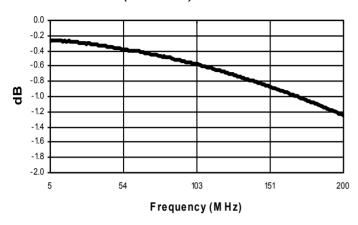


## 2:1 Flux Coupled Balun Transformer

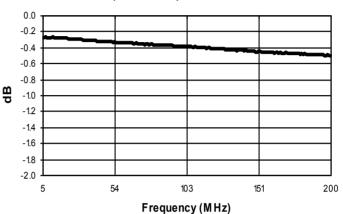
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## Typical Performance: $T_A = 25^{\circ}C$ , $Z_0 = 75 \Omega$ , $P_{IN} = 0 \text{ dBm}$

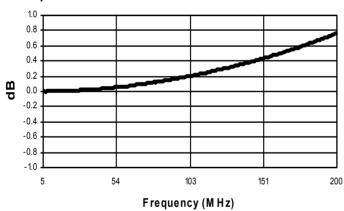
#### Insertion Loss 1 (Pin5 - Pin1)



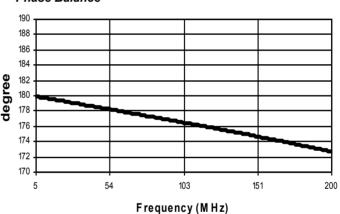
#### Insertion Loss 2 (Pin5 - Pin3)



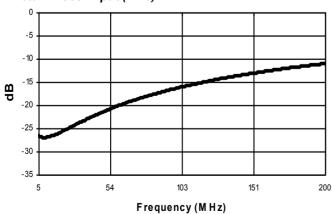
#### Amplitude Balance



#### Phase Balance



#### Return Loss: Input (Pin5)



#### Note:

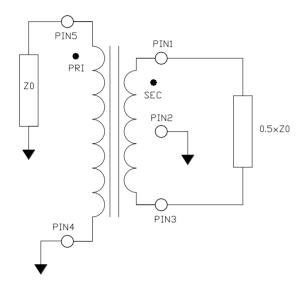
Graphs plotted to 200 MHz for reference only.



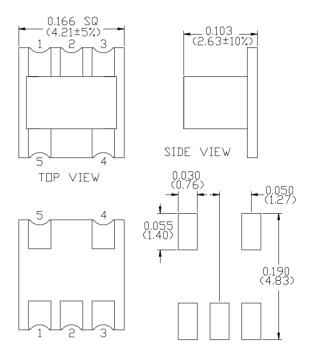
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## **Application Circuit**



## Case Style SM-164



Dimensions are inches (millimetres)  $\pm 0.015$  (0.38) unless otherwise specified.



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