

Transformer, 1:4 Flux Coupled Transformer 5 to 100 MHz

M/A-COM Products Rev. V1

#### **Features**

- Surface mount
- 1:4 Impedance ratio
- Centre tap on Secondary
- 260°C reflow compatible
- RoHS\* compliant and lead free
- Available on tape and reel

### **Description**

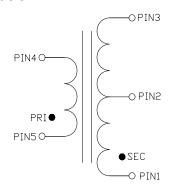
M/A Com's MABA-010061-CF4FA0 is a 1:4 RF Flux coupled transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



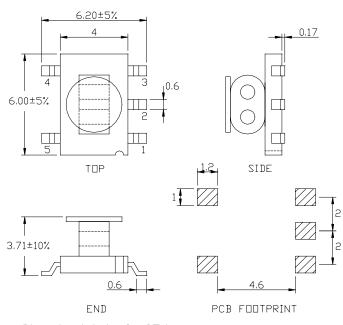
## **Pin Configuration**

Pin no.	Function		
1	Secondary dot		
2	Secondary Centre Tap		
3	Secondary		
4	Primary		
5	Primary Dot		

#### **Schematic**



### Case style



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

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PRELIMINARY: Data Sheets contain information regarding a product MA-COM Technical 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. Commit-MA-COM Technical Solutions and its affiliates reserve the right to make changes to the ment to produce in volume is not guaranteed.

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- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298 Visit www.macomtech.com for additional data sheets and product information.

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



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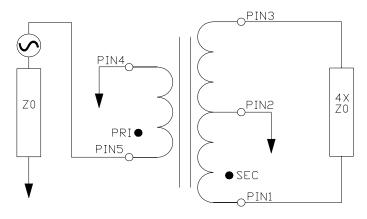
### Electrical Specifications: $T_A = 25$ °C, 0dBm, $Z_0 = 75\Omega$ , $P_{in} = 0$ dBm

Parameter	Frequency	Units	Min	Тур	Max
Insertion Loss	5 - 100 MHz	dB	-	1.22	1.5
Amplitude Unbalance (Nominal 0dB)	5 - 100 MHz	dB	-	0.01	±0.1
Phase Unbalance (Nominal 180º)	5 - 100 MHz	0	-	0.05	±1.0
Input Return Loss	5 - 65 MHz 65 - 200 MHz	dB dB	15 16	19 18	-

## **Recommended Maximum Ratings**

Parameter	Value		
Input power	At least +28dBm (631mW)		
DC current (tested at 5V)	At least 600mA		
Operating Temperature	-40°C to +85°C		
Storage Temperature	-55°C to +100°C		

## **Application Circuit**



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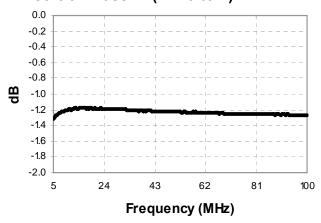


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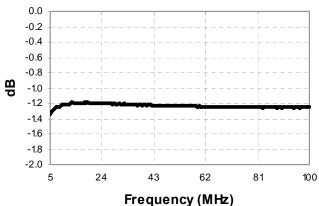
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Typical Performance Curves:  $T_A = 25^{\circ}C$ , 0dBm,  $Z_0 = 75\Omega$ ,  $P_{in} = 0$ dBm

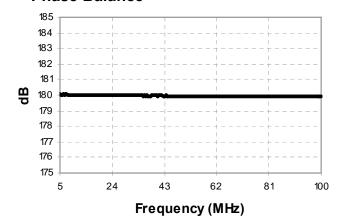
### Insertion Loss 1: (Pin 5 to 1)



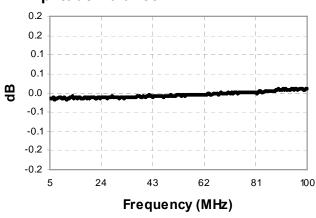
### Insertion Loss 2: (Pin 5 to 3)



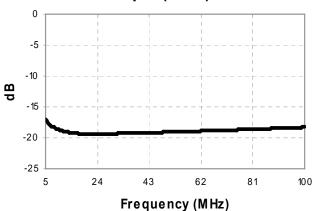
### **Phase Balance**



### **Amplitude Balance**



### **Return Loss: Input (Pin 5)**



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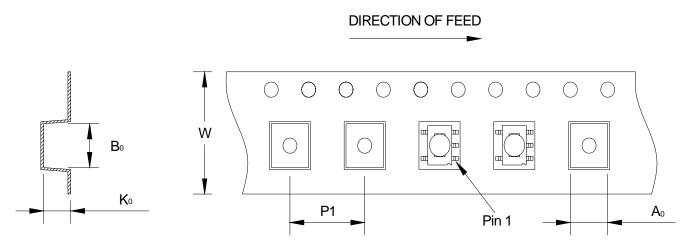
3



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### **Tape & Reel Information**



Item	Dimension		
Ao	6.6mm +/- 0.1mm		
Во	6.2mm +/- 0.1mm		
Ko	4.2mm +/- 0.1mm		
W	16.0mm +/- 0.3mm		
P1	8.00mm +/- 0.1mm		

### **Ordering Information**

Part number	Description		
MABA-010061-CF4FA0	900 piece reel		
MABA-010061-CF4FTB	Customer Test Board		

<sup>•</sup> Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

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