

## 16:1 Flux Coupled Transformer 5 - 90 MHz

Rev. V2

### Features

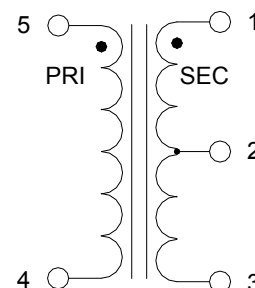
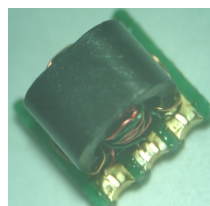
- 16:1 Flux Coupled
- Surface Mount Package
- 260°C Reflow Compatible
- RoHS v Compliant Version of MABACT0046

### Description

The MABA-008282-CFGA40 is a 16:1 flux coupled transformer in a surface mount package.

Ideally suited for high volume CATV/Broadband applications. Suitable for use in both 50  $\Omega$  & 75  $\Omega$  systems.

### Schematic



### Pin Configuration

Pin #	Function
1	Secondary Dot (output 2)
2	Centre Tap
3	Secondary (output 1)
4	Primary (ground)
5	Primary Dot

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

Parameter	Frequency	Units	Min.	Typ.	Max.
Insertion Loss	5 - 15 MHz	dB	—	1.3	1.8
	15 - 63 MHz			1.1	1.7
	63 - 90 MHz			1.9	2.5
Amplitude Balance	5 - 90 MHz	dB	—	$\pm 0.03$	$\pm 0.15$
Phase Balance	5 - 90 MHz	$^\circ$	—	$\pm 0.1$	$\pm 1.0$
Input Return Loss	5 - 63 MHz	dB	7	13	—
	63 - 90 MHz		4	6	

### Ordering Information

Part #	Description
MABA-008282-CFGA40	2000 piece reel
MABA-008282-CFGATB	customer test board

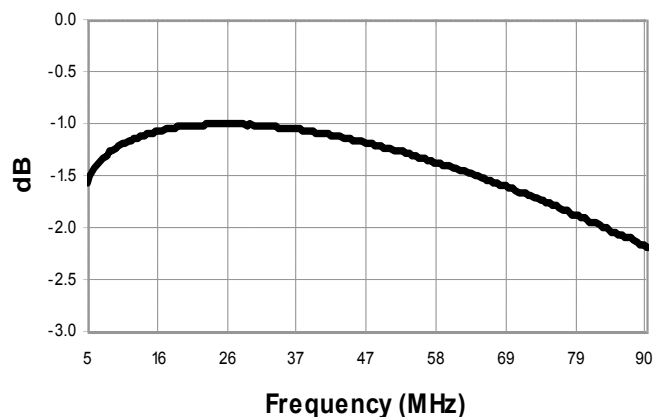
Reference Application Note **M513** for reel size information.

### Absolute Maximum Ratings

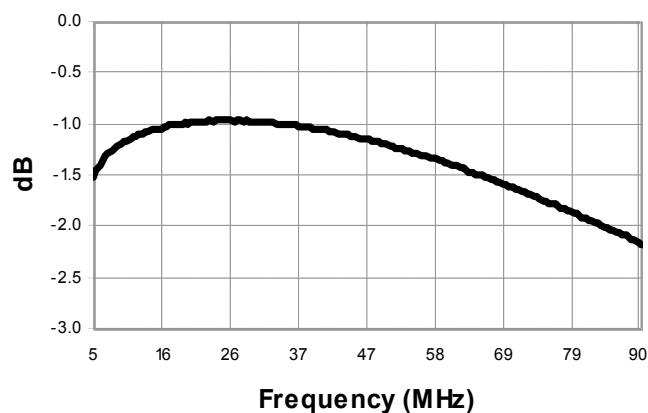
Parameter	Absolute Maximum
RF Power	250 mW
DC current	30 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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

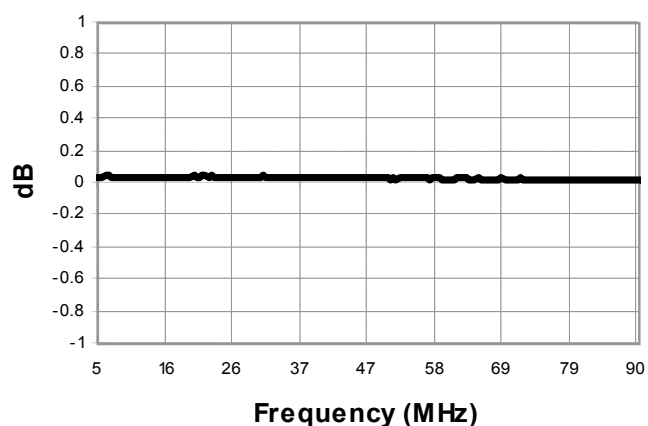
**Insertion Loss 1 (Pin5—Pin3)**



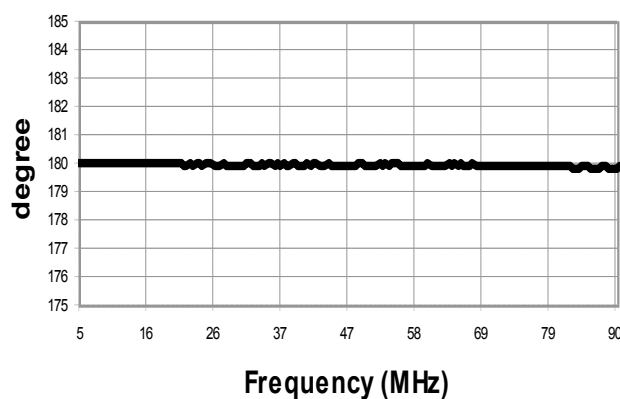
**Insertion Loss 2 (Pin5—Pin1)**



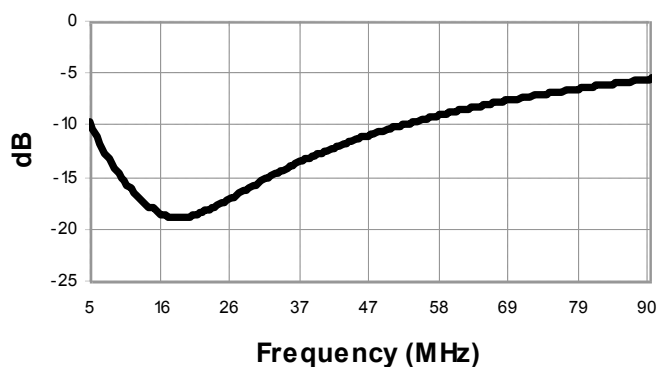
**Amplitude Balance**



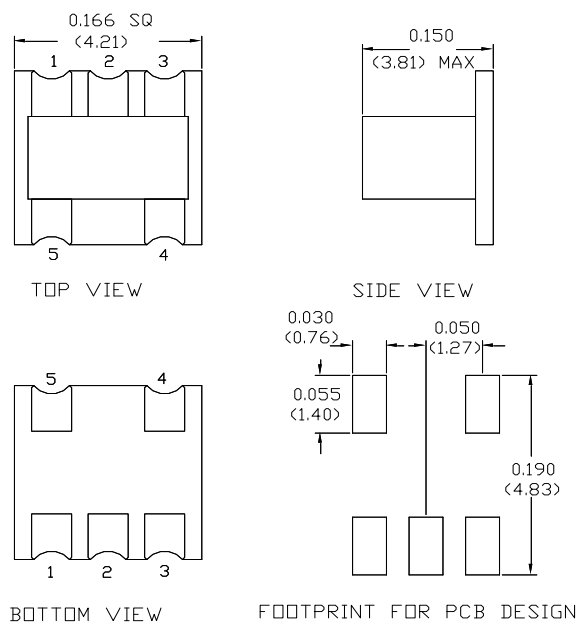
**Phase Balance**



**Return Loss: Input**



## Outline Drawing (SM-164)



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

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