

MABA-009412-CF1BC0



1:1 Flux Coupled BalBal Transformer with separated center taps
5 - 120 MHz

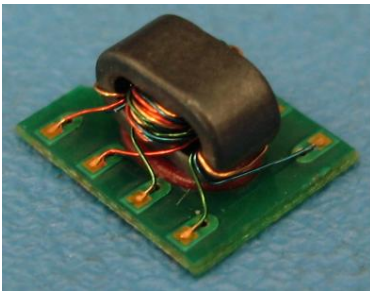
M/A-COM Products
Part Status: Released Rev V1

Features

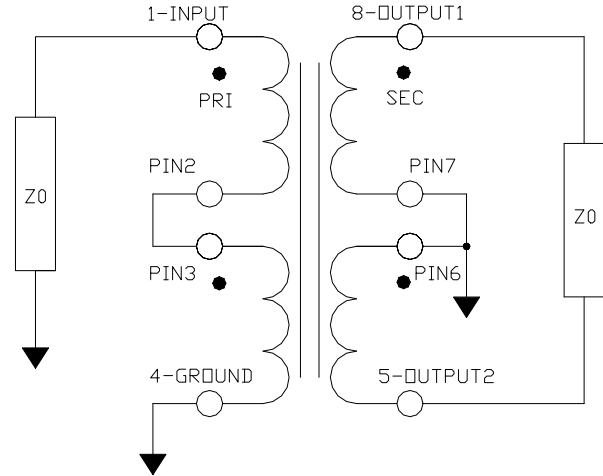
- Surface Mount
- 1:1 Impedance
- 75 Ohm
- RoHS Compliant

Description

M/A-COM's MABA-009412-CF1BC0 is a 1:1 BalBal flux coupled transformer in a low cost surface mount package. The 4 coils on this core are routed to separate pins on the carrier, so it may be configured for many different circuits. Ideally suited for high volume CATV application.



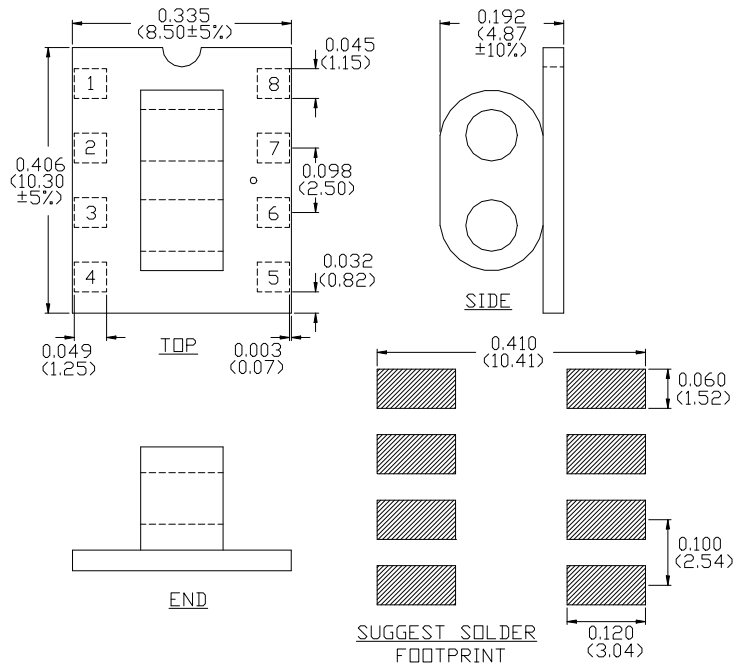
Schematic



Pin Configuration

Function	Pin Number
Coil 1 dot (input)	1
Coil 1 (short to 3)	2
Coil 2 dot (short to 2)	3
Coil 2 (ground)	4
Coil 3 (output 2)	5
Coil 3 dot (ground)	6
Coil 4 (ground)	7
Coil 4 dot (output 1)	8

Case Style SM-193



Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.

Ordering Information

Part Number	Package
MABA-009412-CF1BC0	500 pieces per reel
MABA-009412-CF1BTB	Customer test board

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

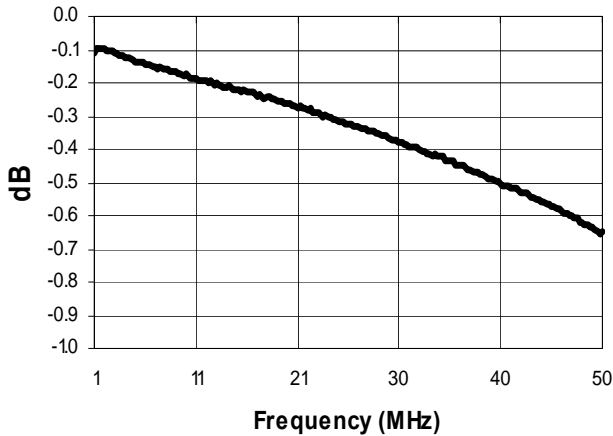
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range	1 - 50 MHz				
Insertion Loss 1 (Pin 1 to Pin 8)	1 - 25 MHz	dB	-	0.2	0.4
	25 - 50 MHz	dB	-	0.5	0.8
Insertion Loss 2 (Pin 1 to Pin 5)	1 - 25 MHz	dB	-	0.2	0.4
	25 - 50 MHz	dB	-	0.3	0.6
Amplitude Un-Balance	1 - 25 MHz	dB	-	± 0.04	± 0.2
	25 - 50 MHz	dB	-	± 0.23	± 0.6
Phase Un-Balance	1 - 50 MHz	$^\circ$	-	± 0.6	± 3.0
Input Return Loss (Pin 1)	1 - 10 MHz	dB	20	25	-
	10 - 25 MHz	dB	16	22	-
	25 - 50MHz	dB	12	17	-

Absolute Maximum Ratings

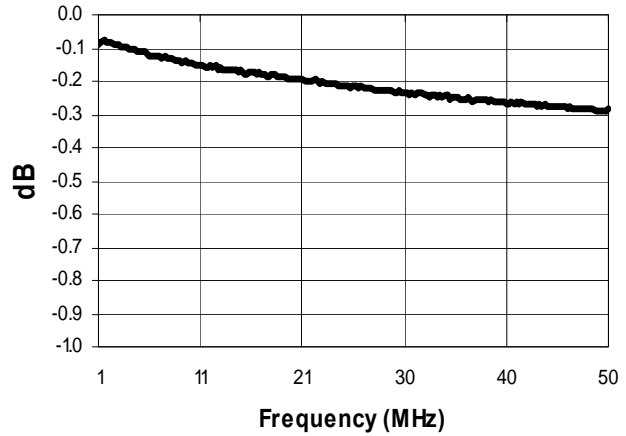
Parameter	Absolute Maximum
RF Power	250mW
DC Current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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

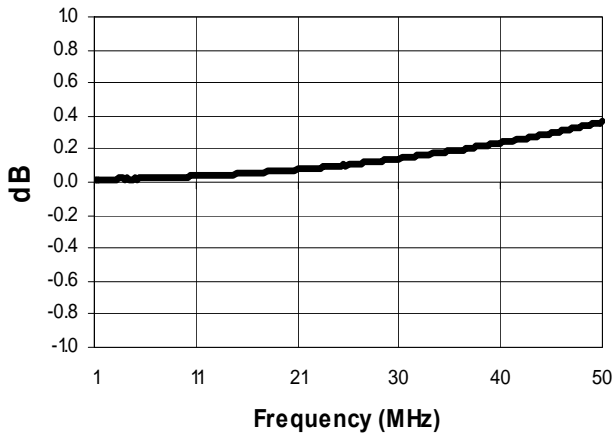
Insertion Loss 1 (Pin 1 - Pin 8)



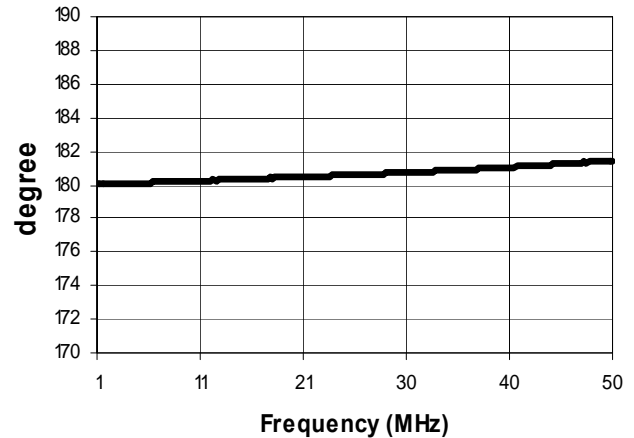
Insertion Loss 2 (Pin 1 - Pin 5)



Amplitude Balance



Phase Balance



Return Loss: Input (Pin 5)

