MABA-009600-CF48A0

1:4 Flux Coupled Transformer
4 - 200 MHz

Rev. V4

Features

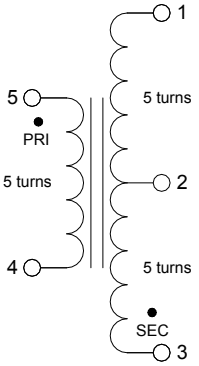
- 1:4 Impedance Ratio
- Surface Mount Package
- Excellent Amplitude & Phase Balance
- 260°C Reflow Compatible
- RoHS* Compliant and Pb Free

Description

The MABA-009600-CF48A0 is a RoHS Compliant 1:4 flux coupled transformer in a surface mount package.

Schematic





Pin Configuration

Pin #	Function
1	Secondary
2	Secondary Center Tap
3	Secondary Dot
4	Primary
5	Primary Dot

Electrical Specifications: Freq. = 4 - 200 MHz, T_A = 25°C, Z_0 = 50 Ω, P_{IN} = 0 dBm

Parameter	Frequency	Units	Min.	Typ.	Max.
Impedance Ratio	—	Ratio	—	1:4	—
Insertion Loss	4 - 65 MHz 65 - 200 MHz	dB	—	0.4 0.9	0.7 1.5
Amplitude Unbalance	4 - 65 MHz 65 - 200 MHz	dB	—	±0.02 ±0.2	±0.1 ±0.5
Phase Unbalance	4 - 65 MHz 65 - 200 MHz	°	—	±0.4 ±2.0	±2.0 ±8.0
Input Return Loss	4 - 65 MHz 65 - 200 MHz	dB	15 7	22 11	—

Ordering Information

Part #	Description
MABA-009600-CF48A0	2000 piece reel
MABA-009600-CF48TB	customer evaluation board

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

Absolute Maximum Ratings

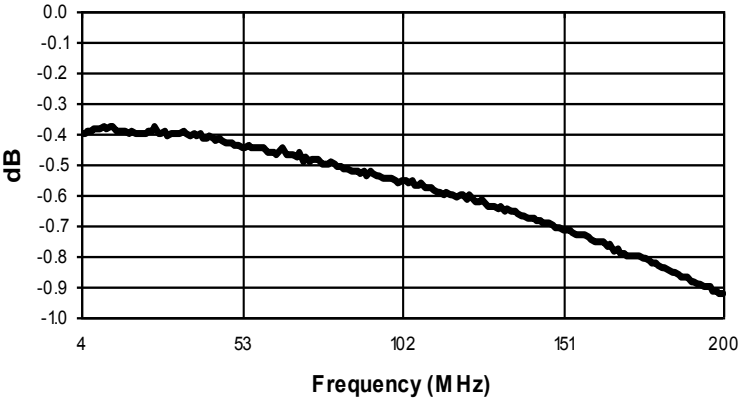
Parameter	Absolute Maximum
RF Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

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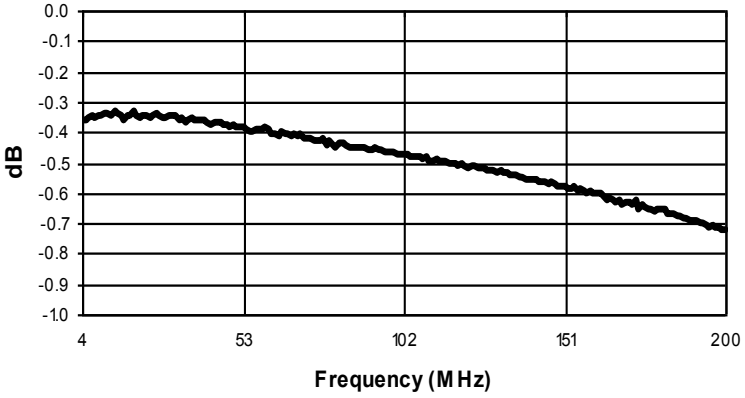
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Typical Performance Curves: T_A = 25°C, Z_0 = 50 Ω P_{IN} = 0 dBm

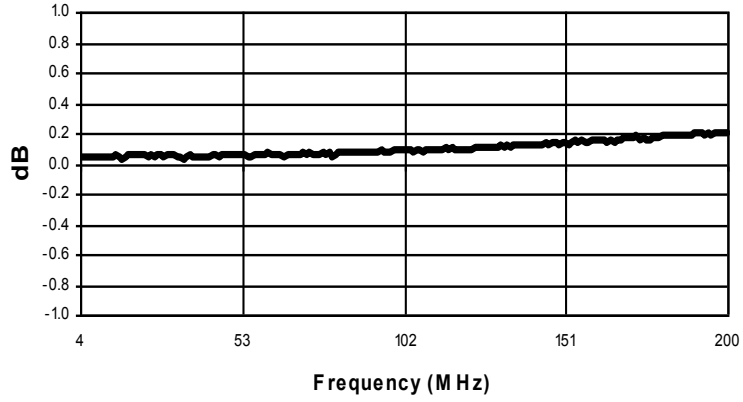
Insertion Loss 1: (Pin 4-1)



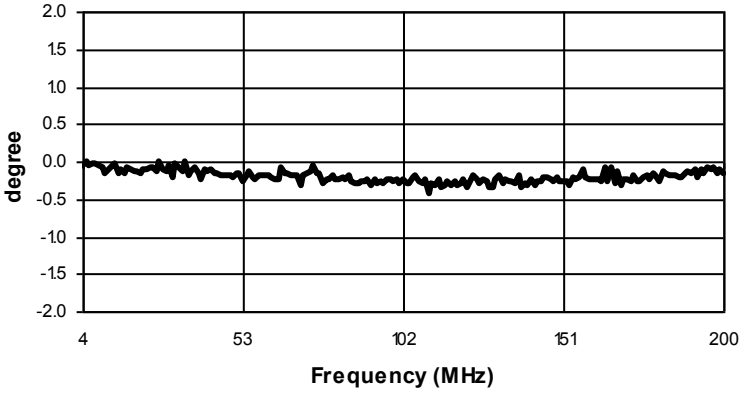
Insertion Loss 2: (Pin 4-3)



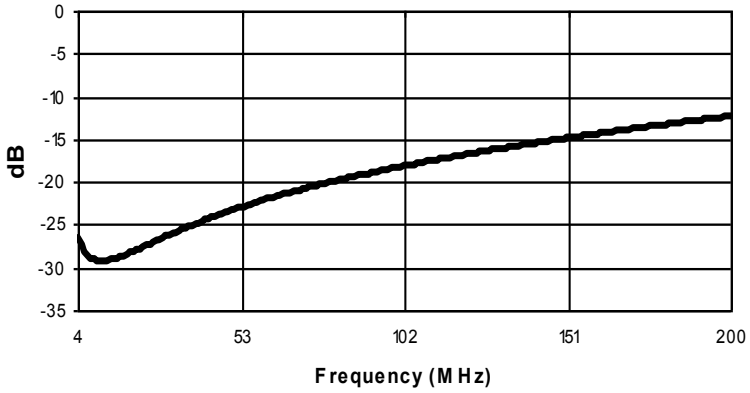
Amplitude Balance:



Phase Balance:



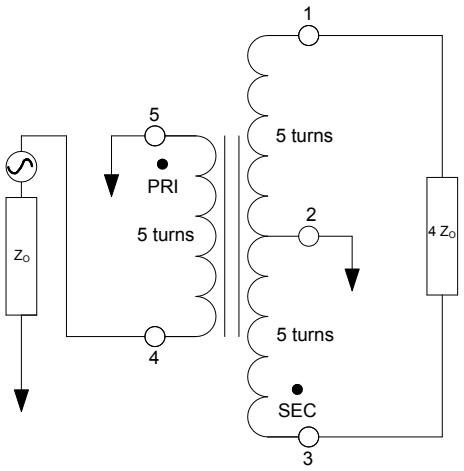
Input Return Loss: (Pin 4)



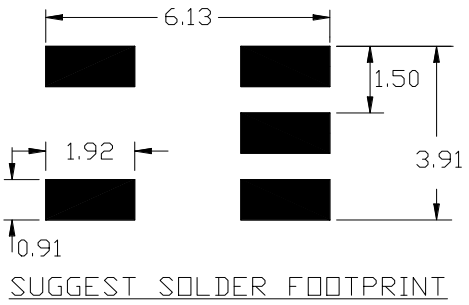
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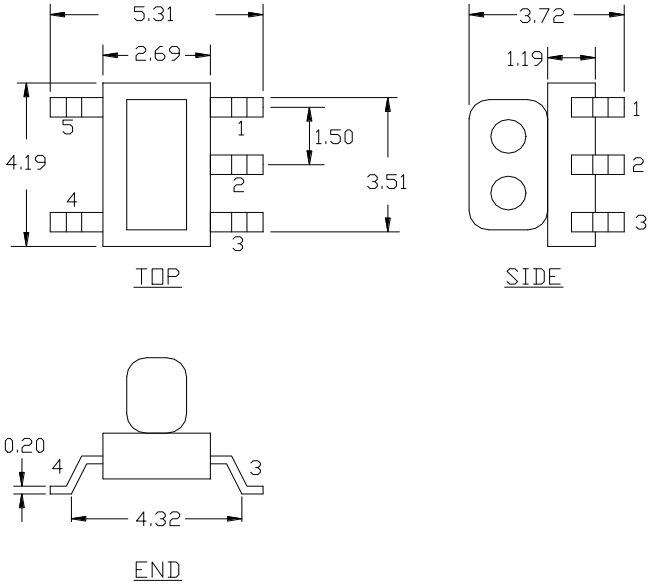
Application Circuit



Recommended Footprint



Outline Drawing



1. Dimensions in mm.
2. Tolerance: ±0.2 mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: CuSn6

Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.0
Pitch (P_1)	mm	8.0
A_0	mm	5.60
B_0	mm	4.50
K_0	mm	4.00
Orientation	-	F26
Reference Application note ANI-019 for orientation		

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