

1:1 RF Transformer 5 - 1200 MHz



MABA-007748-CT1160

Rev. V4

Features

- Surface Mount Technology
- 1:1 RF Transformer
- 260°C Reflow Compatible
- RoHS Compliant and Pb Free
- RoHS version of ETC1-1T-75
- Available on Tape and Reel

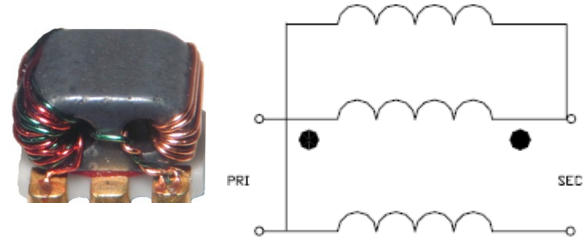
Applications

- CATV / Broadband

Description

The MABA-007748-CT1160 is a 1:1 RF transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications.

Functional Schematic



Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary (Dot)	4	Primary
2	Not connected	5	Primary (Dot)
3	Secondary		

Electrical Specifications: Freq. = 5 - 1200 MHz, T_A = +25 °C, Z₀ = 75 Ω

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	5 - 40 MHz	dB	—	0.27	0.5
	40 - 600 MHz			0.32	1.0
	600 - 1000 MHz			0.57	2.0
	1000 - 1200 MHz			1.62	3.0
Amplitude Balance	5 - 1200 MHz	dB	—	0.36	1.0
Phase Balance	5 - 1000 MHz	°	—	0.58	10
	1000 - 1200 MHz			9.15	20
Input Return Loss	5 - 40 MHz	dB	17	27	—
	40 - 200 MHz		22	29	
	200 - 400 MHz		15	22	
	400 - 600 MHz		10	17	
	600 - 1200 MHz		6	11	

Ordering Information

Part Number	Package
MABA-007748-CT1160	2000 piece reel
MABA-007748-CT11TB	Sample Board

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Power	250 mW
DC current	500 mA
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C

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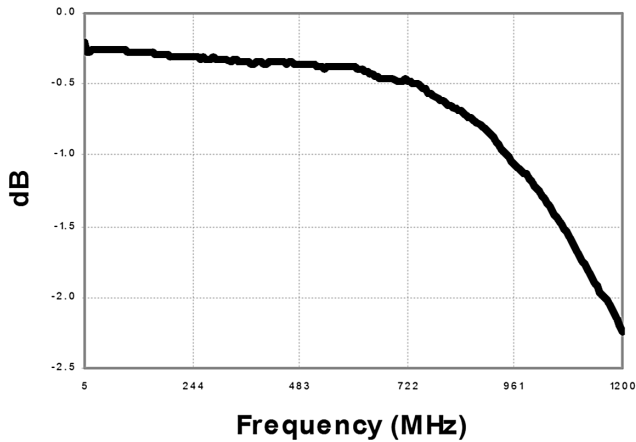


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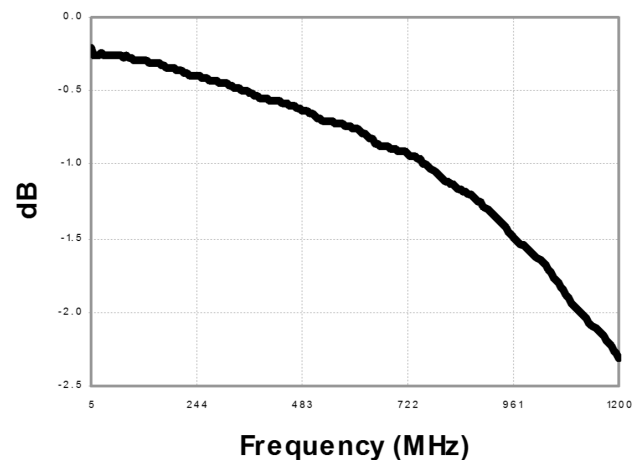
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75 \Omega$

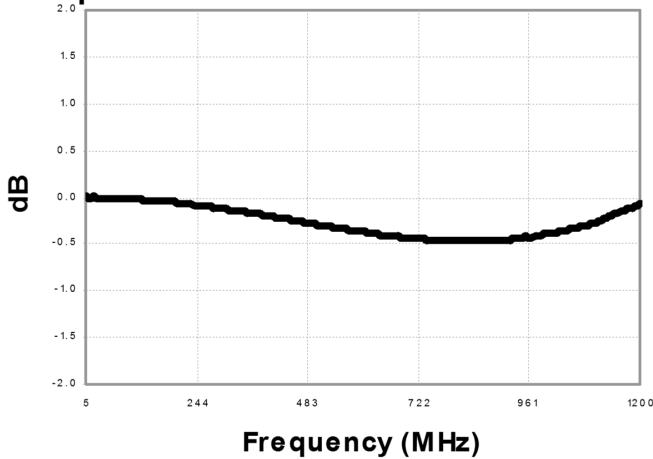
Insertion Loss 1: pin5 - pin3



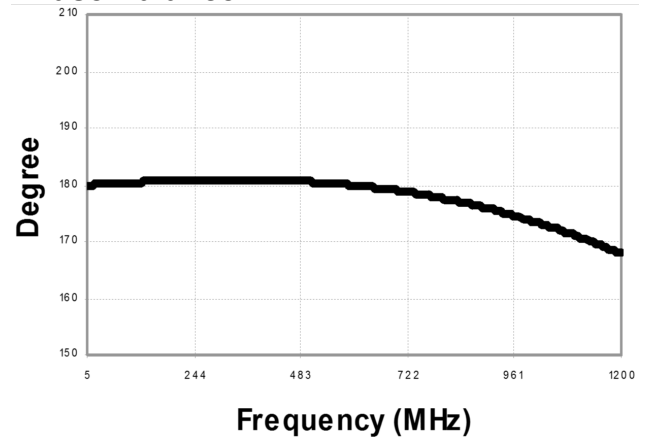
Insertion Loss 2: pin5 - pin1



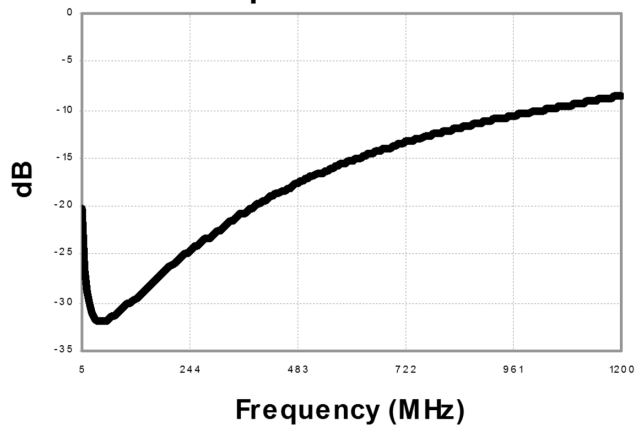
Amplitude Balance



Phase Balance



Return Loss: Input



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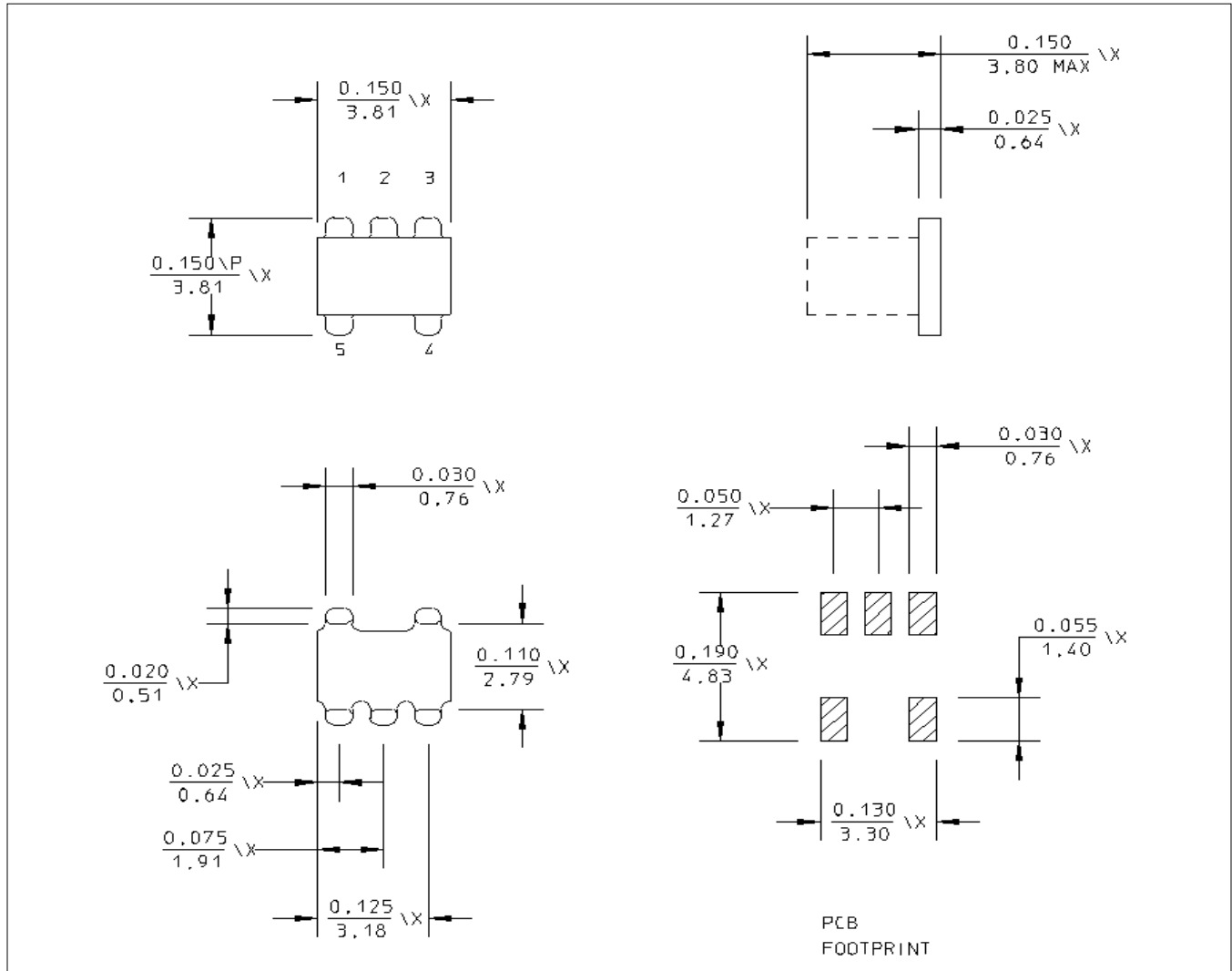
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Case Style: SM-22



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

Revision History

Rev	Date	Change Description
V4	2024-Sep-17	Increase DC current Absolute Maximum to 500 mA, was 30 mA

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