

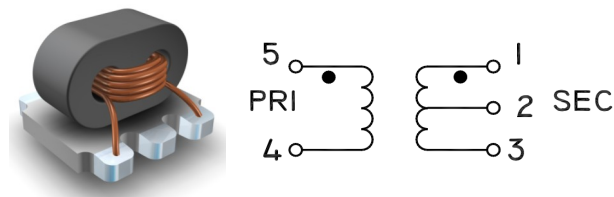
1:1 Transformer 3 - 200 MHz

Rev. V5

Features

- 1:1 Impedance Ratio
- Surface Mount Package
- Excellent Temperature Stability
- Can be used in both 50 Ω & 75 Ω Systems
- 260°C Reflow Compatible
- RoHS Compliant Version of ETC1-1T & MABACT0012
- Available on Tape & Reel

Schematic



Pin Configuration

Pin #	Function
1	Secondary Dot
2	Secondary CT
3	Secondary
4	Primary
5	Primary Dot

Description

MABACT0062 is a 1:1 RF flux coupled transformer in a surface mount package.

Ideally suited for high volume CATV/Broadband applications.

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50 \Omega$ $P_{IN} = 0 \text{ dBm}$

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	3 - 50 MHz	dB	—	0.2	0.5
	50 - 160 MHz			0.5	1.0
	160 - 200 MHz			0.8	1.2
Amplitude Balance (Nominal 0dB)	3 - 50 MHz	dB	—	0.02	± 0.1
	50 - 200 MHz			0.06	± 0.5
Phase Balance (Nominal 180°)	3 - 50 MHz	°	—	0.2	± 1.5
	50 - 200 MHz			0.5	± 5.0
Input Return Loss	3 - 200 MHz	dB	10	20	—
	5 - 100 MHz		15	25	

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

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Insertion Loss	3 - 5 MHz	dB	—	0.5	1.0
	5 - 65 MHz			0.4	0.6
	65 - 200 MHz			0.6	1.0
Amplitude Balance (Nominal 0dB)	3 - 65 MHz	dB	—	0.02	± 0.2
	65 - 200 MHz			0.04	± 0.3
Phase Balance (Nominal 180°)	3 - 65 MHz	°	—	0.4	± 2.0
	65 - 200 MHz			1.2	± 5.0
Input Return Loss	3 - 5MHz	dB	18	24	—
	5 - 65 MHz		21	29	
	65 - 100 MHz		19	25	
	100 - 200 MHz		14	20	

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Ordering information

Part #	Description
MABACT0062	2000 piece reel
MABA-008115-CT62TB	Customer Test Board

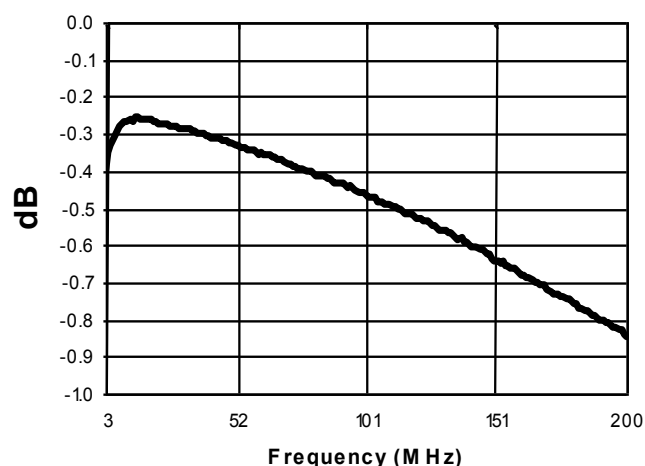
Reference Application Note **M513** for reel size information.

Recommended Maximum Ratings

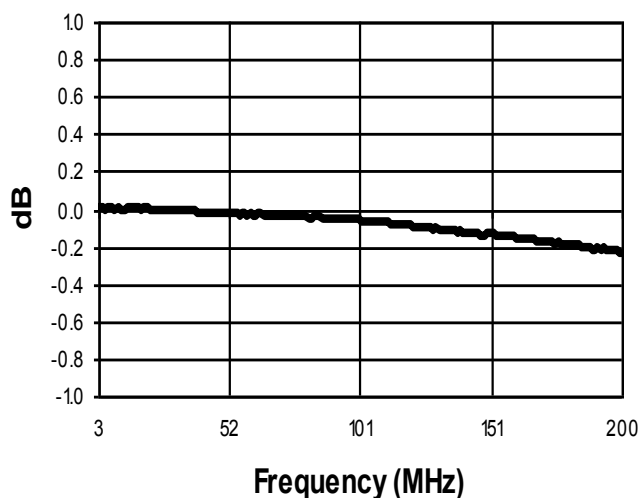
Parameter	Value
Input Power	250 mW
DC Current	200 mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\ \Omega$, $P_{IN} = 0\ \text{dBm}$

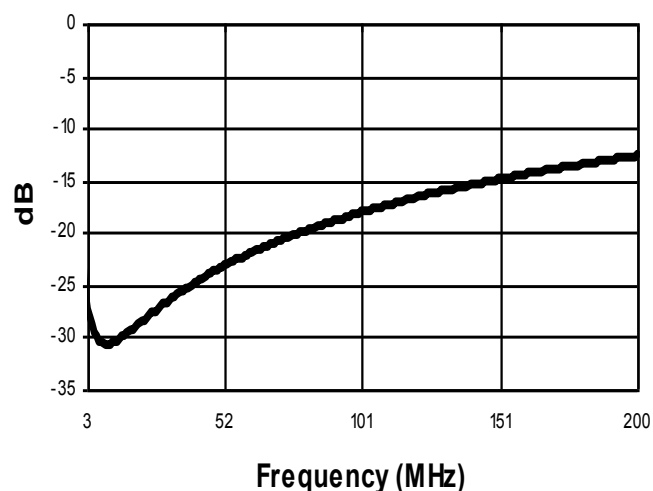
Insertion Loss



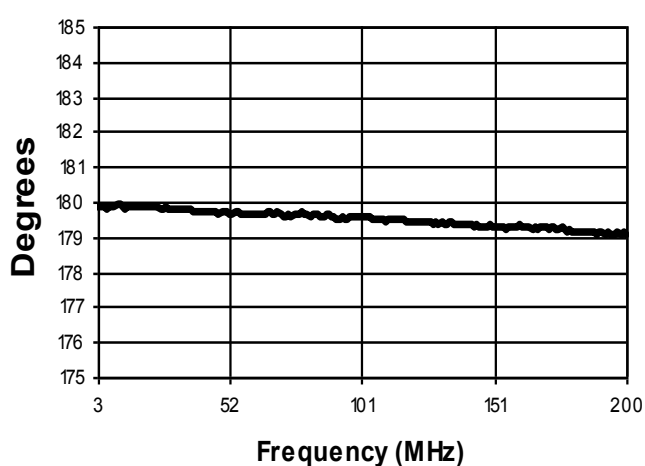
Amplitude Balance



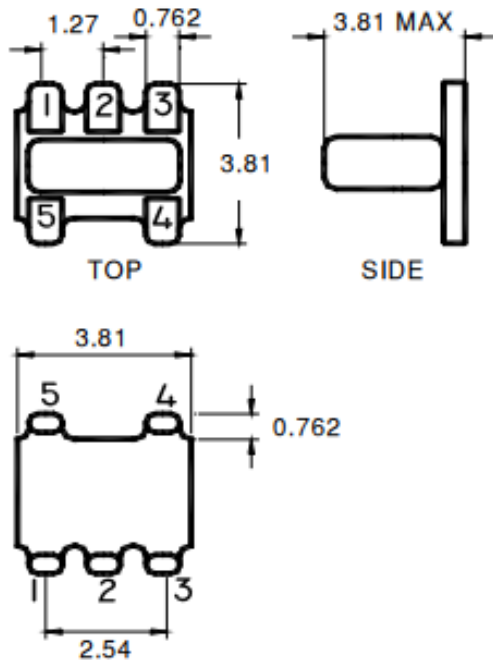
Input Return Loss



Phase Balance

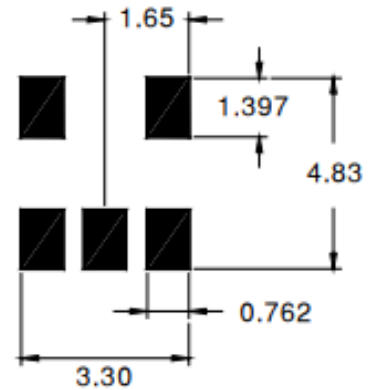


Outline Drawing



1. Dimensions in mm.
2. Tolerance: ± 0.2 mm unless otherwise noted.
3. Model number and lot code are printed on the reel.

Recommended Footprint



Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel Size	mm	330
Tape Width	mm	12.00
Pitch	mm	8.00
Ao	mm	4.00
Bo	mm	4.00
Ko	mm	2.90
Orientation	-	F5
Reference Application Note ANI-019 for orientation		

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