

**1:1 Flux Coupled Transformer
3-200MHz**

**MABACT0062
V3**

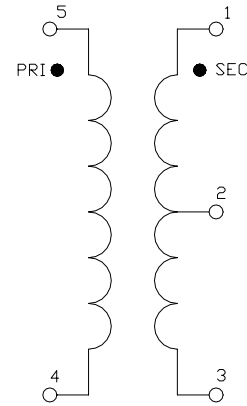
Features

- Surface Mount
- 1:1 Impedance
- Centre tap on secondary
- 260°C Reflow Compatible
- RoHS* Compliant
- RoHS version of ETC1-1T and MABACT0012
- Available on Tape and Reel. Reel quantity 2000

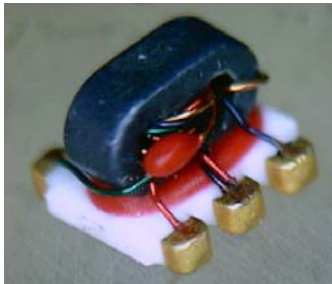
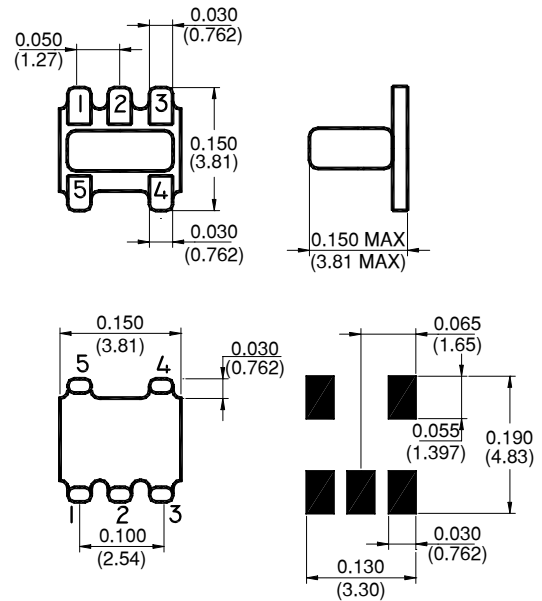
Description

M/A-COM's MABACT0062 is a 1:1 RF flux coupled transformer in a low cost, surface mount package. Ideally suited for high volume CATV/Broadband applications. This product is suitable for both 50 and 75 Ohm systems.

Schematic



Case Style: SM-22



Pin Configuration

Pin No.	Function
1	Secondary Dot
2	Secondary centre tap
3	Secondary
4	Primary
5	Primary Dot

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

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

Ordering Information

Part Number	Package
MABACT0062	2000 piece reel
MABA-008115-CT62TB	Customer test board

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Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	-	3 - 50 MHz	dB	-	0.2	0.5
	-	50 - 160 MHz	dB	-	0.5	1.0
	-	160 - 200 MHz	dB	-	0.8	1.2
Amplitude Unbalance (Nominal 0dB)	-	3 - 50 MHz	dB	-	0.02	± 0.1
	-	50 - 200 MHz	dB	-	0.06	± 0.5
Phase Unbalance (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	dB	15	25	-

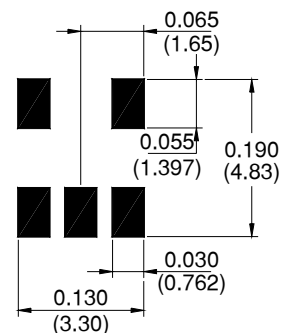
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	-	3 - 5 MHz	dB	-	0.5	1.0
	-	5 - 65 MHz	dB	-	0.4	0.6
	-	65 - 200 MHz	dB	-	0.6	1.0
Amplitude Unbalance (Nominal 0dB)	-	3 - 65 MHz	dB	-	0.02	± 0.2
	-	65 - 200 MHz	dB	-	0.04	± 0.3
Phase Unbalance (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	dB	21	29	-
	-	65 - 100 MHz	dB	19	25	-
	-	100 - 200 MHz	dB	14	20	-

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	240mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

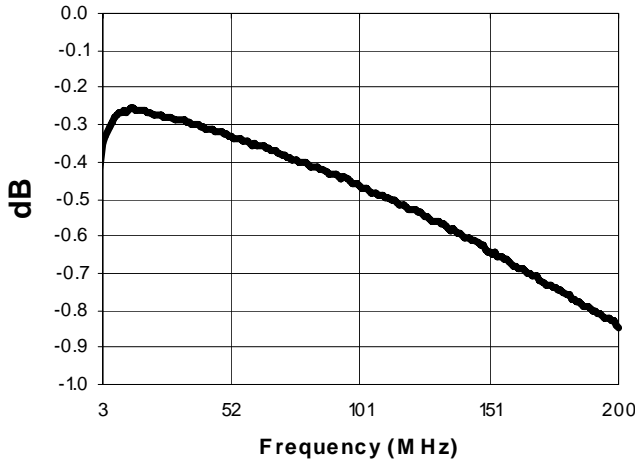
Recommended PCB Configuration



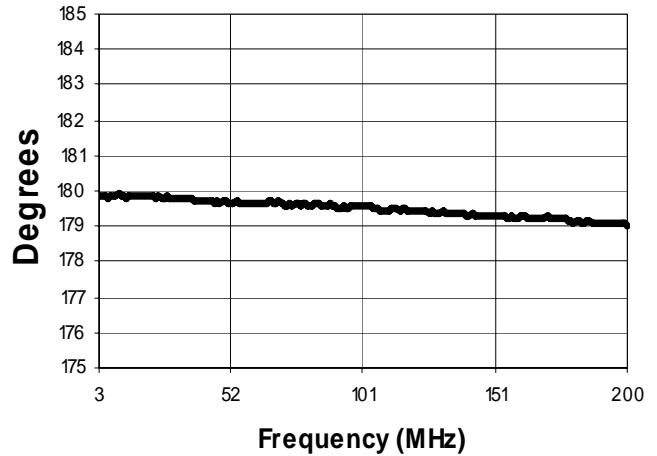
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹

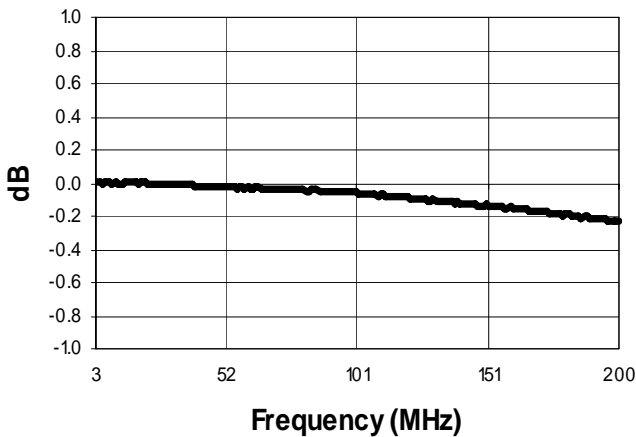
Insertion Loss



Phase Balance



Amplitude Unbalance



Input Return Loss

