tyco Electronics

RoHS Compliant

MACOM

2:1 Flux Coupled Transformer 5-200MHz

MABACT0068
V1P

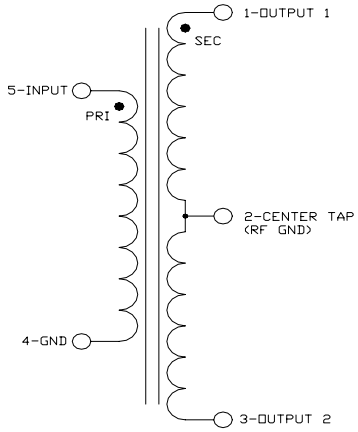
Features

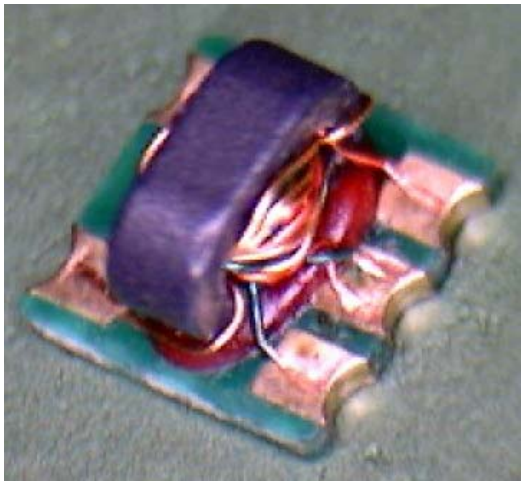
- Surface Mount
- 2:1 Impedance
- Excellent amplitude and phase balance
- 260°C Reflow Compatible
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

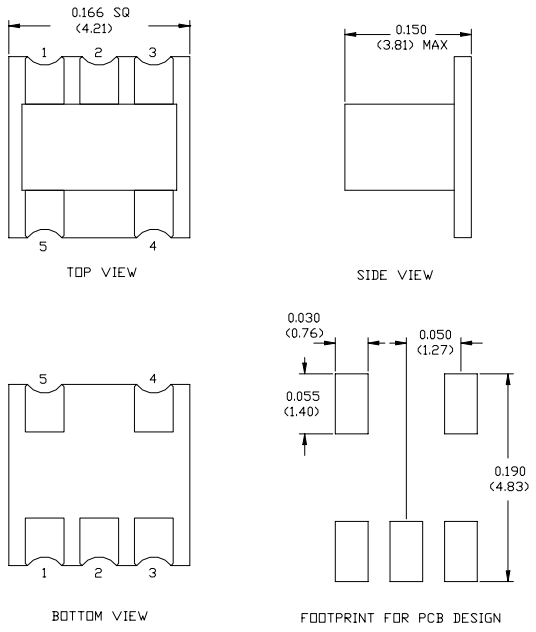
M/A-COM's MABACT0068 is a 2:1 RF Flux Coupled balun transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications. Suitable for use in 50 and 75 Ohm systems.

Schematic





Case Style: SM-164



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

Pin Configuration

Pin No.	Function
1	Secondary Dot (output 1)
2	Centre Tap (ground)
3	Secondary (output 2)
4	Primary (Ground)
5	Primary Dot (Input)

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

Ordering Information

Part Number	Package
MABACT0068TR	2000 piece reel

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

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.

Electrical Specifications: T_A = 25°C, Z_0 = 75Ω

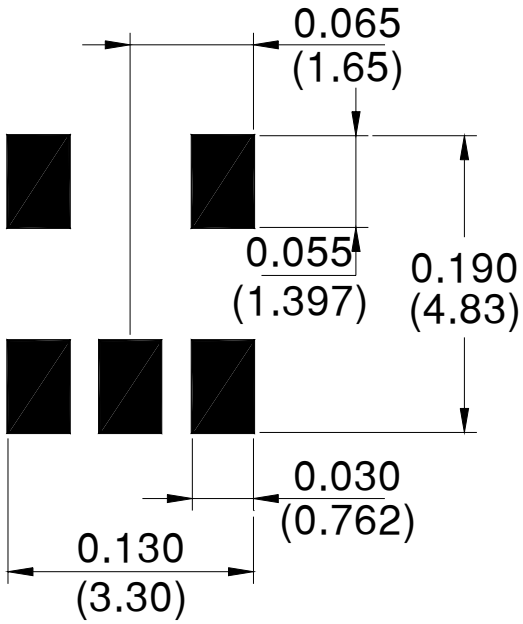
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 65 MHz	dB	-	0.3	0.5
Insertion Loss	65 - 200 MHz	dB	-	0.4	0.9
Amplitude Unbalance (Nominal 0dB)	5 - 65 MHz	dB	-	±0.02	± 0.15
Phase Unbalance (Nominal 180º)	5 - 50 MHz	º	-	±0.00	± 2.00
Input Return Loss	5 - 200 MHz	dB	18	22	-

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

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.

Recommended PCB Configuration



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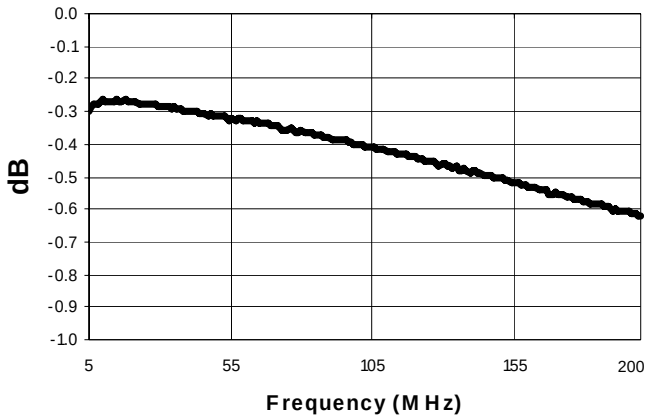
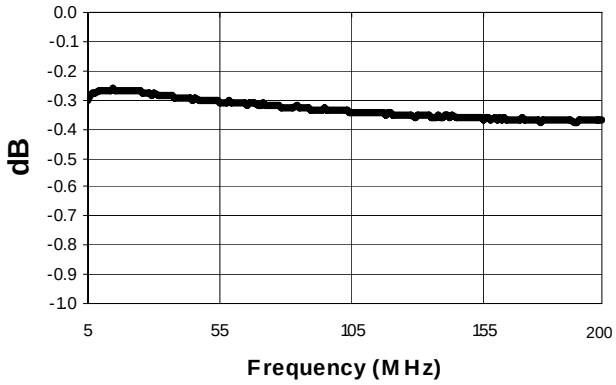
Typical Performance Curves: T_A = 25°C, Z_0 = 75Ω

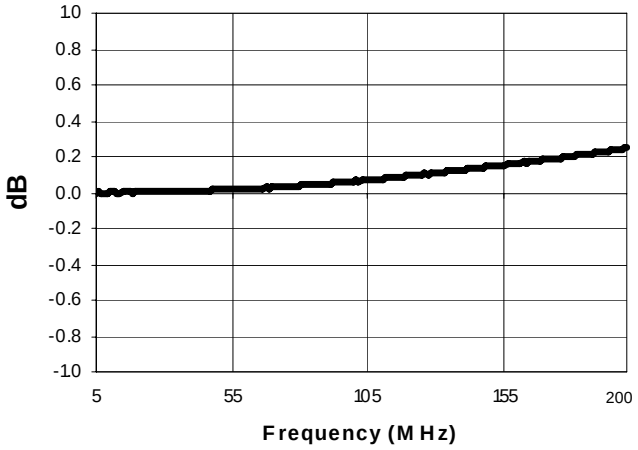
Insertion Loss 1 (through pin 5 to pin 1)



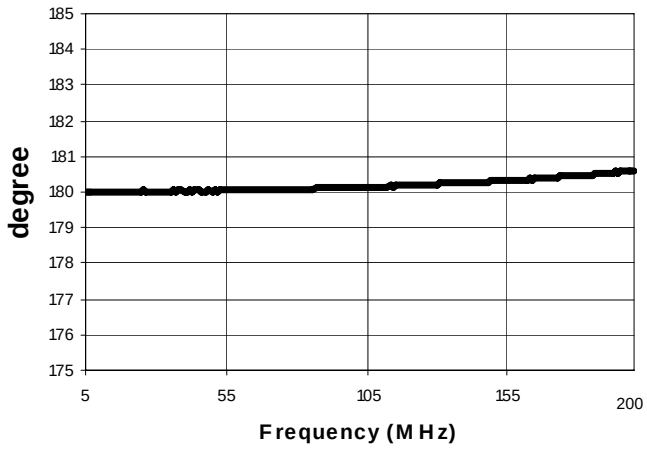
Insertion Loss 2 (coupled pin 5 to pin 3)



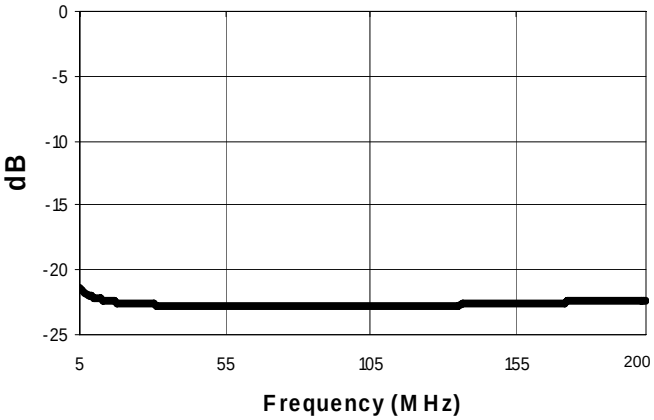
Amplitude Unbalance



Phase Balance



Input Return Loss



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