tyco Electronics

RoHS Compliant

MACOM

4:1 Flux Coupled Transformer
1-650MHz

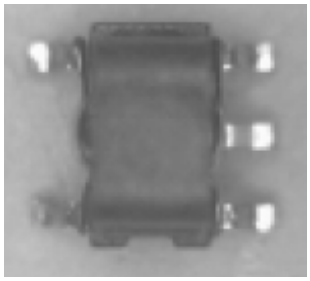
MABACT0064
V1P

Features

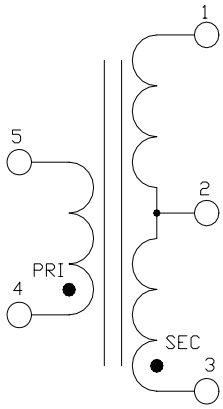
- Surface Mount
- 4:1 Impedance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS version of MABES0031
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

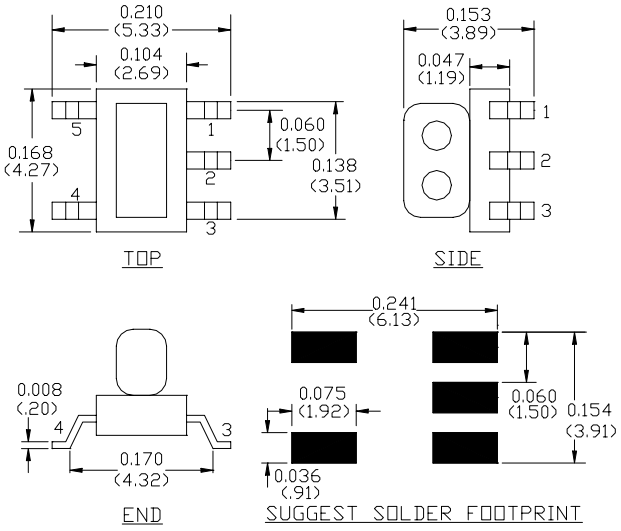
M/ACom's MABACT0064 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Schematic



Case Style: SM-138



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

Pin Configuration

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

Ordering Information

Part Number	Package
MABACT0064TR	2000 piece reel
MABA-007948-CT64TB	Customer test board

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

* 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 = 50Ω

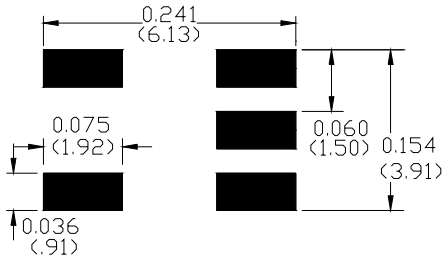
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	10 - 200 MHz 1 - 450 MHz 450 - 650 MHz	dB dB dB	- - -	0.7 1.5 3.0	1.0 2.0 3.5
Amplitude Unbalance (Nominal 0dB)	10 - 200 MHz 1 - 650 MHz	dB dB	- -	±0.1 ±0.6	±0.25 ±1.0
Phase Unbalance (Nominal 180º)	10 - 200 MHz 1 - 500 MHz 500 - 600 MHz	º º º	- - -	±1.0 ±3.0 ±7.0	±2.0 ±5.0 ±10.0

Absolute Maximum Ratings [1,2]

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	30mA
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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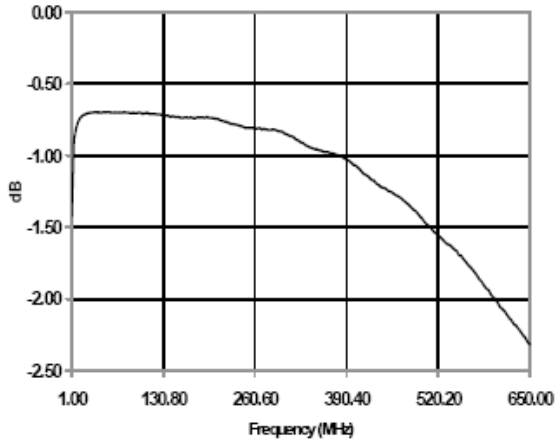
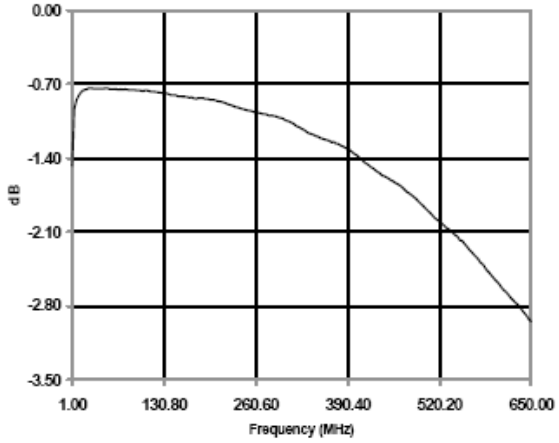
Typical Performance Curves: T_A = 25°C, Z_0 = 50Ω

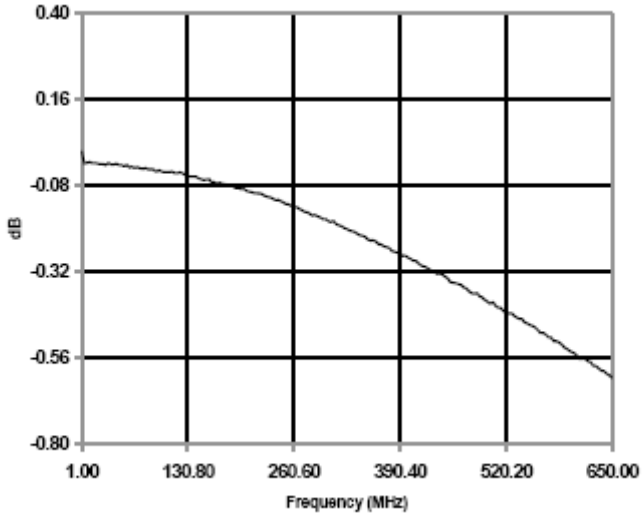
Insertion Loss 1 (PRI to SEC DOT, pin 5 to pin 3)



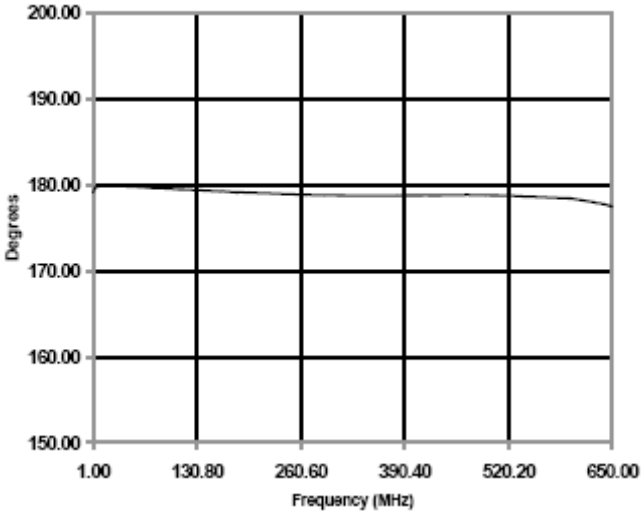
Insertion Loss 2 (PRI to SEC, pin 5 to pin 1)



Amplitude Unbalance



Phase Balance



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