MABACT0064

Tyco Electronics

Transformer, 4:1 Flux coupled balun transformer
1 to 650 MHz

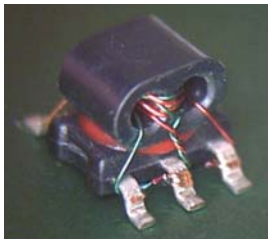
M/A-COM Products
Released, Rev. V2

Features

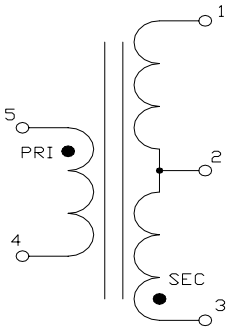
- Surface mount
- 4:1 Impedance ratio
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- RoHS* compliant and lead-free
- Available on tape and reel.

Description

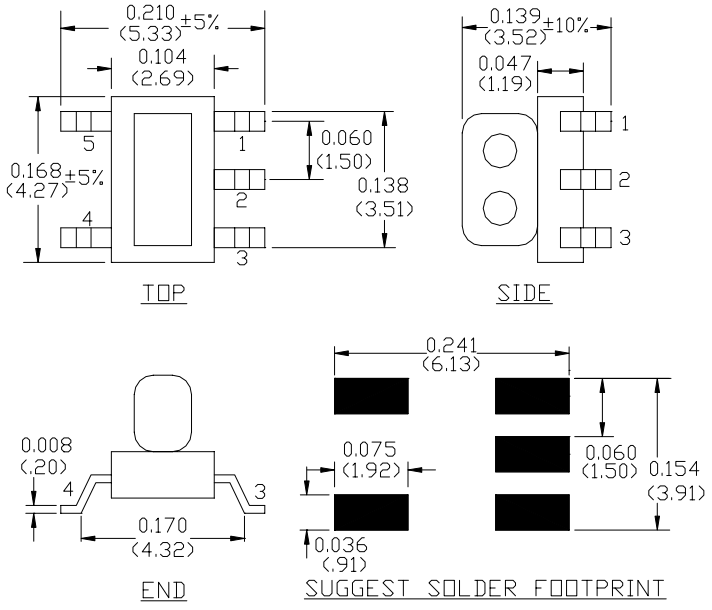
M/A Com's MABACT064 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Schematic



Case style: SM-138



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

Pin configuration

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

Ordering information

Part number	Description
MABACT0064	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

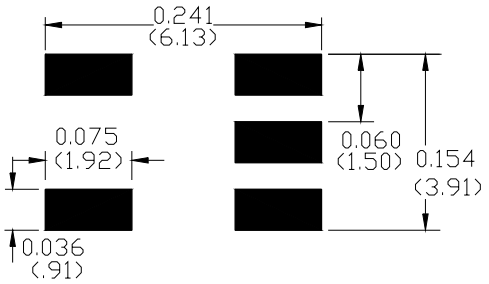
Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	10 - 200 MHz 1 - 450 MHz 450 - 650 MHz	dB dB dB	- - -	0.7 1.5 3.0	1.0 2.0 3.5
Amplitude Unbalance (Nominal 0dB)	10 - 200 MHz 1 - 650 MHz	dB dB	- -	±0.1 ±0.6	±0.25 ±1.0
Phase Unbalance (Nominal 180º)	10 - 200 MHz 1 - 500 MHz 500 - 600 MHz	º º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

Absolute maximum ratings

Parameter	Absolute maximum
Max input power	250mW
DC current	200mA
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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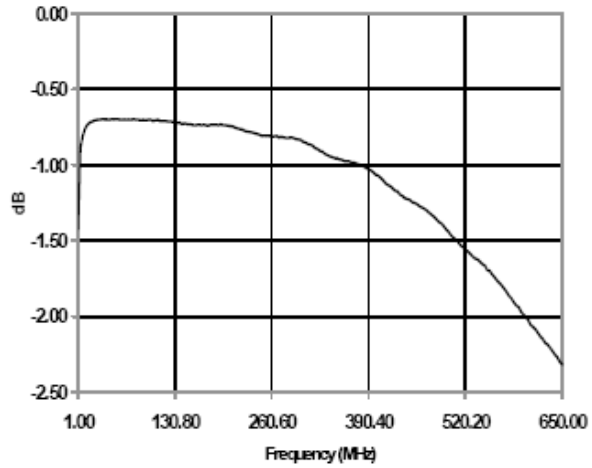
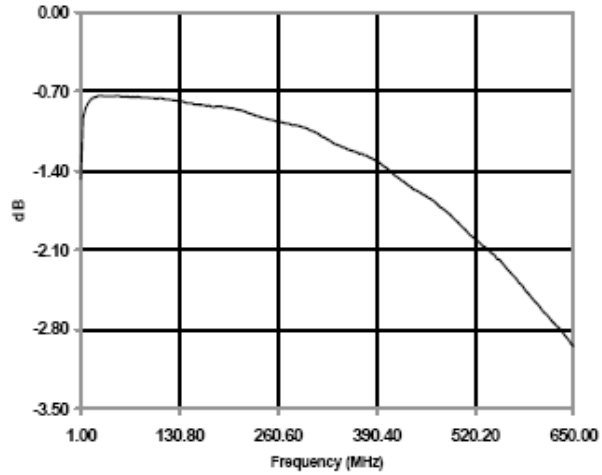
Typical Performance Curves: T_A = 25°C, Z_0 = 50Ω

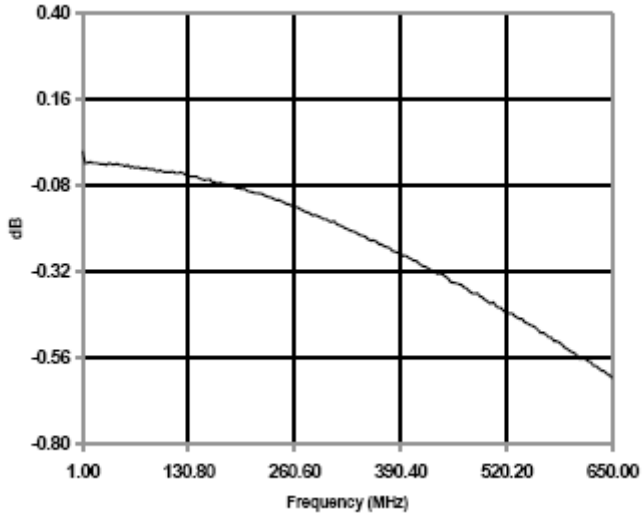
Insertion Loss 1
(PRI to SEC DOT, pin 5 to pin 3)



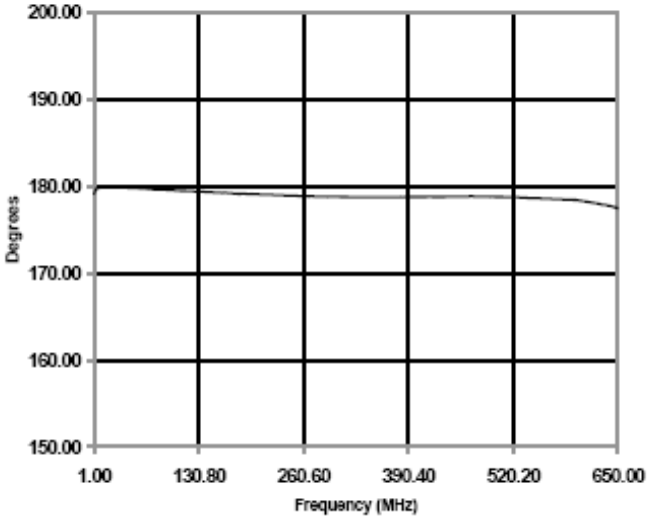
Insertion Loss 2
(PRI to SEC, pin 5 to pin 1)



Amplitude Unbalance



Phase Balance



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