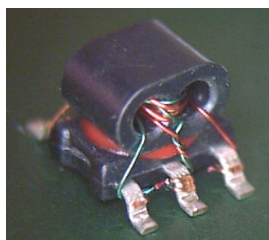


Features

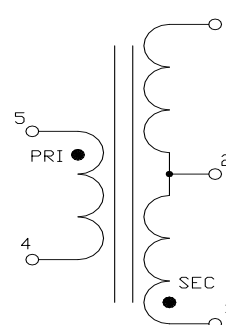
- Surface mount
- 4:1 Impedance ratio
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- RoHS* compliant and lead-free
- Available on tape and reel.

Description

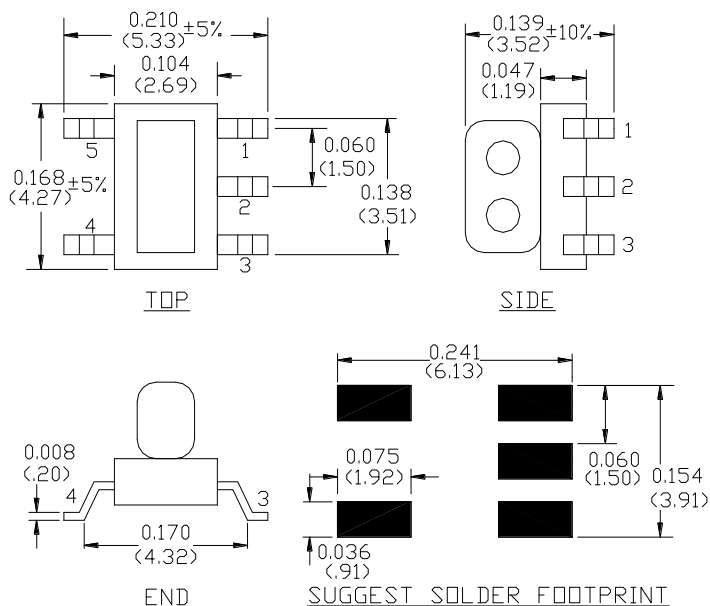
M/A Com's MABACT064 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Schematic



Case style: SM-138



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.

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

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

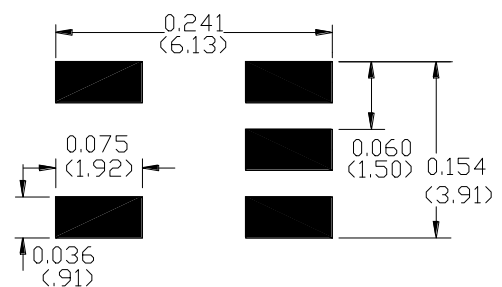
| Parameter | Test Conditions | Units | Min | Typ | Max |
|--------------------------------------|-----------------|-------|-----|-----------|------------|
| Insertion Loss | 10 - 200 MHz | dB | - | 0.7 | 1.0 |
| | 1 - 450 MHz | dB | - | 1.5 | 2.0 |
| | 450 - 650 MHz | dB | - | 3.0 | 3.5 |
| Amplitude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

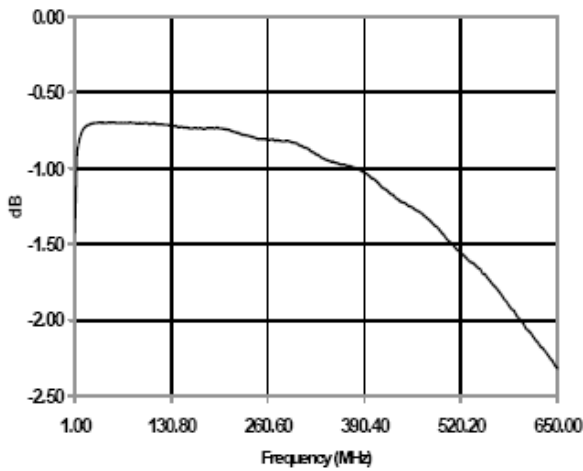
- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration

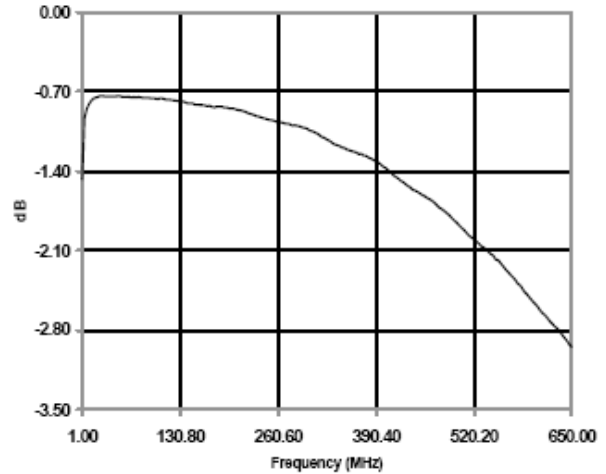


Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

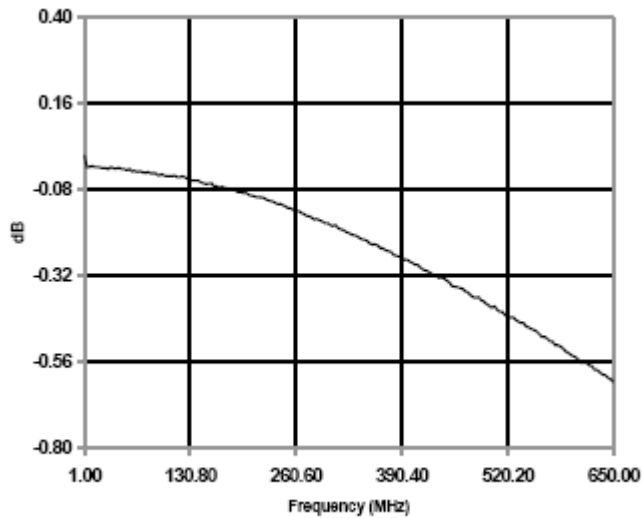
Insertion Loss 1
(PRI to SEC DOT, pin 5 to pin 3)



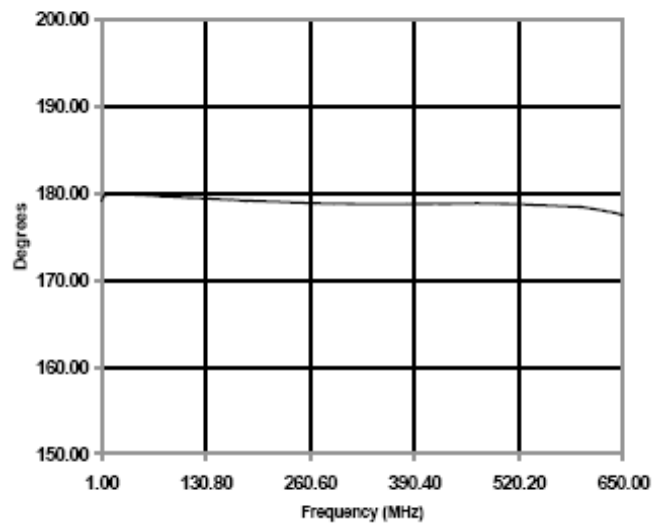
Insertion Loss 2
(PRI to SEC, pin 5 to pin 1)



Amplitude Unbalance



Phase Balance



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