

MABACT0065



4:1 Transmission Line Transformer 500 - 3000 MHz

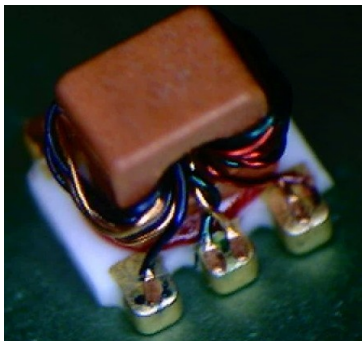
Rev. V3

Features

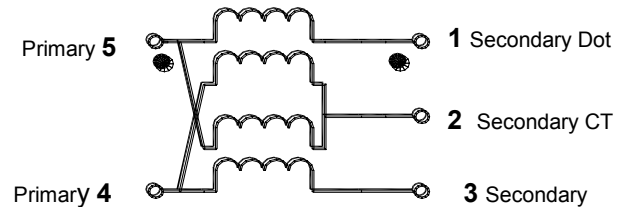
- Surface mount
- Wide frequency range
- 4:1 Impedance Ratio, unbalanced to unbalanced
- CT on Secondary
- Pb Free
- RoHS* version of ETC1.6-4-2-3
- 260°C reflow compatible.

Description

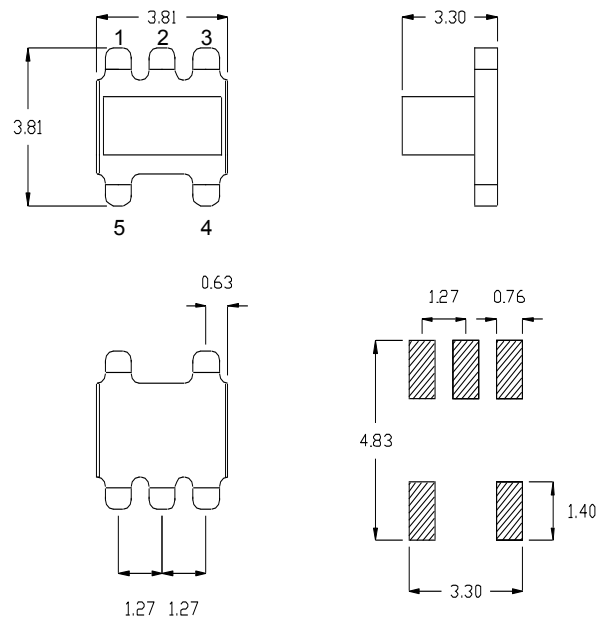
M/A-COM Technology Solutions MABACT0065 is a 4:1 RF transmission line step-up transformer in a low cost, surface mount package. Ideally suited for high volume cellular and wireless applications. Typical applications include single to balanced mode conversion and impedance matching.



Schematic



Component Dimensions



Dimensions in mm. Tolerance: .xx ± .15
Drawing not to scale

Pin Configuration

Pin No.	Function
1	Secondary Dot (output 1)
2	Secondary centre tap (gnd)
3	Secondary (output 2)
4	Primary (ground)
5	Primary Dot (input)

1

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400
• India Tel: +91.80.43537383 • China Tel: +86.21.2407.1588

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Rev. V3

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

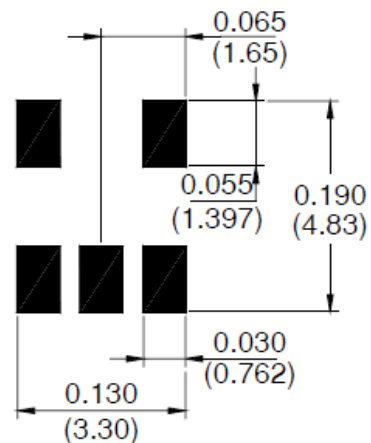
Parameter	Frequency	Units	Min	Typ	Max	Mean(x)	Sigma
RF Frequency	500 - 3000	MHz	—	—	—	—	—
Insertion Loss	500 - 750	dB	—	—	3.0	—	—
	750 - 1200	dB	—	—	1.0	0.22	0.159
	1200 - 3000	dB	—	—	3.0	—	—

Recommended Maximum Ratings^{1,2}

Parameter	Value
DC Power	250 mW
DC Current	30 mA
Operating Temperature	-30°C to +85°C
Storage Temperature	-30°C to +85°C

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

Recommended PCB Configuration



MABACT0065

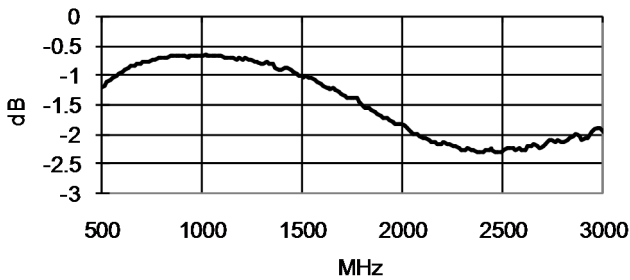


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500 - 3000 MHz

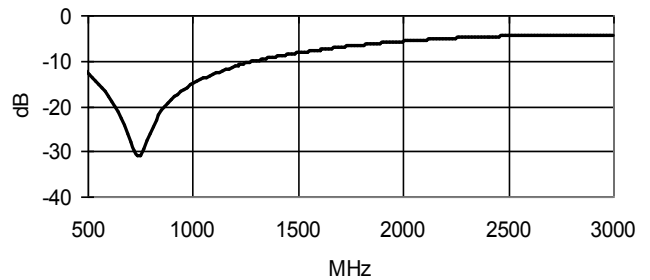
Rev. V3

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

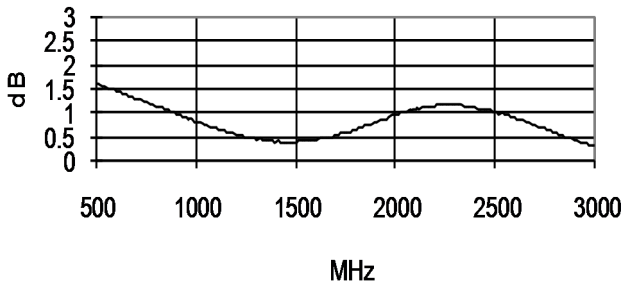
Insertion Loss



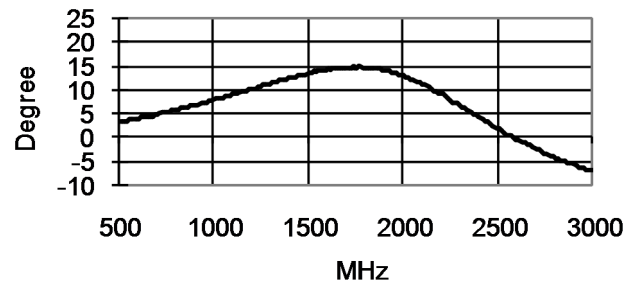
Input Return Loss



Amplitude Unbalance



Phase Unbalance



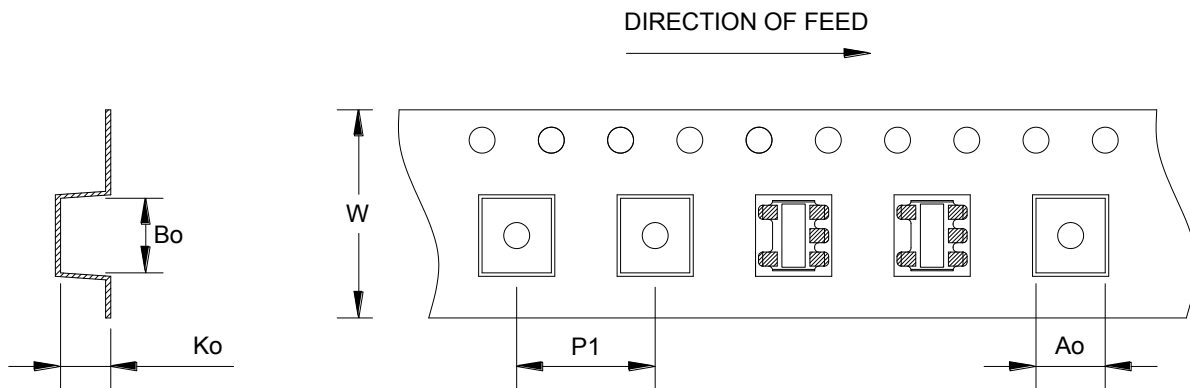
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Tape & Reel Information



Item	Dimension
Ao	4.10mm +/- 0.1mm
Bo	4.20mm +/- 0.1mm
Ko	3.40mm +/- 0.1mm
W	12.00mm +/- 0.3mm
P1	8.00mm +/- 0.1mm

Ordering Information

Part number	Description
MABACT0065	2000 piece reel