

Features

- Surface Mount
- 2:1 Impedance
- Excellent amplitude and phase balance
- Pb Free
- RoHS* Compliant
- Tape and Reel.

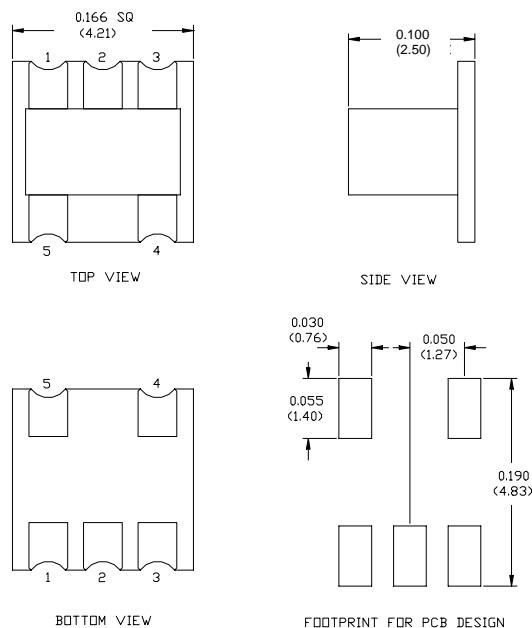
Description

M/A-COM Technology Solutions MABACT0048 is a 2:1 RF Flux Coupled 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.

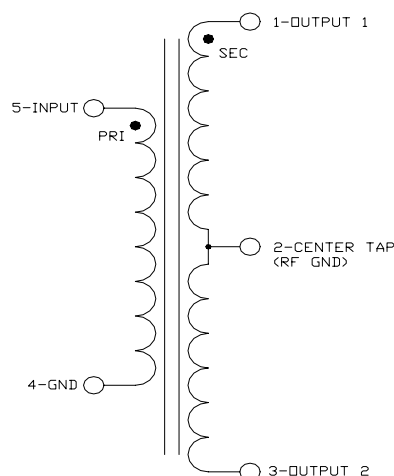


Component Dimensions



Dimensions in inches [mm].
Tolerance inches: .xx ± .02, .xxx ± .010, unless otherwise stated. Drawing not to scale.

Schematic



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)

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

2:1 Flux Coupled Transformer
5-200MHz

Rev. V1

Electrical Specifications: $T_A = 25^{\circ}\text{C}$, $Z_0 = 75\Omega$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss	5 - 65 MHz	dB	-	0.25	0.4
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 180°)	5 - 50 MHz	$^{\circ}$	-	± 0.00	± 2.00
Input Return Loss	5 - 10 MHz	dB	15	20	-
Input Return Loss	10 - 200 MHz	dB	18	22	-

Recommended Maximum Ratings^{1,2}

Parameter	Value
Max Input Power	250mW
DC current	30mA
Operating Temperature	-40°C to $+85^{\circ}\text{C}$
Storage Temperature	-55°C to $+100^{\circ}\text{C}$

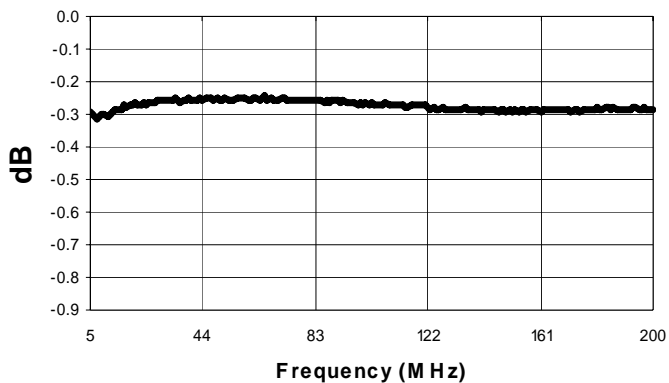
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

2:1 Flux Coupled Transformer 5-200MHz

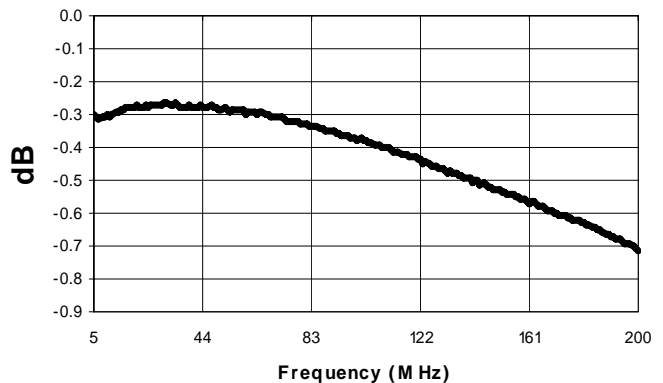
Rev. V1

Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$

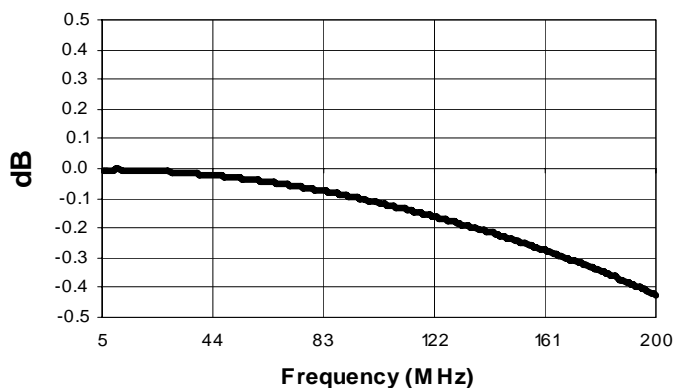
Insertion Loss (coupled pin 5 to pin 3)



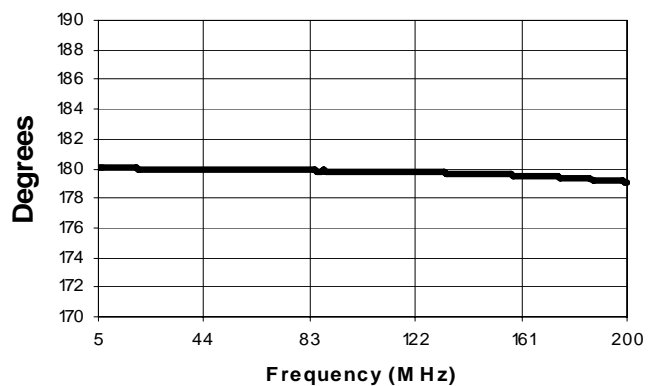
Insertion Loss (through pin 5 to pin 1)



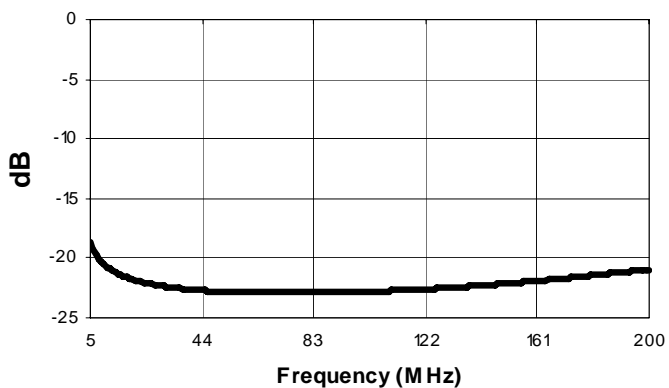
Amplitude Unbalance



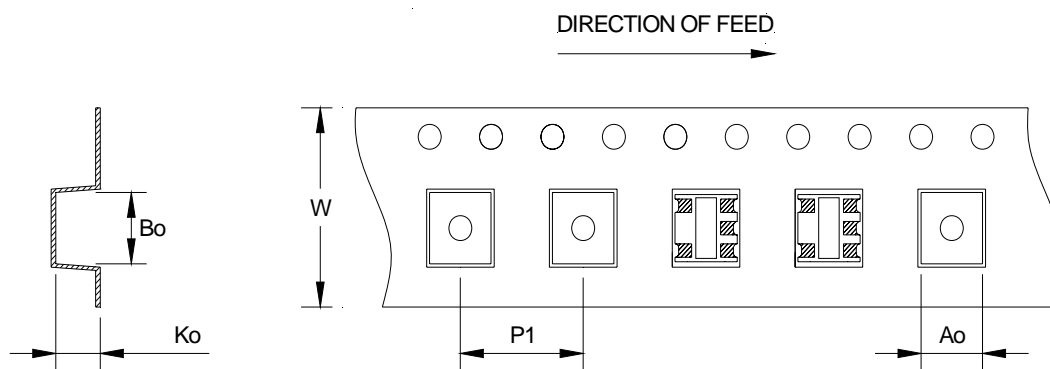
Phase Balance



Input Return Loss



Tape & Reel Information



Item	Dimension
Ao	4.50mm +/- 0.1mm
Bo	4.50mm +/- 0.1mm
Ko	2.73mm +/- 0.1mm
W	12.00mm +/- 0.3mm
P1	8.00mm +/- 0.1mm

Ordering Information

Part Number	Package
MABACT0048TR	2000 piece reel