

MABACT0034



Transformer, 1:1 Transmission Line Transformer
4.5 to 3000 MHz

Rev. V3

Features

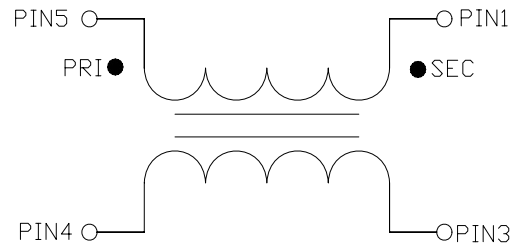
- 1:1 Impedance ratio
- Surface mount
- Available on tape and reel
- 260°C reflow compatible
- Excellent temperature stability
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems

Description

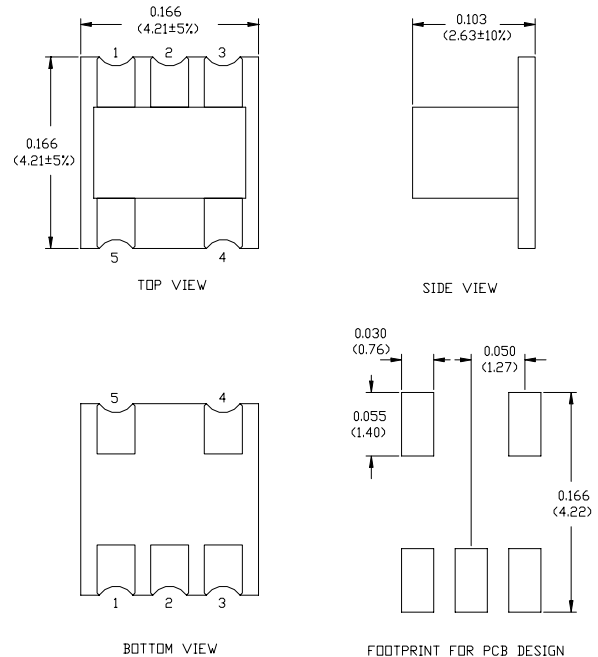
M/A-Com Technology Solutions MABACT0034 is a 1:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Component dimensions



Pin Configuration

Pin no.	Function
1	Secondary Dot
2	Not connected
3	Secondary
4	Primary
5	Primary Dot

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

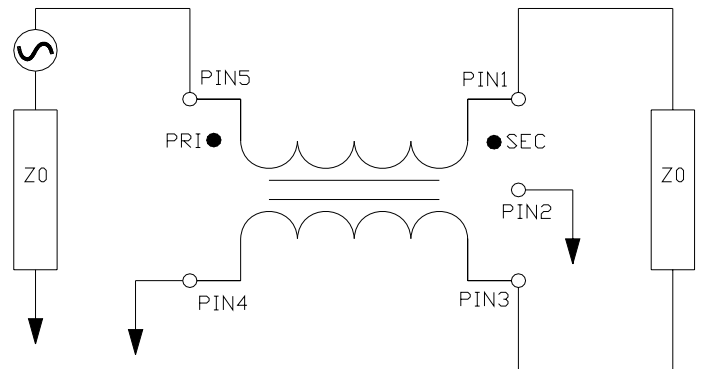
Electrical Specifications: $T_A = 25^\circ\text{C}$, 0dBm, $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

Parameter	Frequency	Units	Min	Typ	Max
Insertion Loss 1	4.5 - 1000MHz	dB	-	0.8	1.0
	1000 - 2000MHz	dB	-	1.6	2.0
	2000 - 3000 MHz	dB	-	2.5	3.5
Amplitude Balance (Nominal 0dB)	4.5 - 3000 MHz	dB	-	± 0.50	± 1.0
Phase Balance (Nominal 180°)	4.5 - 3000 MHz	°	-	± 10.0	± 20.0

Recommended Maximum Ratings

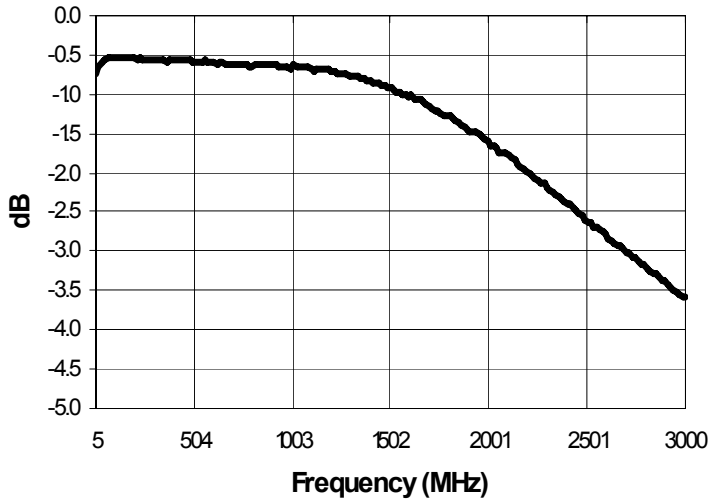
Parameter	Value
Input power	At least 250mW
DC current	At least 30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

Application Circuit

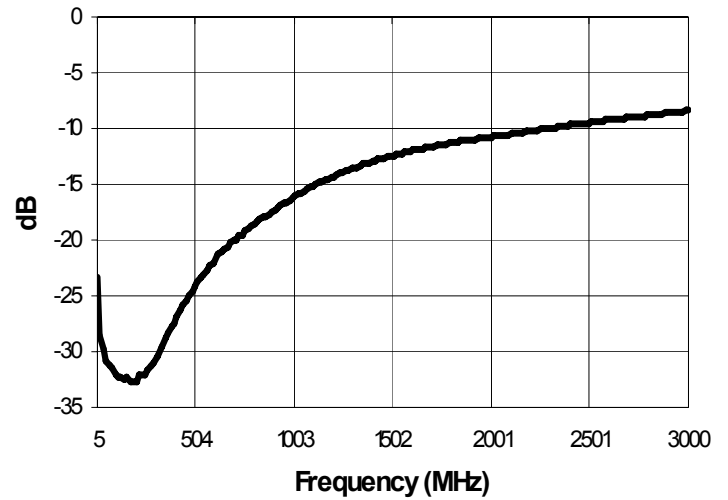


Typical Performance Curves: $T_A = 25^\circ\text{C}$, 0dBm , $Z_0 = 75\Omega$, $P_{in} = 0\text{dBm}$

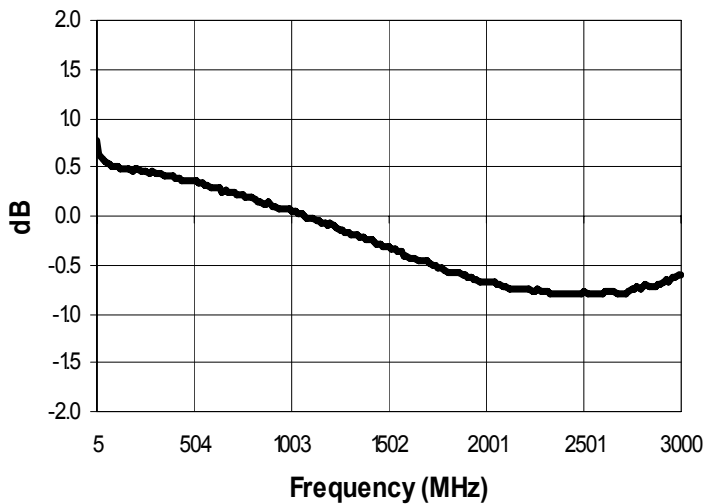
Insertion Loss



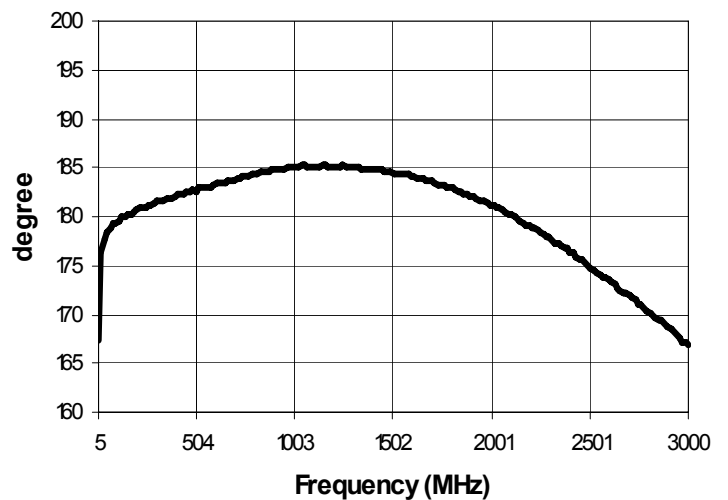
Return Loss: Input



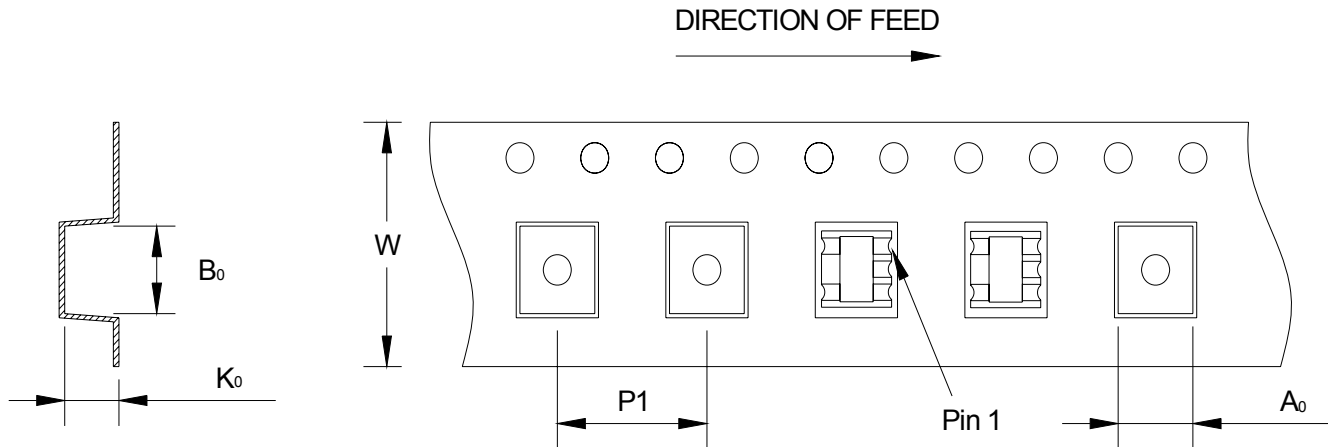
Amplitude Balance



Phase Balance



Tape & Reel Information



Item	Dimension
Ao	4.50mm +/- 0.1mm
Bo	4.50mm +/- 0.1mm
Ko	2.73mm +/- 0.1mm
W	12.0mm +/- 0.3mm
P1	8.0mm +/- 0.1mm

Ordering Information

Part number	Description
MABACT0034	2000 piece reel