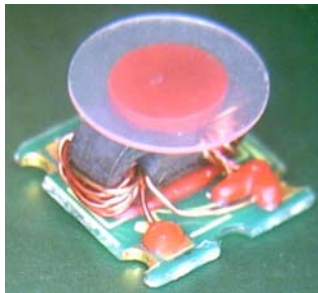


Features

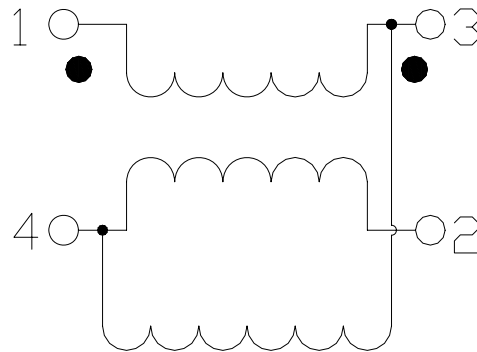
- SMT unit
- 1:1 impedance
- Excellent temperature stability
- RoHS* Compliant
- Pb free version of MABACT0051
- Available on Tape and Reel.

Description

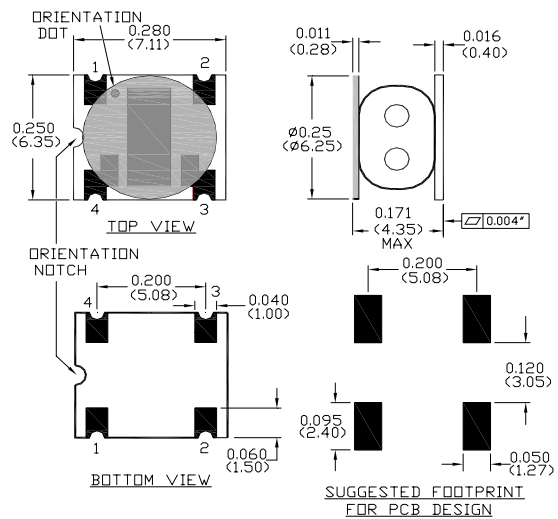
M/A-COM Technology Solutions MABA-008483-CT1760 is a low cost welded SMT 1:1 Transmission line transformer designed for high volume CATV Broadband applications. Suitable for use in 50 Ohm and 75 Ohm systems



Schematic



Component Dimensions:



Pin Configuration

Function	Pin Number
Primary Dot (input)	1
Primary (ground)	4
Secondary Dot (o/p coupled)	2
Secondary (o/p through)	3

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

Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

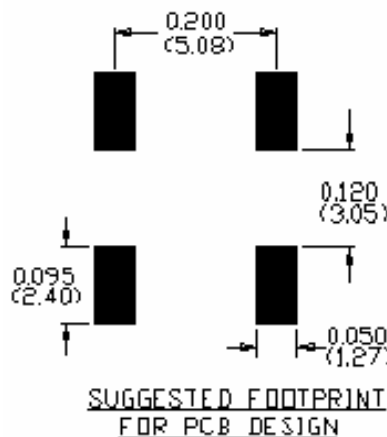
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Range: 50-1200 MHz					
Insertion Loss 1 (Through) Pin 3 to pin 1	50 MHz	dB	—	0.13	0.33
	870 MHz	dB	—	0.53	0.93
	1002 MHz	dB	—	0.63	1.18
	1200 MHz	dB	—	0.83	1.93
Insertion Loss 2 (Coupled) Pin 2 to pin 1	50 MHz	dB	—	0.43	0.47
	870 MHz	dB	—	0.33	0.63
	1002 MHz	dB	—	0.43	0.78
	1200 MHz	dB	—	0.63	1.33
Amplitude Balance	50 MHz	dB	—	0.3	-0.6
	870 MHz	dB	—	-0.1	+0.7
	1002 MHz	dB	—	-0.2	+0.7
	1200 MHz	dB	—	-0.2	+0.8
Phase Balance	50 - 1002 MHz	°	—	1.2	± 4.0
	1002 - 1200 MHz	°	—	3.2	± 8.0
Input Return Loss	50 - 500 MHz	dB	18.0	23.0	—
	500 - 1002 MHz	dB	17.5	19.0	—
	1002 - 1200 MHz	dB	11.0	18.0	—

Recommended Maximum Ratings ^{1,2}

Parameter	Value
RF Power	250 mW
DC Current	30 mA
Operating/Storage Temperature	-40° C to +85° C

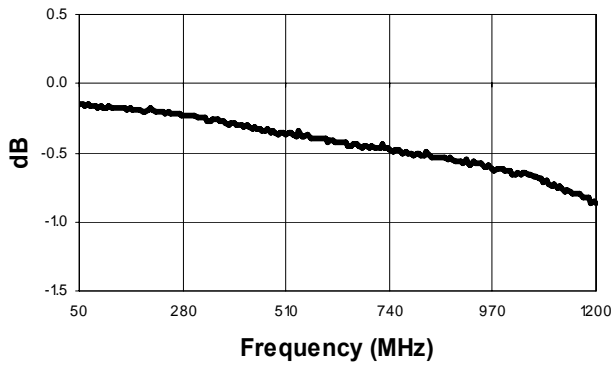
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM Technology Solutions does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration

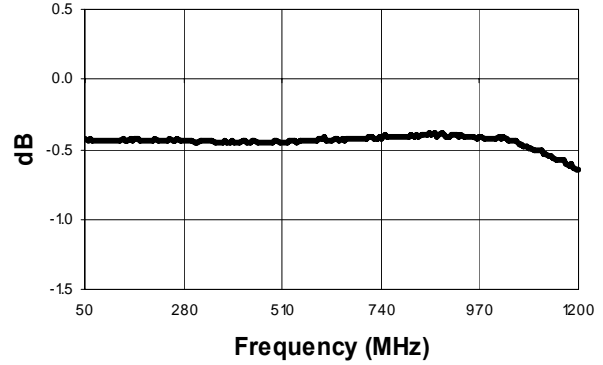


Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 75\Omega$ ¹

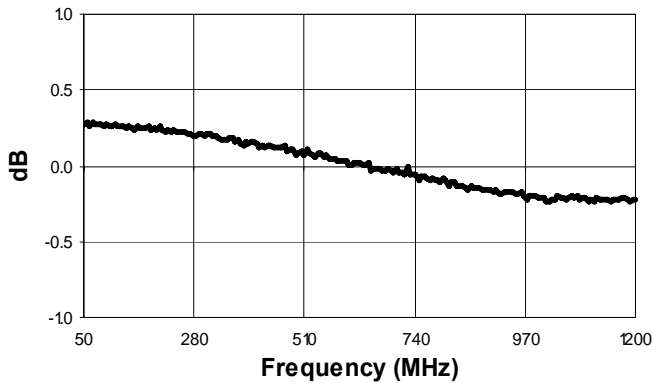
Insertion Loss 1 (thru): pin 3-1



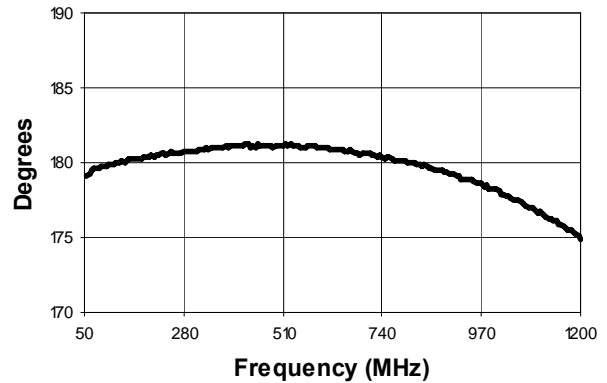
Insertion Loss 2 (coup): pin 2-1



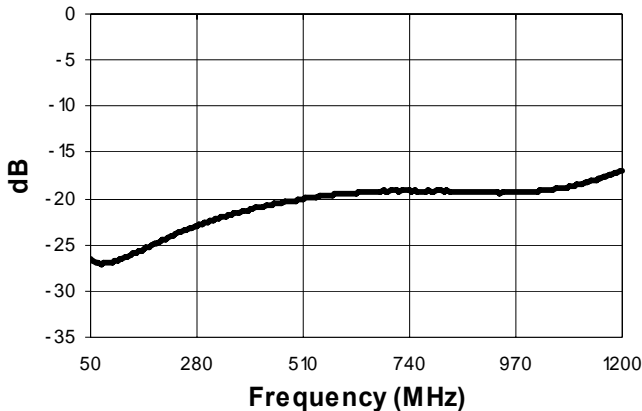
Amplitude Balance



Phase Balance

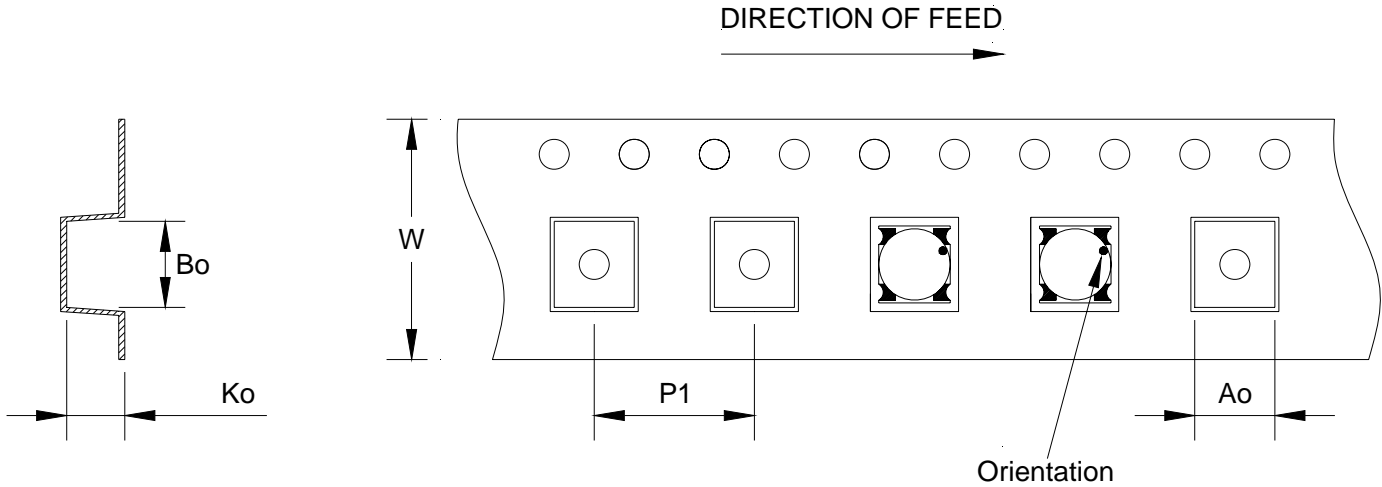


Return Loss: Input



Note: Graphs show Min Loss Pad value, 10.67dB subtracted from data.

Tape Specification:



Item	Dimension
Ao	6.80mm +/-0.1mm
Bo	7.60mm +/-0.1mm
Ko	5.30mm +/-0.1mm
W	16.00mm +/-0.3mm
P1	12.00mm +/-0.1mm

Ordering Information

Part Number	Package
MABA-008483-CT1760	900
MABA-008483-CT17TB	Customer Test Board