

MABA-009232-CT4A4B

Transformer, 4:1 transmission line balun
5 to 1200 MHz

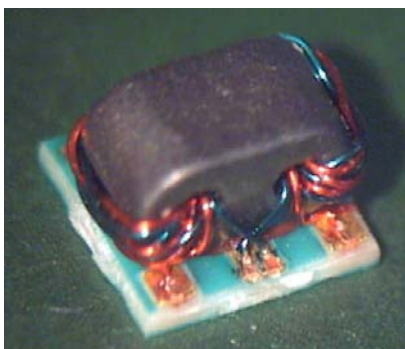
M/A-COM Products
Released, Rev. V1

Features

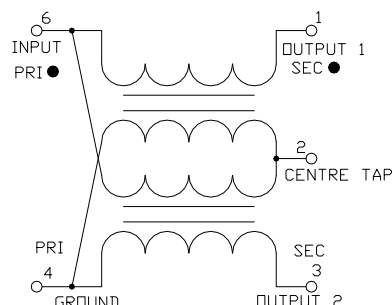
- Surface mount
- 4:1 Impedance ratio
- Can be used in both 50Ω and 75Ω systems
- 260°C reflow compatible
- RoHS* compliant, lead free
- Available on tape and reel.

Description

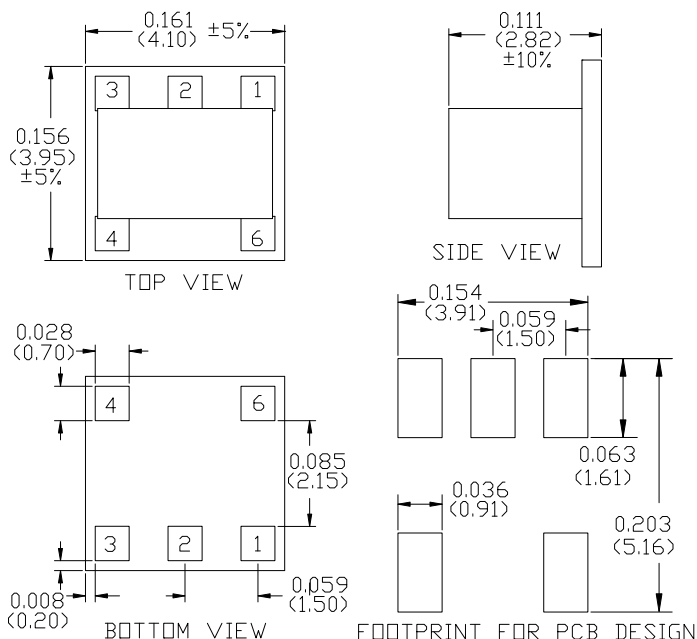
M/A Com's MABA-009232-CT4A4B is a 4:1 RF transmission line transformer in a low cost, surface mount package. Ideally suited for broadband CATV applications.



Schematic



Case style: SM-187



Pin configuration

Pin no.	Function
1	Secondary dot (Output 1)
2	Centre tap (Ground)
3	Secondary (Output 2)
4	Primary (Ground)
6	Primary dot (Input)

Note: Reference Application Note **M513** for reel size information.

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

Ordering information

Part number	Description
MABA-009232-CT4A4B	2000 piece reel
MABA-009232-CT4ATB	Customer Test Board

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

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

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss 1 (Pin 6 to 1)	5 - 450 MHz	dB	-	0.8	1.2
	450 - 1200 MHz	dB	-	1.3	2.6
Insertion Loss 2 (Pin 6 to 3)	5 - 450 MHz	dB	-	0.8	1.2
	450 - 870 MHz	dB	-	1.3	2.5
	870 - 1200 MHz	dB	-	2.2	3.8
Amplitude Unbalance (Nominal 0dB)	5 - 750 MHz	dB	-	0.05	± 1.0
	750 - 1200 MHz	dB	-	0.6	± 2.6
Phase Unbalance (Nominal 180°)	5 - 50 MHz	°	-	0.4	± 2
	50 - 870 MHz	°	-	3.8	± 15
	870 - 1200 MHz	°	-	5.4	± 18
Input Return Loss	5 - 50 MHz	dB	15	23	-
	50 - 650 MHz	dB	10	17	-
	650 - 1200 MHz	dB	7	11	-

Absolute maximum ratings

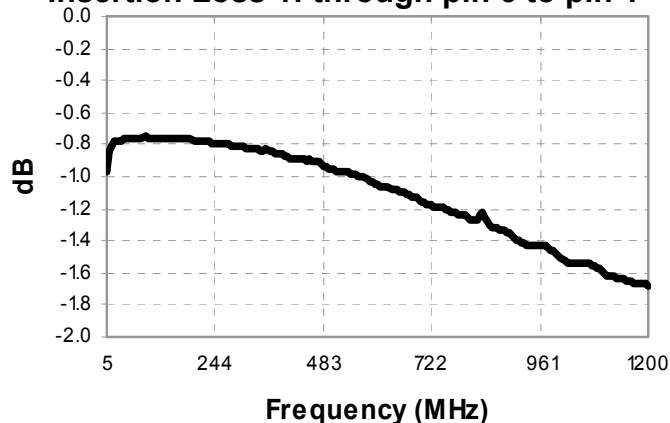
Parameter	Absolute maximum
Max input power	250mW
DC current	200mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

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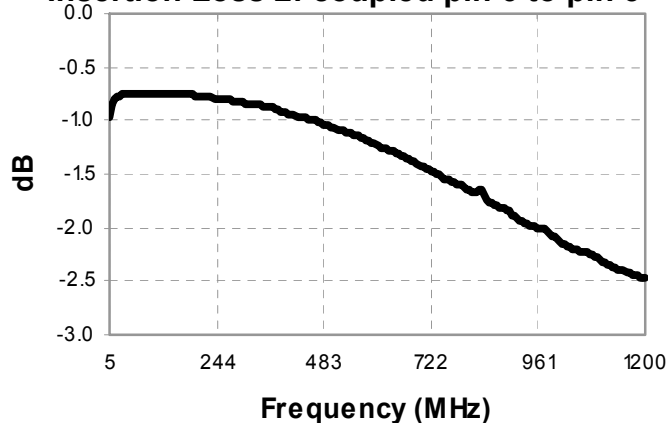
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

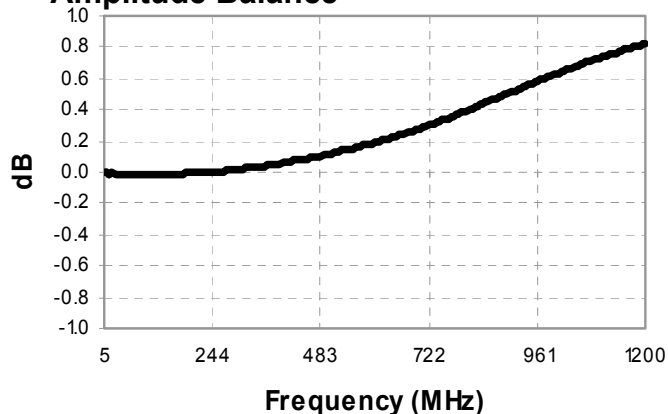
Insertion Loss 1: through pin 6 to pin 1



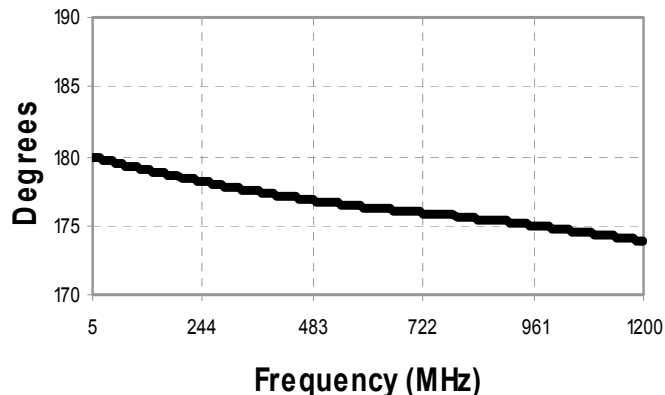
Insertion Loss 2: coupled pin 6 to pin 3



Amplitude Balance



Phase Balance



Return Loss: Input

