

4:1 Flux Coupled Step-up Transformer 1-350MHz

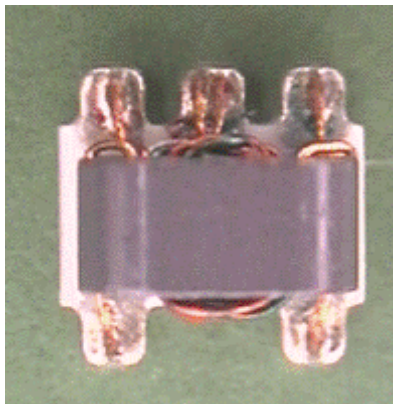
Rev. V2

Features

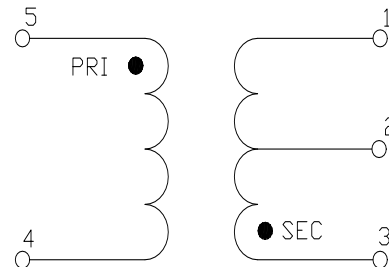
- n Surface Mount
- n 4:1 Impedance
- n 260°C Reflow Compatible
- n RoHS* Compliant
- n RoHS version of ETC4-1 and MABACT0011.
- n Available on Tape and Reel. Reel quantity 2000

Description

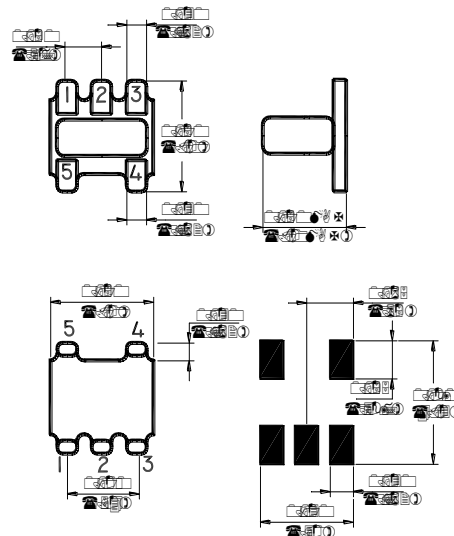
MABA-007493-CF4160 is a 4:1 flux coupled step-up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Schematic



Case Style: SM-22



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

Pin Configuration

Pin No.	Function
1	Secondary
2	Secondary CT
3	Secondary Dot
4	Primary
5	Primary Dot

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

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

Ordering Information

Part Number	Package
MABA-007493-CF4160TR	2000 piece reel
MABA-007493-CF41TB	Customer test board

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

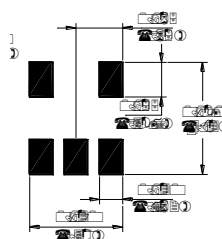
Parameter	Test Conditions	Units	Min	Typ	Max	Mean (x)	Sigma (x)
Insertion Loss 1	5 - 100 MHz	dB	-	0.8	1.0	-	-
	2 - 300 MHz	dB	-	1.6	2.0	1.21	0.032
	1 - 350 MHz	dB	-	2.0	3.0	-	-
Amplitude Unbalance	5 - 100 MHz	dB	-	-	± 0.1	-	-
	1 - 350 MHz	db	-	-	± 0.5	-	-
Phase Unbalance	5 - 100 MHz	$^\circ$	-	-	± 1.0	-	-
	1 - 350 MHz	$^\circ$	-	-	± 5.0	-	-

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum
RF Power	250mW
DC current	30mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C

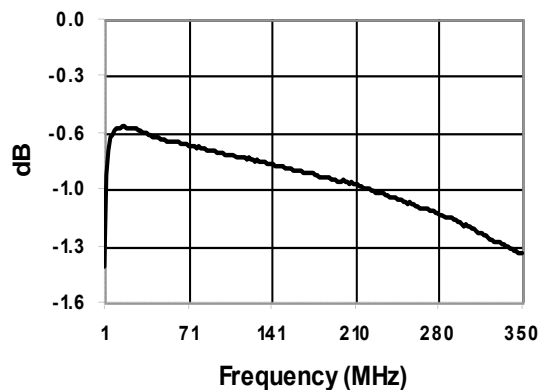
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

Recommended PCB Configuration

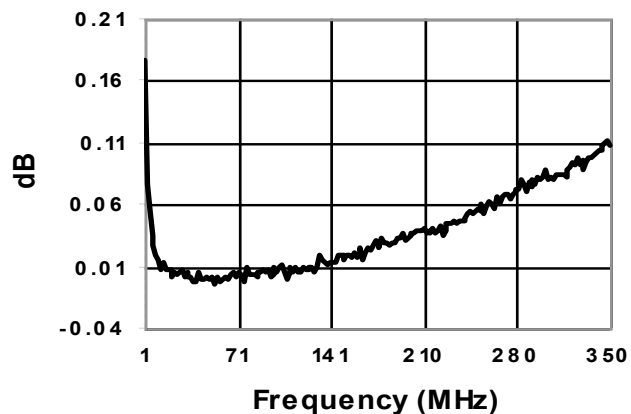


Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

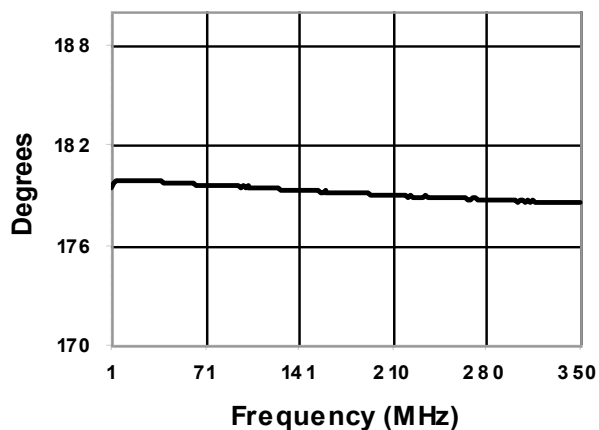
Insertion Loss



Amplitude Unbalance



Phase Balance



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