

Balun Transformer(0.4-500MHz)

Features

- Surface mount
- Impedance ratio: 1:2
- Centre tap on secondary
- RoHS compliant and Pb free
- Available on tape and reel

Description

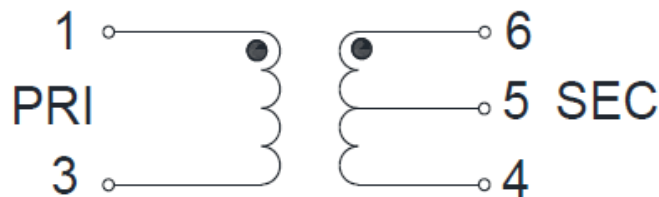
SCOPE

- MCBT2-1-133 is a 1:2 balun transformer in a SMT package.

APPLICATIONS

- Ideally suitable for CATV broadband applications.

Functional Schematic



Pin Configuration

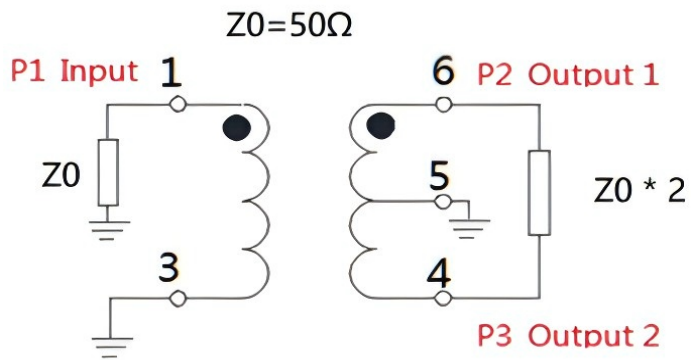
Pin #	Function	Pin #	Function
1	Primary	4	Secondary Dot
2	Not Used	5	Secondary Centre Tap
3	Primary Dot	6	Secondary

ELECTRICAL SPECIFICATIONS@25°C

Parameters (P#: ENA PORT)	frequency band	Min.	Typ.	Max.	Unit
Port Impedance, Z0 (P1 / P2 / P3)			50/50/50		Ohm
Insertion Loss	1-200MHz		0.5	1.0	dB
	0.6-400MHz		0.7	2.0	dB
	0.4-500MHz		0.9	3.0	dB
Return Loss	1-200MHz	15.0	18.0		dB
	0.6-400MHz	8.0	12.0		
	0.4-500MHz	5.0	11.0		dB
Amplitude Balance	1-400MHz		0.6	±1	dB
	0.4-500MHz		0.9	±1.5	dB
Phase Balance (ref value 180 °)	1-400MHz		4	±7	°
	0.4-500MHz		6	±9	°
CMRR	1-400MHz	22.0	26.0		dB
	0.4-500MHz	20.0	23.0		dB

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Application & Test Circuit



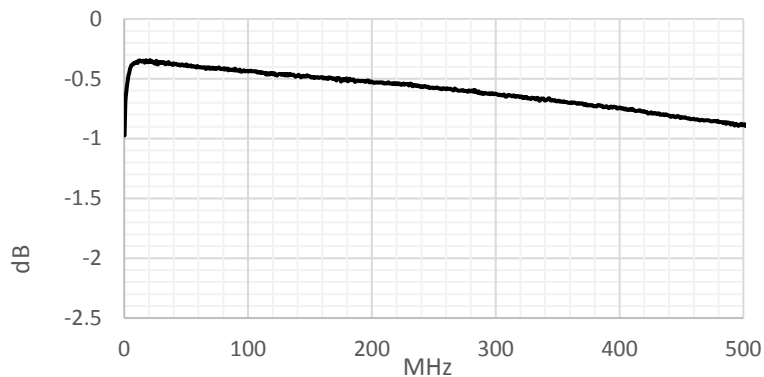
Absolute Maximum Ratings

Parameter	Value
RF Power	250mW
DC Current	240mA
Operating Temperature Range	-40 to 85°C

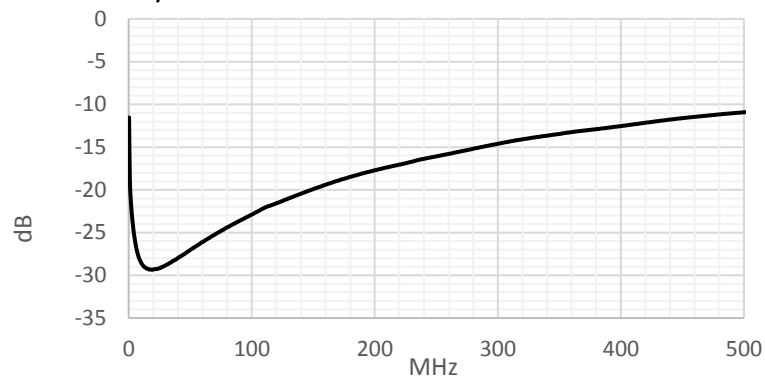
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Test Curve

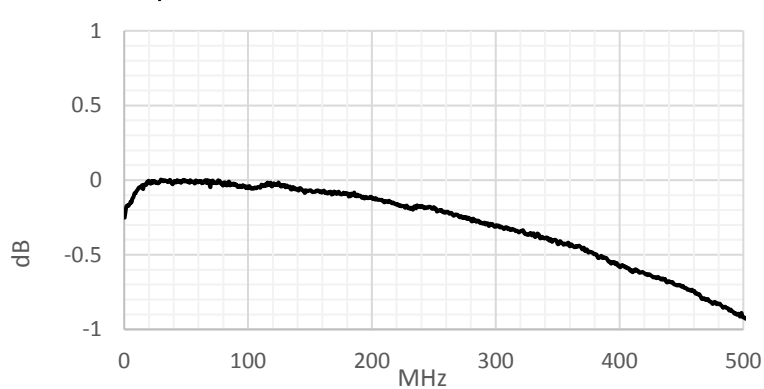
Insertion Loss



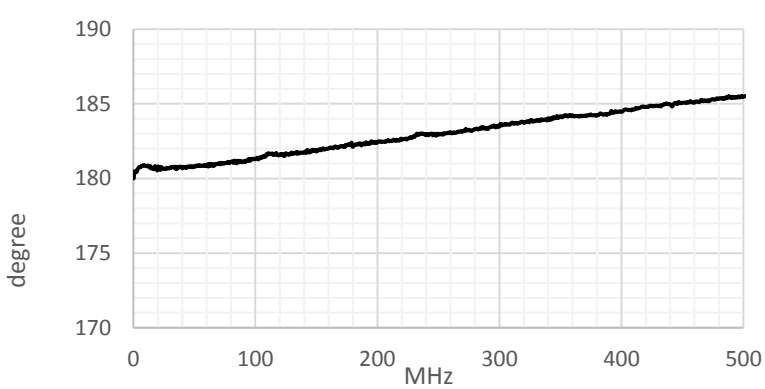
Input Return Loss



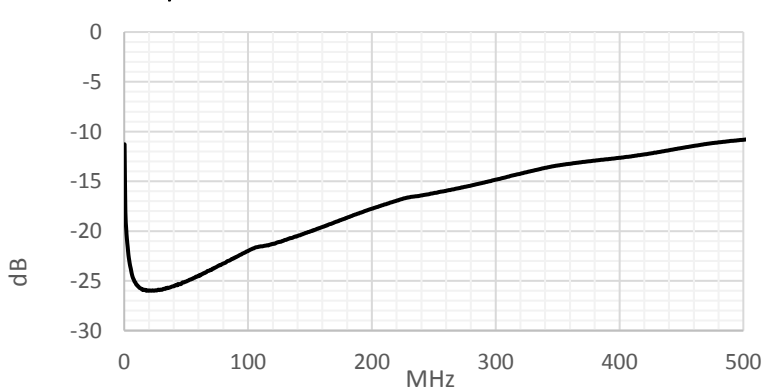
Amplitude Balance



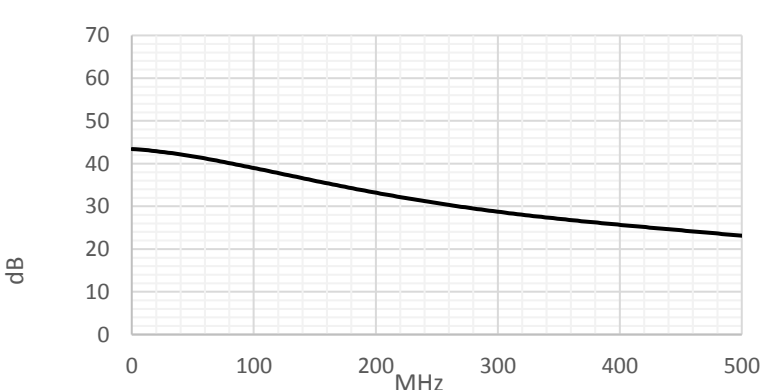
Phase Balance



Output Return Loss

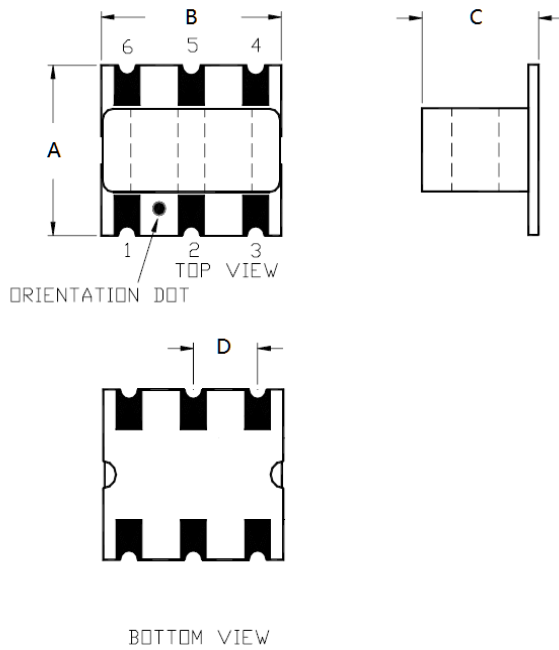


CMRR

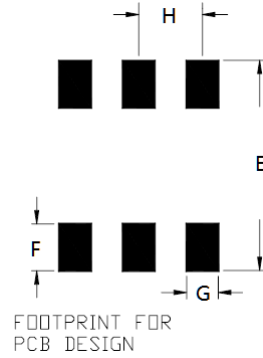


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Dimensions



Land Pattern



FOOTPRINT FOR PCB DESIGN

A	B	C
6.40	7.30	2.70
D		
2.54		

E	F	G
7.62	1.75	1.27
H		
2.54		

Unless otherwise stated dimensions are in mm

Tolerance: .xx ± 0.25, .xxx ± 0.05