

Balun Transformer(0.3-200MHz)

Features

- Surface mount
- Impedance ratio: 1:1
- Available on tape and reel
- RoHS compliant and Pb free
- 260°C reflow compatible
- CT on Secondary

Description

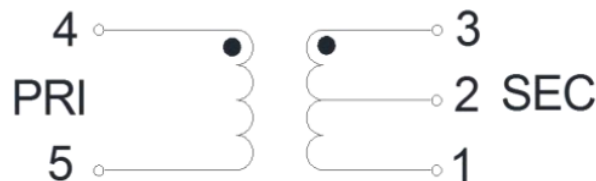
SCOPE

•MCBT1-1-040 is a 1:1 Balun transformer in a SMT package.

APPLICATIONS

- Ideally suited for high volume cellular and wireless applications.

Functional Schematic



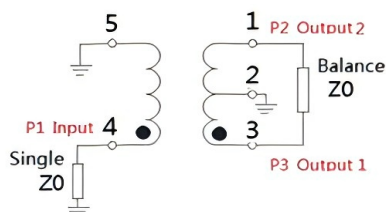
Pin Configuration

Pin #	Function	Pin #	Function
1	Secondary	4	Primary Dot
2	Secondary CT	5	Primary
3	Secondary Dot		

Electrical Specifications@ 25°C

Parameters (P#: ENA PORT)	frequency band	Min.	Typ.	Max.	Unit
Port Impedance, Z ₀ (P1 / P2 / P3)			50/25/25		Ohm
Insertion Loss	0.3-5MHz		1.1	1.7	dB
	5-200MHz		0.8	0.9	dB
Return Loss	0.3-5MHz	7.0	10.0		dB
	5-120MHz	19.0	21.0		dB
	120-200MHz	15.0	17.0		dB
Amplitude Balance	0.3-50MHz		0.1	±0.1	dB
	0.3-200MHz		0.2	±0.5	dB
Phase Balance (Nominal 180 °)	0.3-50MHz		1.0	±2	Deg
	0.3-200MHz		1.0	±5	Deg

Application & Test Circuit

Z₀=50Ω

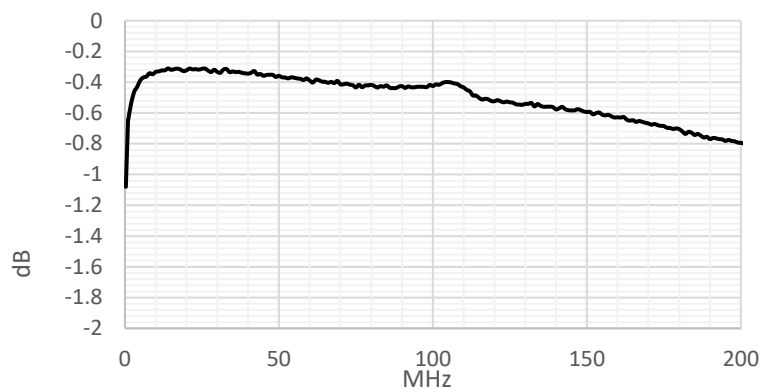
Absolute Maximum Ratings

Parameter	Value
Input Power	250mW MAX
DC Current	30mA MAX
Operating Temperature Range	-40 to 85°C

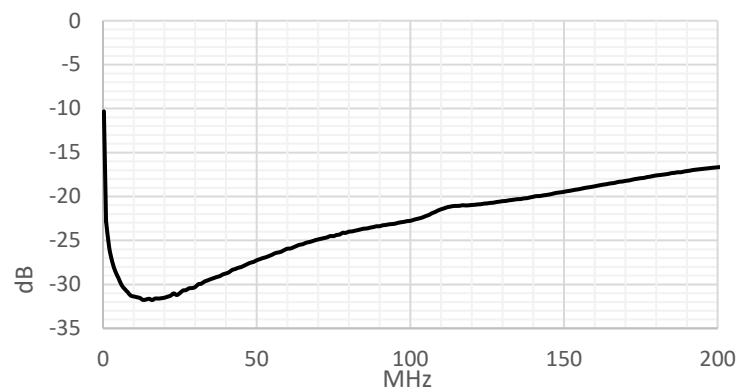
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Test Curve

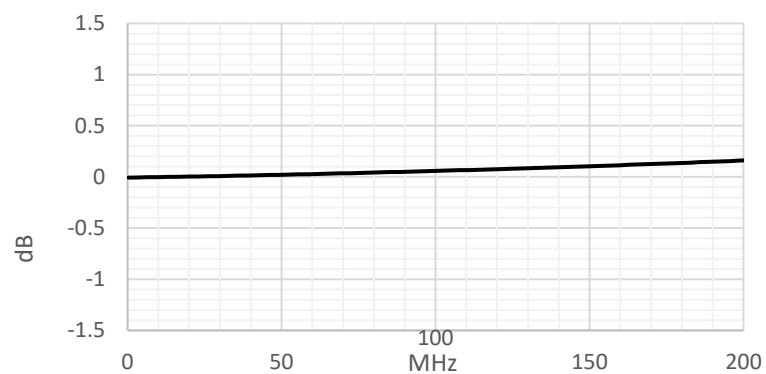
Insertion Loss



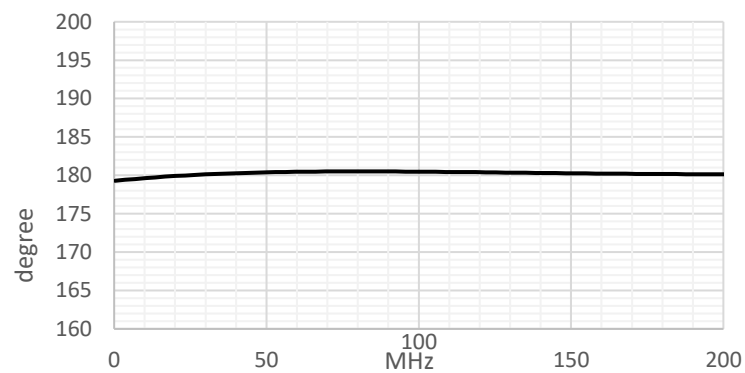
Input Return Loss



Amplitude Balance

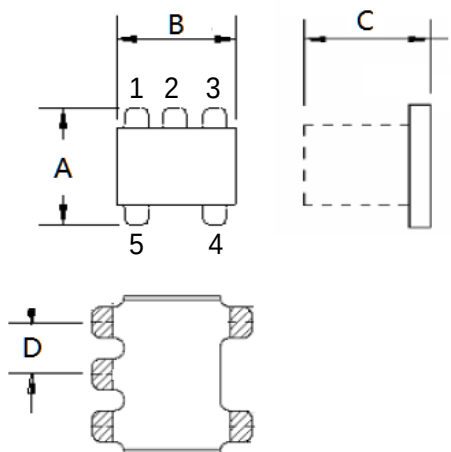


Phase Balance



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Dimensions

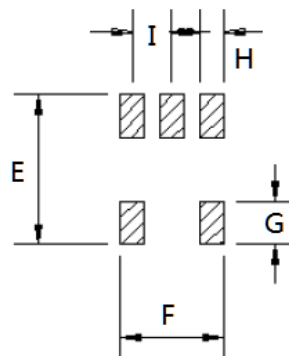


A	B	C
3.81	3.81	2.80Max
D		
1.27		

Unless otherwise stated dimensions are in mm

Tolerance: .xx ± 0.25, .xxx ± 0.05

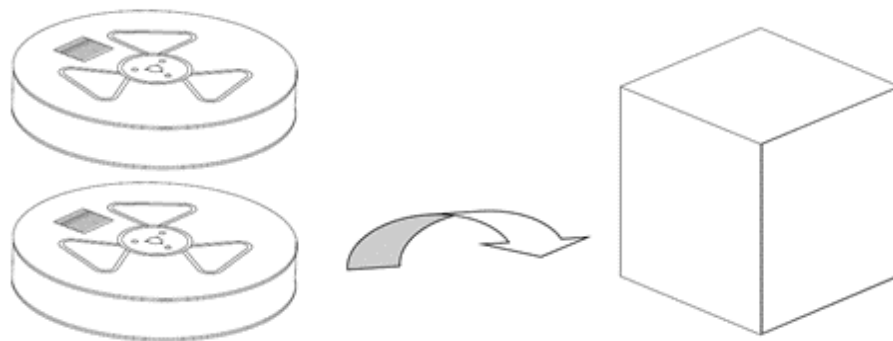
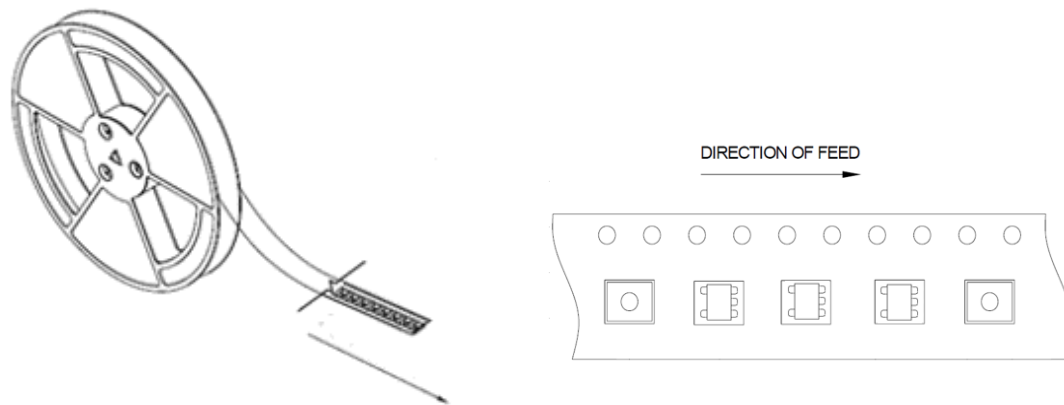
Land Pattern



E	F	G
4.83	3.30	1.40
H	J	
0.76	1.27	

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Packing



Ten Reel

Export Carton

Quantity per reel: 2000 pcs

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