

Balun Transformer(2-800MHz)

Features

- Surface mount
- Impedance ratio: 1:4
- Available on tape and reel
- RoHS compliant and Pb free
- 260°C reflow compatible
- CT on Secondary

Description

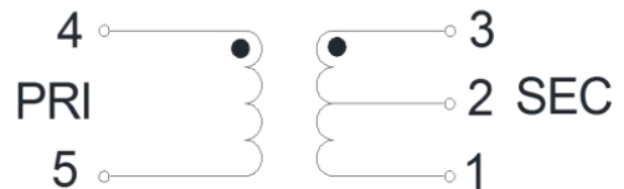
SCOPE

•MCBT4-1-017 is a 1:4 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 Dot	4	Primary
2	Secondary CT	5	Primary Dot
3	Secondary		

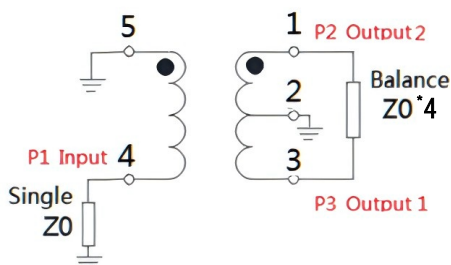
Electrical Specifications @ 25°C

Parameters (P#: ENA PORT)	frequency band	Min.	Typ.	Max.	Unit
Port Impedance, Z0 (P1 / P2 / P3)			50/100/100		Ohm
Insertion Loss	10-100MHz		0.8	1.0	dB
	5-600MHz		1.2	2.0	dB
	2-800MHz		2.3	3.0	dB
Amplitude Balance	10-100MHz		0.05	0.25	dB
	2-800MHz		0.6	1.0	dB
Phase Balance (Nominal 180 °)	10-500MHz		1.3	2	Deg
	2-800MHz		6.4	10	Deg

External DC blocking capacitors are required on all RF ports (39 pF capacitors are recommended).

Application & Test Circuit

Z0=50Ω



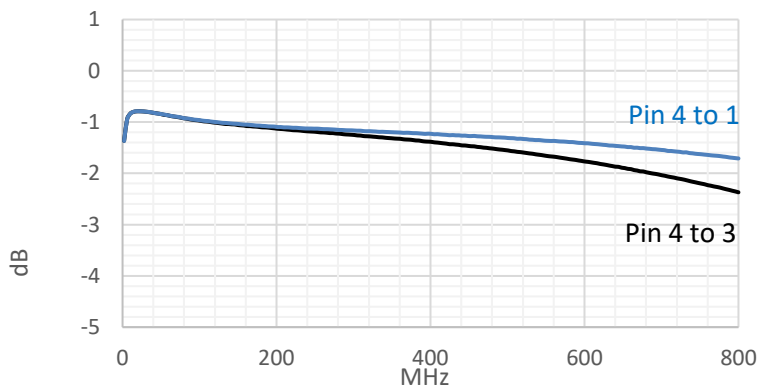
Absolute Maximum Ratings

Parameter	Value
Input Power	250mW MAX
DC Current	30mA MAX
Operating Temperature Range	-55 to 85°C

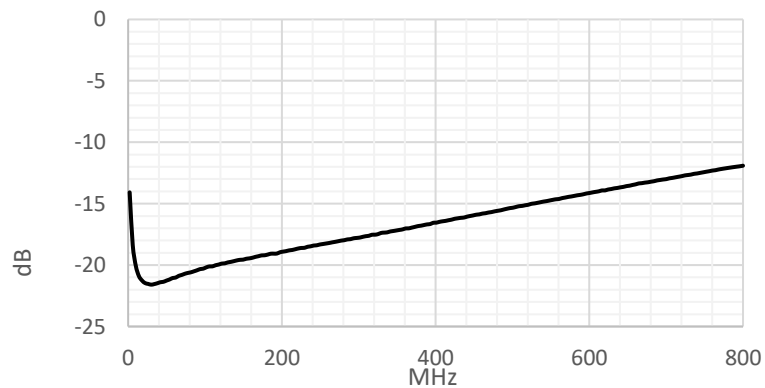
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Test Curve

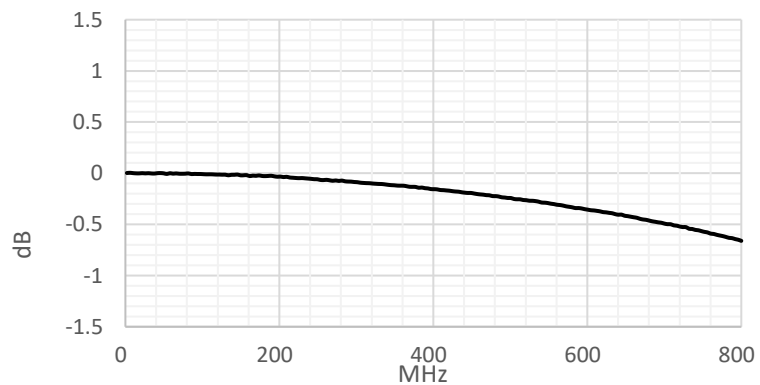
Insertion Loss



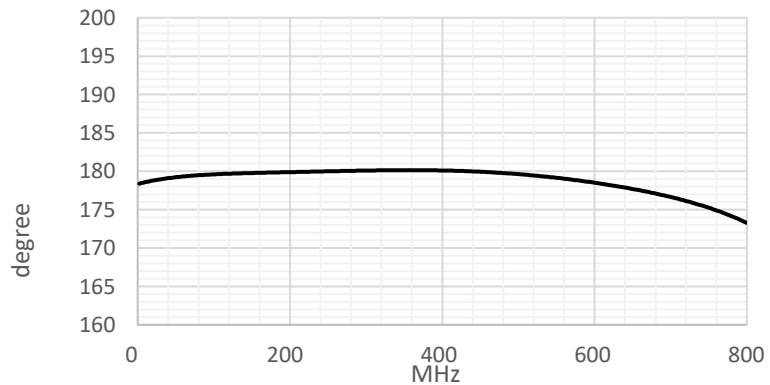
Input Return Loss: Pin 4



Amplitude Balance

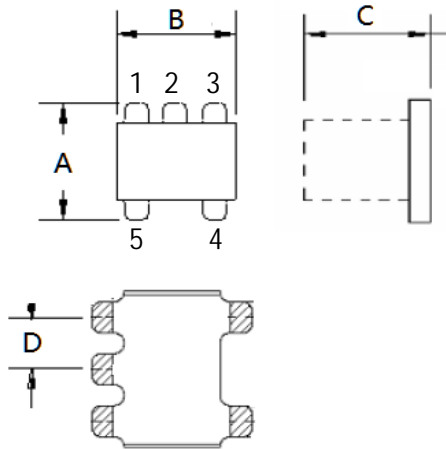


Phase Balance

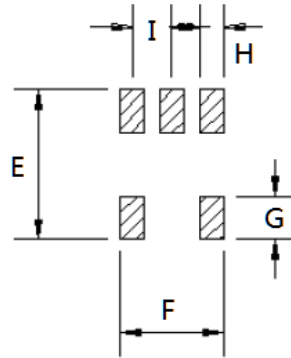


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Dimensions



Land Pattern



A	B	C
3.81	3.81	2.90 Max
D		
1.27		

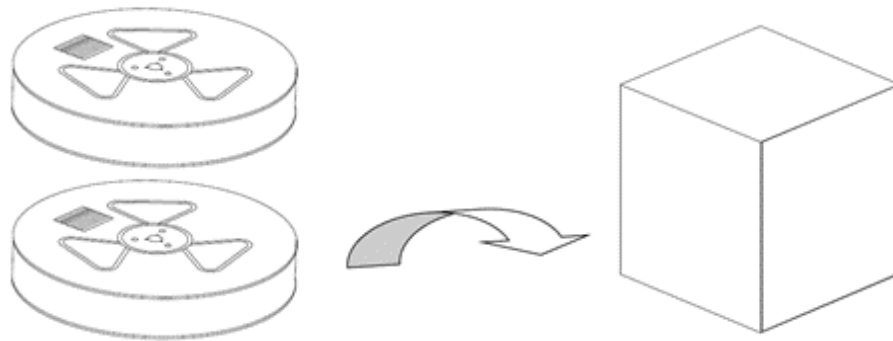
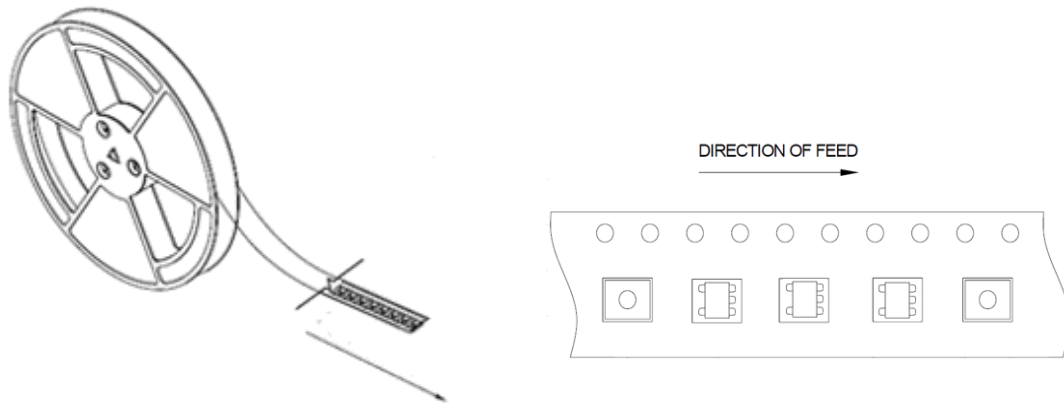
E	F	G
4.83	3.30	1.40
H	J	
0.76	1.27	

Unless otherwise stated dimensions are in mm

Tolerance: .xx ± 0.25, .xxx ± 0.05

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Packing



Ten Reel

Export Carton

Quantity per reel: 2000 pcs

Quantity per export carton: 20000 pcs