

## Balun Transformer(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

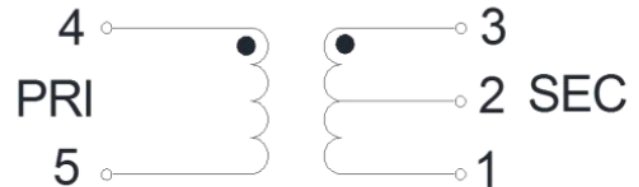
#### SCOPE

•MCBT1-1-016 is a 1:1 Balun transformer in a SMT package.

#### APPLICATIONS

- Ideally suited for high volume cellular and wireless applications.

### Functional Schematic



### Pin Configuration

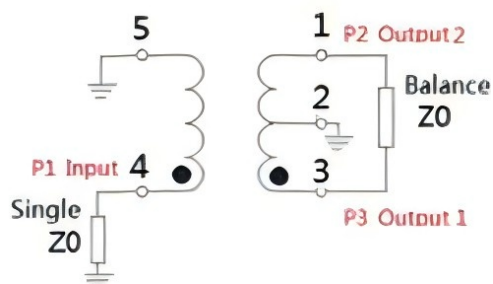
Pin #	Function	Pin #	Function
1	Secondary	4	Primary Dot
2	Secondary CT	5	Primary
3	Secondary Dot		

### Electrical Specifications @ 25°C

Parameters (P#: ENA PORT)	frequency band	Min.	Typ.	Max.	Unit
Port Impedance, Z0 (P1 / P2 / P3)			50/25/25		Ohm
Insertion Loss	3-200MHz		0.8	1.5	dB
Return Loss	3-200MHz	10.0	13.0		dB
	5-120MHz	15.0	18.0		dB
Amplitude ImBalance	3-50MHz		0.0	0.1	dB
	3-200MHz		0.2	0.5	dB
Phase ImBalance	3-50MHz		0.0	1	Deg
	3-200MHz		1.0	5	Deg

### Application & Test Circuit

Z0=50Ω



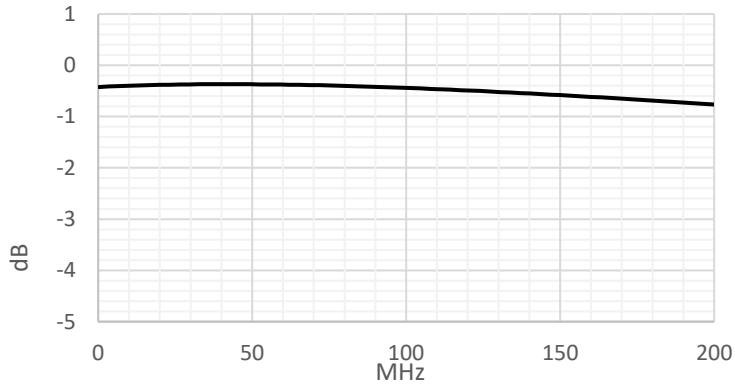
### Absolute Maximum Ratings

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

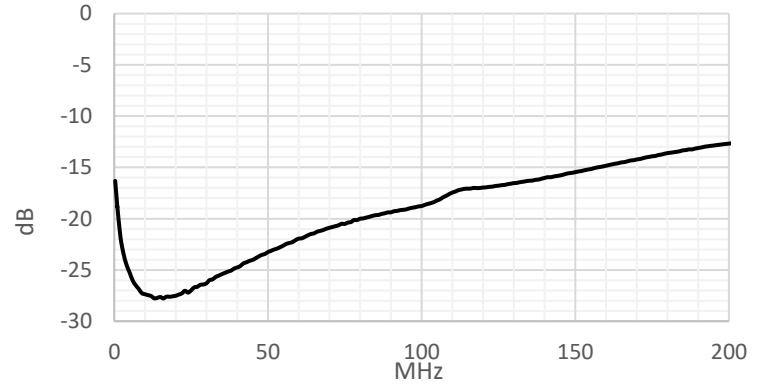
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Typical Performance Curves<sup>6</sup>:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50 \Omega$ ,  $P_{IN} = 0 \text{ dBm}$

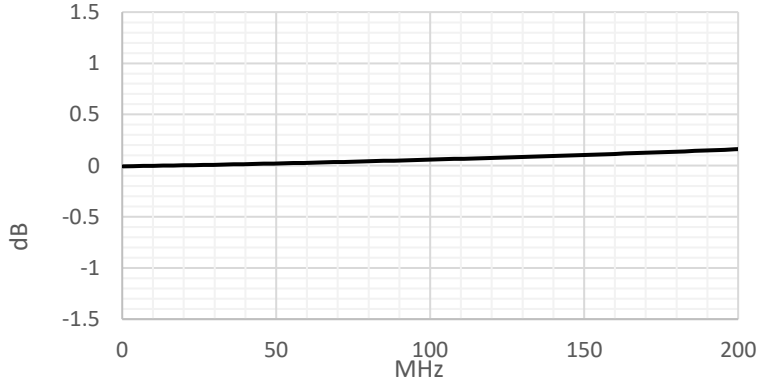
*Insertion Loss*



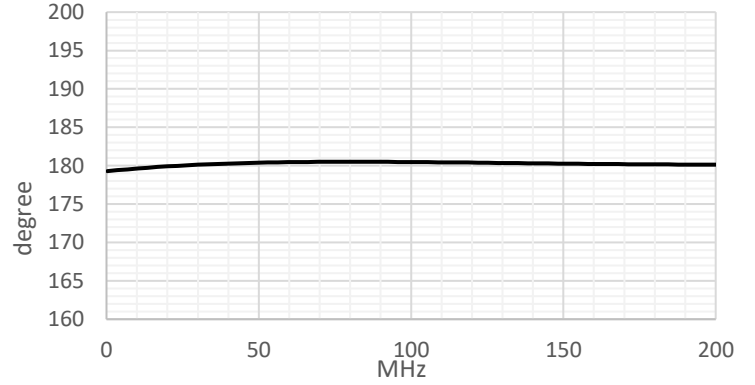
*Input Return Loss*



*Amplitude Balance*

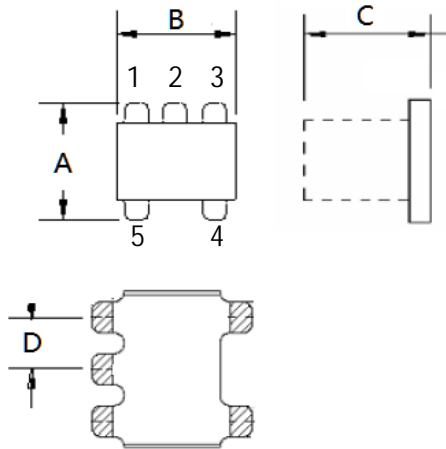


*Phase Balance*

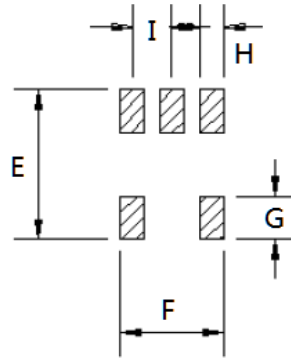


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### Dimensions



### Land Pattern



A	B	C
3.81	3.81	3.8 Max
D		
1.27		

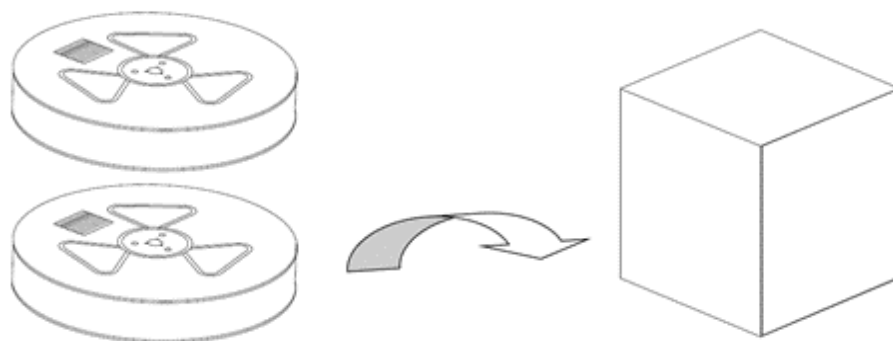
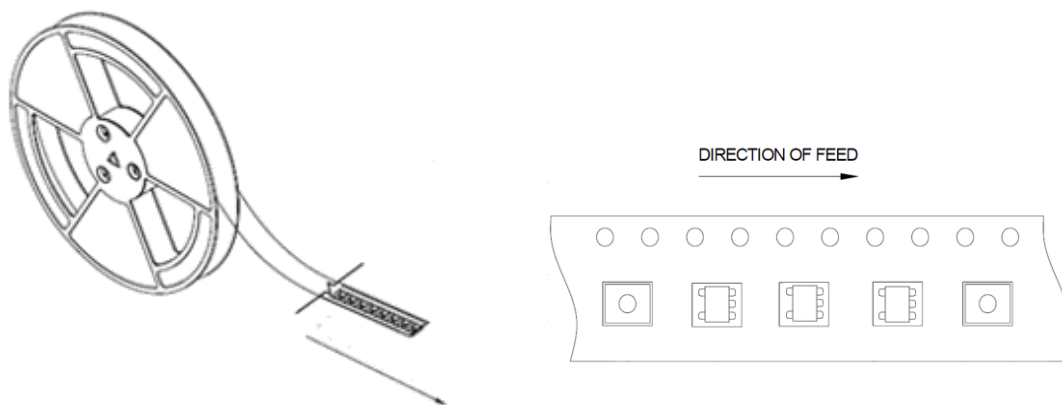
E	F	G
4.83	3.30	1.40
H	J	
0.76	1.27	

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