

# Molding Power Inductors

BDCC Series



The BDCC series is the special design to enhance the performance of PFM and PWM applications. It provides lower  $R_{ac}$  value at light load and lower  $R_{dc}$  value at heavy load to improve efficiency performance. Furthermore, it provides excellent saturation current to reduce the ripple current and enhance efficiency.

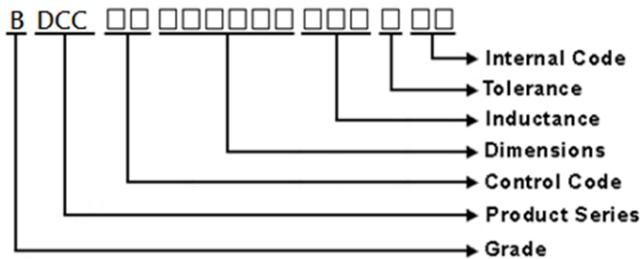
## Features

- Chip Size: 2012
- Low profile: 0.8mm
- Inductance: 0.24uH ~0.47uH
- Low  $R_{dc}$  for better power efficiency management
- High saturation current
- L Type Termination

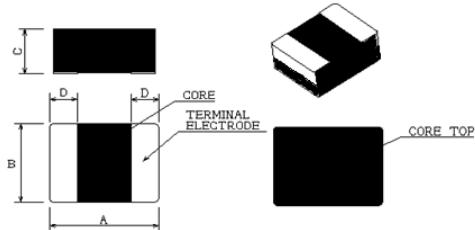
## Applications

- DC-DC buck converter for power management
- 5G, Cell phone

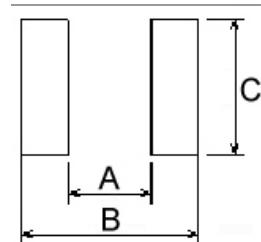
## Product Identification



## Chip Shape and Dimensions



## Recommended Pad Pattern



Dimensions in mm

TYPE	A	B	C	D
BDCC00201208	2.0±0.2	1.25±0.2	0.8 Max.	0.5 Typ.

Dimensions in mm

TYPE	A	B	C
BDCC00201208	0.8	2.4	1.45

## Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Test Frequency (MHz)	RDC (m $\Omega$ ) Max(Typ)	Isat (A) Max(Typ)	Irms (A) Max(Typ)
BDCC00201208R24MWA	0.24	20	2	22(18)	5.5(6.0)	4.2(4.3)
BDCC00201208R33MWA	0.33	20	2	24(20)	4.8(5.8)	4.0(4.2)
BDCC00201208R47MWA	0.47	20	2	29(25)	4.3(4.8)	3.7(3.9)

**Note:** When ordering, please specify tolerance code. Tolerance: M= $\pm$ 20%

- Operating temperature range: -40°C~125°C (Including self-temperature rise)
- Isat for Inductance drop 30% from its initial inductance value without applying current
- Irms for a 40°C temperature rise from 25°C ambient with applying current
- Rated current: Isat or Irms, whichever is smaller
- Absolute maximum voltage: 20VDC

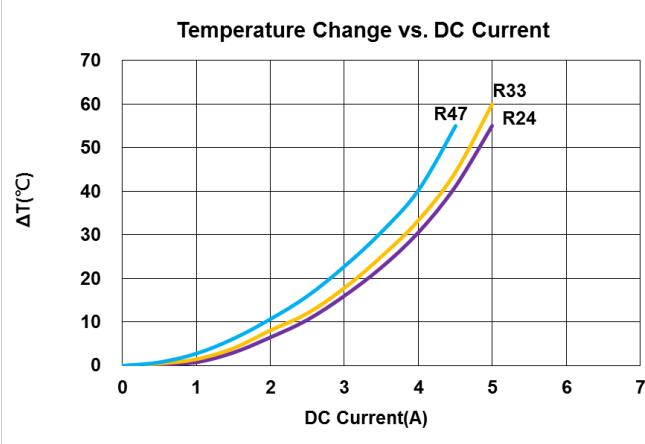
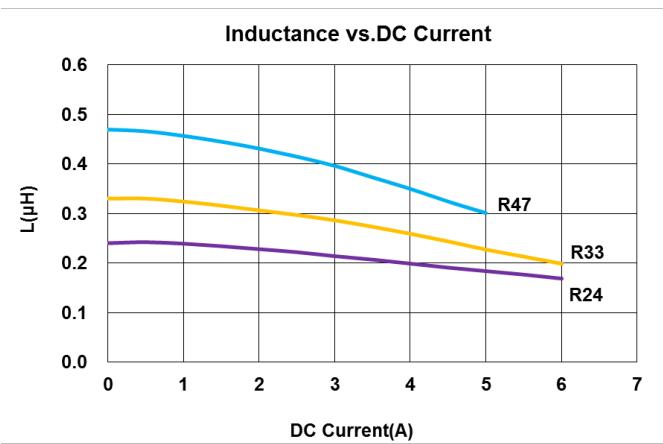
## Test Instruments :

L: WK 6500B/HP4285A (or equivalent), 2MHz 1V

RDC: Chen Hwa 502BC/HP4338B (or equivalent)

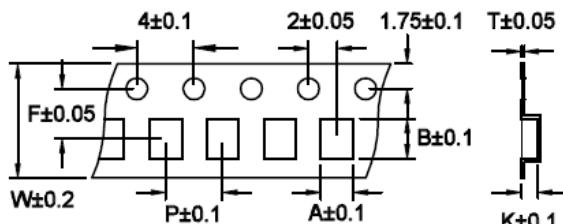
Isat: Agilent E4980A+HP42841A (or equivalent)

Irms: Agilent 6641 system DC power supply (or equivalent)



## Packaging Specifications

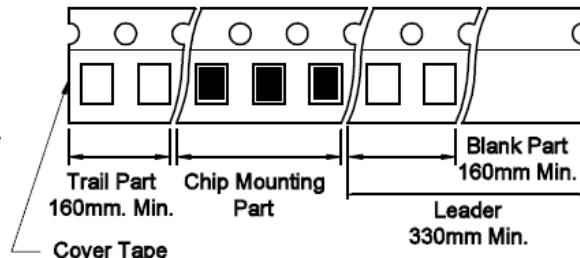
### Tape Dimensions



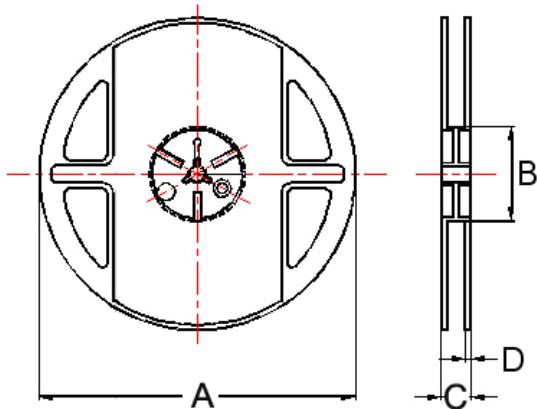
### Tape Material

#### Tape Material

Carrier Tape: Polycarbonate  
Cover Tape: Polyethylene



### Reel Dimensions



#### Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	A	B	T	W	P	F	K	A	B	C	D	
BDCC00201208	1.48	2.27	0.22	8	4	3.5	1.10	178	60	12	1.5	3000

#### For More Information:

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