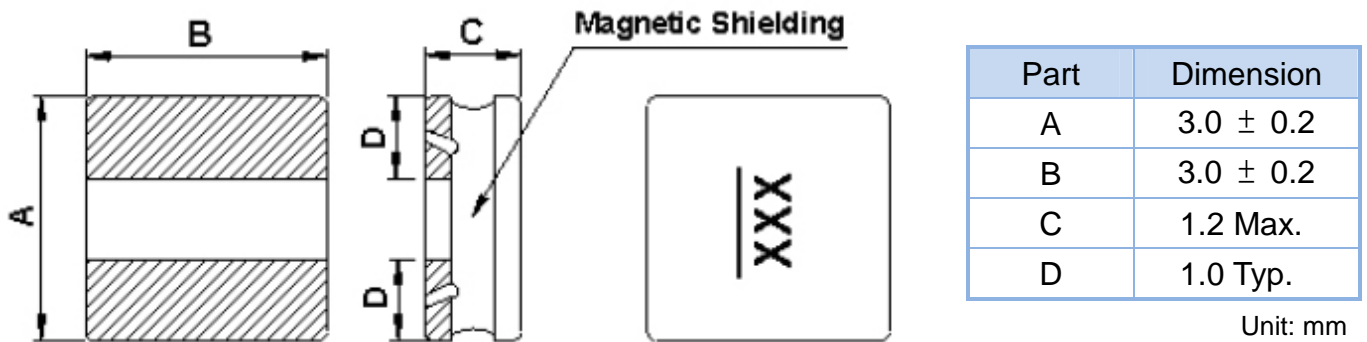


## 1. Dimension

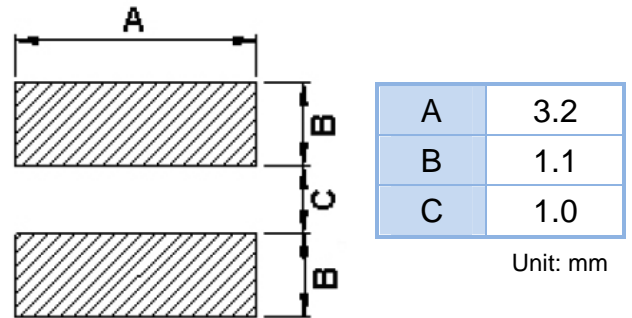


## 2. Part Numbering

BCNRL 3012 HC - 2R2 N - NL  
 (1) (2) (3) (4) (5) (6)

- (1) Product Name
- (2) Dimension
- (3) High Current
- (4) Inductance 2R2=2.2μH
- (5) Tolerance M=±20%,N=±30%
- (6) RoHS Compliant

## 3. Recommended Land Pattern



## 4. Specification

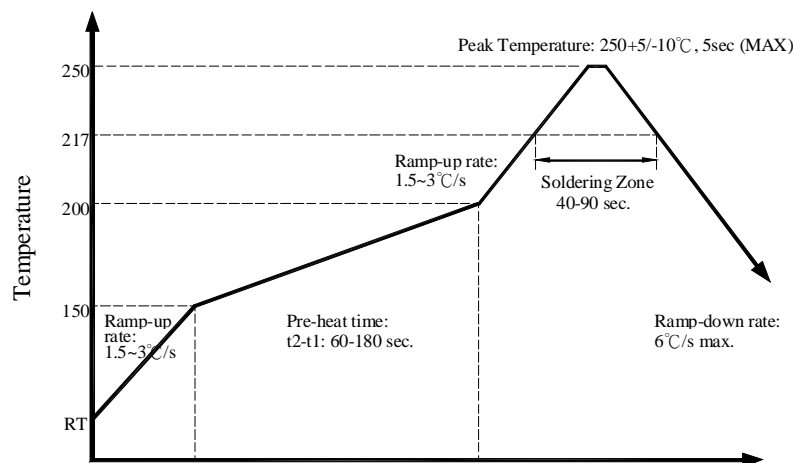
Part Number	Inductance (μH)	Tolerance	Test Frequency	DCR (Ω) ±30%	Isat (A)		Irms (A)	
					Typ.	Max.	Typ.	Max.
BCNRL3012HC-2R2□-NL	2.2	± 20%, ± 30%	1MHz/200mV	0.092	2.10	1.89	2.00	1.80
BCNRL3012HC-3R3□-NL	3.3	± 20%, ± 30%	1MHz/200mV	0.130	1.84	1.65	1.80	1.62
BCNRL3012HC-4R7□-NL	4.7	± 20%, ± 30%	1MHz/200mV	0.180	1.56	1.40	1.52	1.36
BCNRL3012HC-6R8□-NL	6.8	± 20%, ± 30%	1MHz/200mV	0.250	1.32	1.18	1.30	1.17
BCNRL3012HC-100□-NL	10	± 20%, ± 30%	1MHz/200mV	0.420	1.06	0.95	1.00	0.90
BCNRL3012HC-150□-NL	15	± 20%, ± 30%	1MHz/200mV	0.560	0.82	0.73	0.80	0.72
BCNRL3012HC-220□-NL	22	± 20%, ± 30%	1MHz/200mV	0.860	0.64	0.57	0.62	0.55

1. □-Tolerance M±20%,N=±30%
2. Isat for Inductance drop 30% from its value without current.
3. Irms for a 40°C temperature rise from 25°C ambient.
4. Operating temperature range -55°C~125°C (Including self- temperature rise).

## 5. Reliability Test

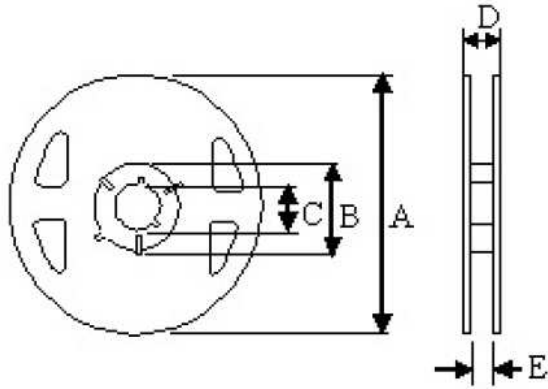
NO	Test item	Specification	Test condition
1-1	Solderability	More than 90% of the Terminal electrode Shall be covered With fresh solder.	Preheat : $150\pm 25^{\circ}\text{C}$ for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder Temp. : $235\pm 5^{\circ}\text{C}$ Flux : Rosin Dip time : $4\pm 1$ seconds
1-2	High temp. storage test	Electrical characteristics variation shall not change more 3%	Test conditions : $+125^{\circ}\text{C}\pm 2^{\circ}\text{C}$ For $48\pm 2$ Hours
1-3	Low temp. storage test		Test conditions : $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ For $48\pm 2$ Hours
1-4	Temp. cycle test		Test conditions : $+125^{\circ}\text{C}\pm 5^{\circ}\text{C}$ (30min.) $\sim +25^{\circ}\text{C}\pm 5^{\circ}\text{C}$ (2Hours) $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ (30min.) Total test : 10 cycle
1-5	Humidity test		Temperature : $+40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ Humidity : $90\%\pm 5\%$ Time : 96 hours
1-6	Thermal shock test		Test conditions: $+125^{\circ}\text{C}\pm 5^{\circ}\text{C}$ (30min.) $\sim -65^{\circ}\text{C}\pm 5^{\circ}\text{C}$ (30min.) Temp change: 2 min. Total : 50 cycles
1-7	Life test		Test conditions : $+70^{\circ}\text{C}\pm 5^{\circ}\text{C}$ Total test : 300 hours

## 6. Recommended Lead-Free IR Reflow Conditions



## 7. Packaging

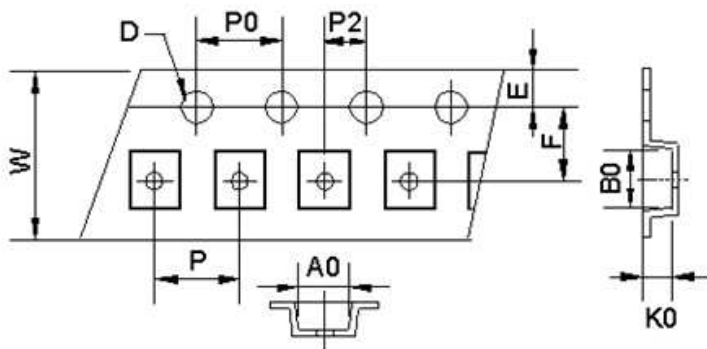
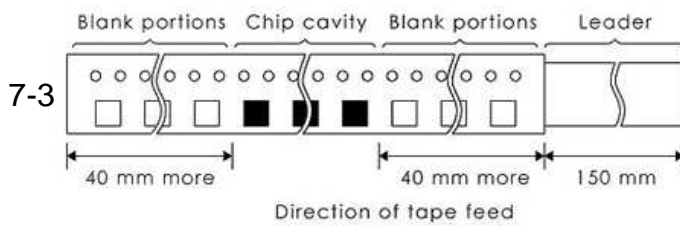
7-1 Reel Dimension



Part	Dimension
A	180
B	60
C	13
D	14.4
E	8.4

Unit: mm

7-2 Leader and Blank Portion



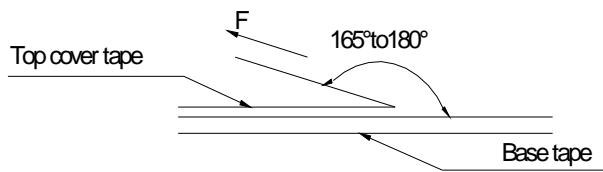
Part	BCNRL3012HC
W	8.0± 0.1
A0	3.2± 0.1
B0	3.2± 0.1
K0	1.4± 0.1
D	1.55± 0.05
E	1.75± 0.1
F	3.5± 0.1
P	4.0± 0.1
P0	4.0± 0.1
P2	2.0± 0.1

Unit: mm

7-4 Packaging Quantity

P/N	PCS/Reel
BCNRL3012HC	2,000

7-5 Tearing Off Force



The force tearing off cove tape is 15 to 60 grams			
in the arrow direction under the following conditions			
Room Temp (°C)	Room Humidity (%)	Room atrn (hPa)	Teaming Speed (mm/min)
5~35	45~85	860~1060	300.0