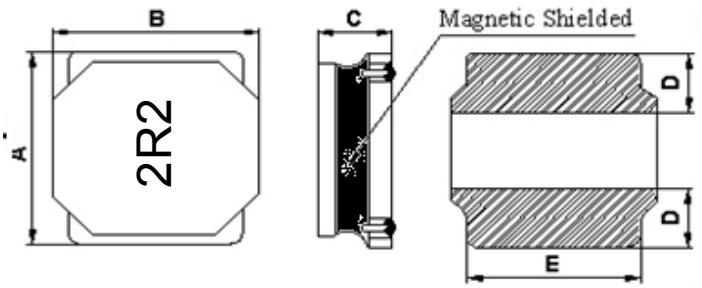
1. Dimension



Series	A	B	C	D	E
BCNRL5012	5.0±0.2	5.0±0.2.	1.1±0.1	1.5±0.3	4.0 Ref.

2. Part Numbering

BCNRL 5012 - 2R2 M - NL
(1) (2) (3) (4) (5)

(1) Product code

(2) Dimension

(3) Inductance 4R7=4.7uH

(4) Inductance Tolerance M=±20%

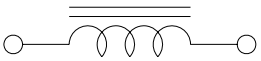
(5) RoHS compliant

3. Specification

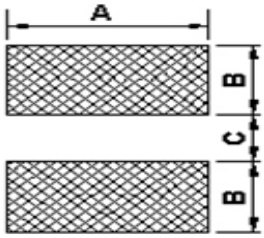
Part Number	Inductance (uH)	Tolerance	Test Frequency	DCR (Ω) Max.	Isat (A) Max.	Irms (A) Max.
BCNRL5012-2R2N-NL	2.2	± 30%	100KHz/1V	0.126	2.50	1.70
BCNRL5012-3R3M-NL	3.3	± 20%	100KHz/1V	0.174	1.90	1.50
BCNRL5012-4R7M-NL	4.7	± 20%	100KHz/1V	0.198	1.60	1.10
BCNRL5012-6R8M-NL	6.8	± 20%	100KHz/1V	0.291	1.30	1.00
BCNRL5012-100M-NL	10	± 20%	100KHz/1V	0.401	1.00	0.70

(1) All test data is referenced to 20℃ ambient.
(2) Isat: DC current at which the inductance drops approximate 30% from its value without current.
(3) Irms: DC current that causes the temperature rise(△T=40℃) from 20℃ ambient

4. Schematic Diagram



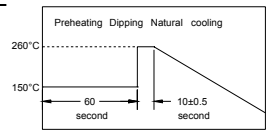
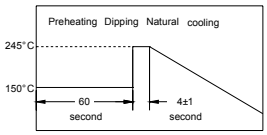
5. Recommended Land Dimension



A	**4.7**
B	**1.3**
C	**2.6**

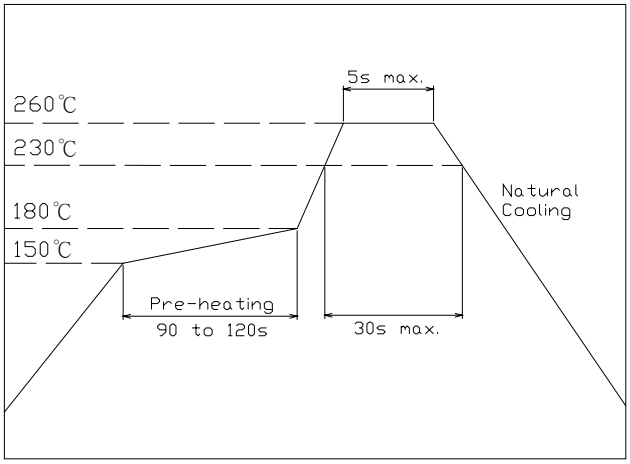
Unit:mm

6. Reliability and Test Condition

Item	Performance	Test Condition
Operating Temperature	-40~+125℃	
Storage temperature	-40~+125℃	
Rated Current	Base on temp. rise & △L/LOA≦35%	
Temperature Rise Test	40℃ typ. (△t)	
Solder heat Resistance	Appearance: No significant abnormality. Inductance change: Within ± 20%. 	Preheat:150℃,60sec. Solder : Sn-Ag3.0-Cu0.5 Solder tamperature:260±5℃ Flux: rosin Dip time:10±0.5sec.
Solderability	More than 90% of the terminal electrode should be covered with solder. 	Preheat:125±25℃,60sec. Solder : Sn-Ag3.0-Cu0.5 Solder tamperature:245±5℃ Flux: rosin Dip time:4±1sec.
Thermal shock	Appearance: no damage. Inductance: within±20%of initial value. Measured:50 times	For SSL Condition for 1 cycle Step1:-25±2℃ 30±3 min. Step2:Room temperature 15 min. Step3:+85±2℃ 30±3 min. Step4: Room temperature 15 min. Number of cycles:50
Humidity Resistance Test	Appearance: no damage. Inductance: within±20%of initial value.	Temperature:40±2℃. Applied current:rated current. Duration:500 hrs. Humidity:90~95%
High Temperature Resistance Test	Appearance: no damage. Inductance: within±20%of initial value.	Temperature:85±2℃. Applied current:rated current. Duration:500 hrs.
Random Vibration Test	Appearance: Cracking, shipping and any other defects harmful to the characteristics should not be allowed. Impedance: within±30%	Frequency: 10-55-10Hz for 1 min. Amplitude: 1.52mm Directions and times: X, Y, Z directions for 2 hours. A period of 2 hours in each of 3 mutually perpendicular directions (Total 6 hours).

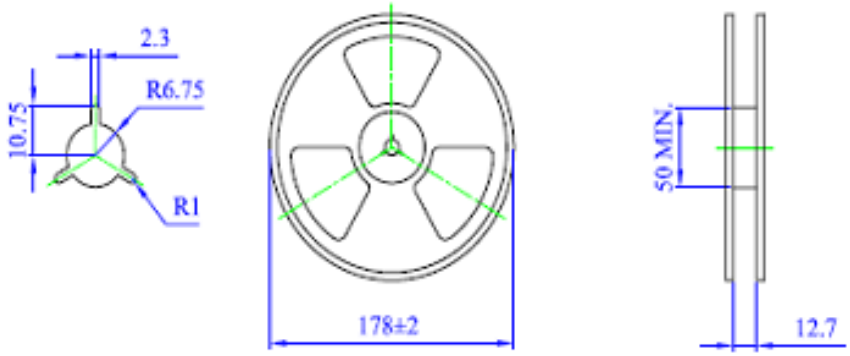
Phase	Temperature(℃)	Time(min)
1	-25±2℃	30±3
2	Room Temp.	15
3	+85±2℃	30±3
4	Room Temp.	15

7. Recommended IR Reflow



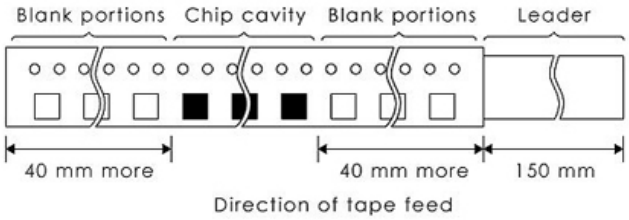
8. Packaging

8-1 Reel Dimension

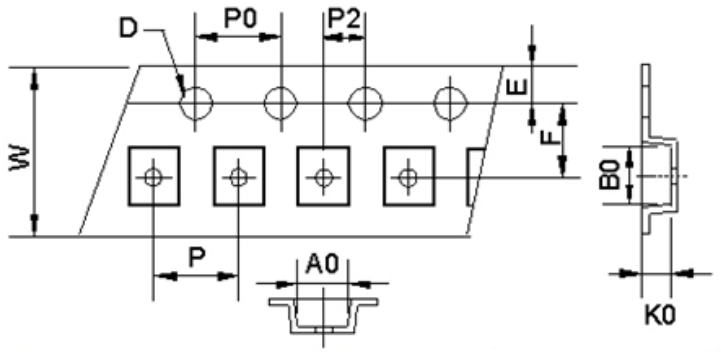


Unit:mm

8-2 Leader and Black Portion



8-3 Taping Dimension



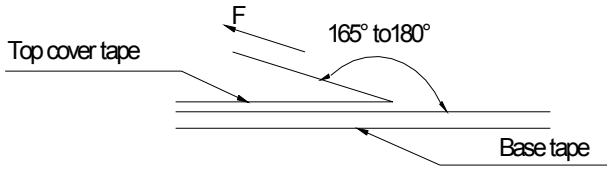
TYPE	BCNRL5012
W	12 ± 0.1
AO	5.2 ± 0.1
BO	5.2 ± 0.1
KO	1.3 ± 0.1
D	1.55 ± 0.05
E	1.75 ± 0.1
F	5.5 ± 0.1
P	8 ± 0.1
PO	4.00 ± 0.1
P2	2.0 ± 0.1

Unit:mm

8-4 Packaging Quantity

P/N	Reel(Pcs)
BCNRL5012	1000

8-5 Tearing Off Force



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