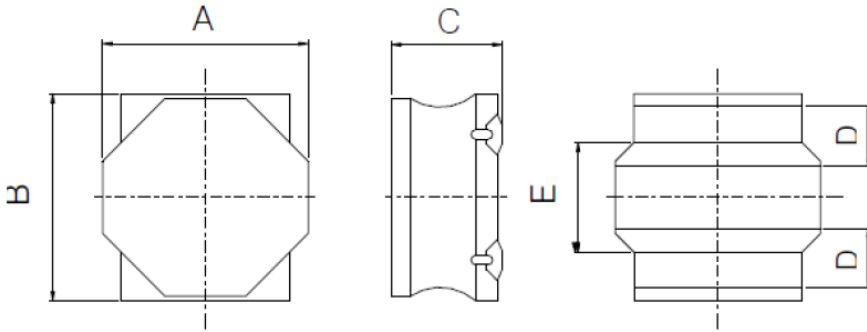


1. Dimension



Part	Dimension
A	2.0 ± 0.1
B	2.0 ± 0.1
C	1.2 Max.
D	0.5 ± 0.2
E	1.25 ± 0.2

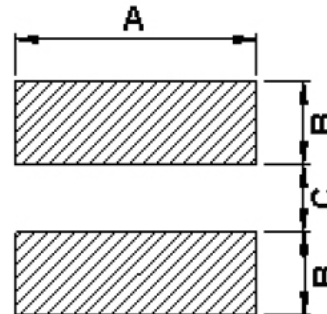
Unit: mm

2. Part Numbering

BCNRL 2012 - 4R7 M - NL
 (1) (2) (3) (4) (5)

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

3. Recommended Land Pattern



A	2.00
B	0.65
C	0.70

Unit: mm

4. Specification

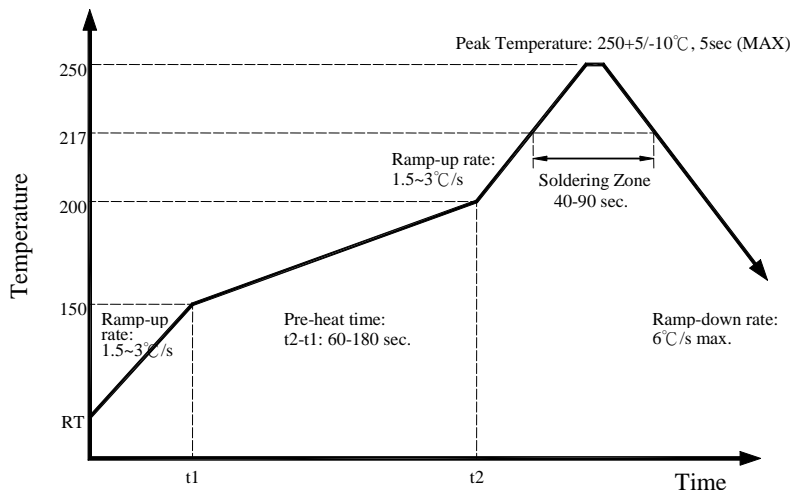
Part Number	Inductance (μH)	Tolerance	Test Frequency	DCR (Ω) ±20%	Isat (A)		Irms (A)	
					Typ.	Max.	Typ.	Max.
BCNRL2012-1R0□-NL	1.0	± 20%,± 30%,	100 KHz	0.07	2050	1900	1850	1700
BCNRL2012-1R5□-NL	1.5	± 20%,± 30%,	100 KHz	0.09	1800	1650	1650	1500
BCNRL2012-2R2□-NL	2.2	± 20%,± 30%,	100 KHz	0.107	1500	1350	1500	1370
BCNRL2012-3R3□-NL	3.3	± 20%,± 30%	100 KHz	0.190	1150	1000	1100	1020
BCNRL2012-4R7□-NL	4.7	± 20%,± 30%	100 KHz	0.241	1050	900	1000	910

- 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 -25°C ~120°C (Including self- temperature rise).
- 5. Storage temperature range -40°C ~85°C.

5. Reliability Test

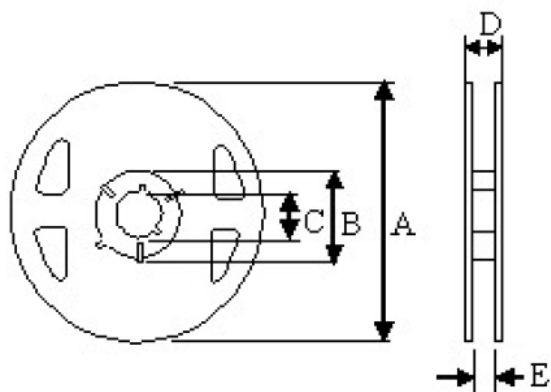
NO	Test item	Specification	Test condition
1-1	Solderability	More than 90% of the Terminal electrode Shall be covered With fresh solder.	Preheat : $150\pm 25^{\circ}\text{C}$ for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder Temp. : $235\pm 5^{\circ}\text{C}$ Flux : Rosin Dip time : 4 ± 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 ± 2 Hours
1-3	Low temp. storage test		Test conditions : $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ For 48 ± 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

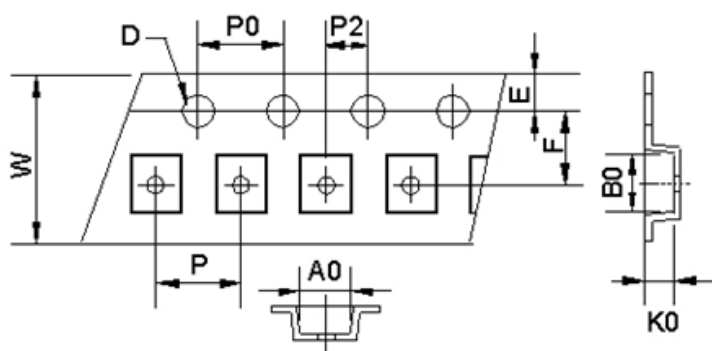
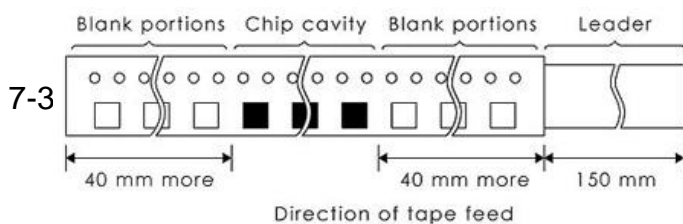
7-1 Reel Dimension



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

Unit: mm

7-2 Leader and Black Portion



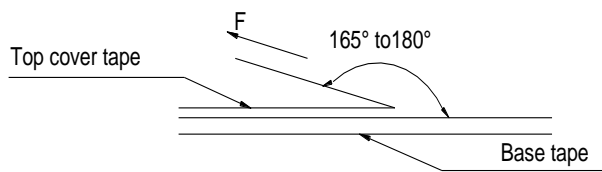
Part	BCNRL2012
W	8.0± 0.1
A0	3.2± 0.1
B0	3.2± 0.1
K0	1.4± 0.1
D	1.55± 0.05
E	1.75± 0.1
F	3.5± 0.1
P	4.0± 0.1
P0	4.0± 0.1
P2	2.0± 0.1

Unit: mm

7-4 Packaging Quantity

P/N	PCS/Reel
BCNRL2012	2,500

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 ($^\circ\text{C}$)	Room Humidity (%)	Room atrn (hPa)	Teaming Speed (mm/min)
5~35	45~85	860~1060	300.0