SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.	RN6045□□□□F□-□□□		
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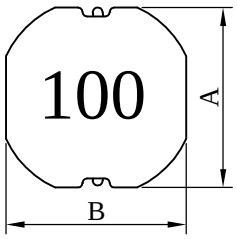
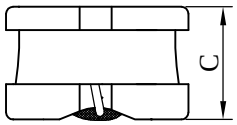
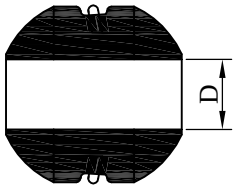
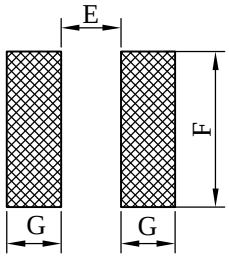
Ⅰ．Configuration and dimensions：









Unit：m/m

A	B	C	D	E	F	G
6.00 ±0.2	6.00 ±0.2	4.50 max.	2.50 ref.	2.30 ref.	6.00 ref.	2.00 ref.

Ⅱ．Description：

a．Ferrite drum core construction.

b．Magnetically epoxy.

c．Enamelled copper wire：H class

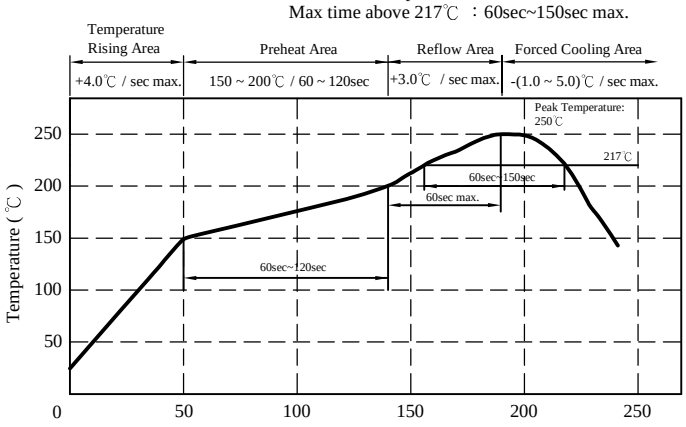
d．Product weight：0.56 g（ref.）

e．Moisture sensitivity Level 1

f．Products comply with RoHS' requirements

g．Halogen free available

Peak Temp：250℃ max.
Max. Peak Temp - 5℃：30sec max.
Max time above 217℃ ：60sec~150sec max.



Ⅲ．General specification：

a．Storage temp.：-40℃ ----+125℃

b．Operating temp.：-40℃----+125℃
(Temp. rise included)

c．Resistance to solder heat：250℃．10 secs.

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Ⅳ . Electrical characteristics：

DWG No.	Inductance (uH)	RDC (mΩ) max.	Isat (A) max.	Irms (A) max.
RN60451R0YF□-□□□	1.0±30%	13.9	8.50	4.20
RN60451R3YF□-□□□	1.3±30%	17.0	8.00	4.00
RN60451R8YF□-□□□	1.8±30%	19.8	7.00	3.70
RN60452R2YF□-□□□	2.2±30%	25.1	6.00	3.50
RN60453R3YF□-□□□	3.3±30%	30.2	5.00	3.20
RN60454R7YF□-□□□	4.7±30%	37.6	4.00	3.00
RN60456R8YF□-□□□	6.8±30%	47.3	3.80	2.80
RN60458R2YF□-□□□	8.2±30%	55.0	3.30	2.70
RN6045100MF□-□□□	10±20%	58.6	3.00	2.50
RN6045120MF□-□□□	12±20%	85.0	2.60	2.20
RN6045150MF□-□□□	15±20%	95.8	2.30	1.90
RN6045220MF□-□□□	22±20%	142.0	1.90	1.50
RN6045330MF□-□□□	33±20%	188.0	1.50	1.40
RN6045470MF□-□□□	47±20%	257.0	1.30	1.10
RN6045680MF□-□□□	68±20%	351.0	1.00	0.90
RN6045101MF□-□□□	100±20%	494.0	0.80	0.70

1). □：Packaging information：□ Code

2). "-□□□"：Reference code

3). Electrical specifications at 25℃

4). Inductance Test Condition.：100kHz / 1V

5). Irms base on Temp. rise 40℃ max.

6). Isat base on △ L/L0A＝30％ max.

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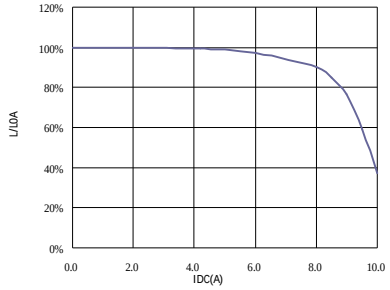
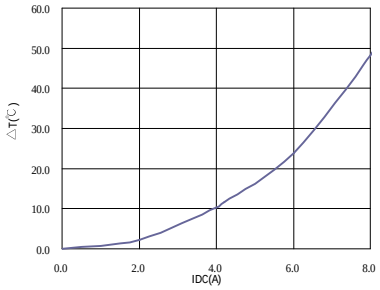
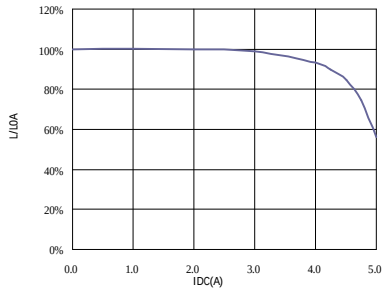
V ．Curve：

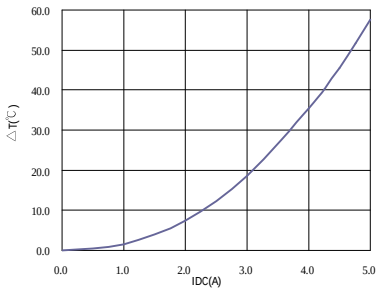
RN60451R0YF□



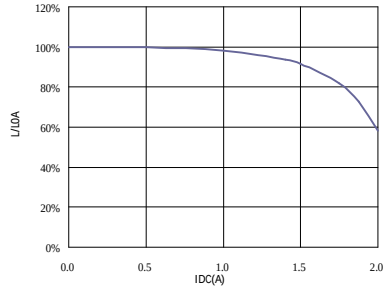


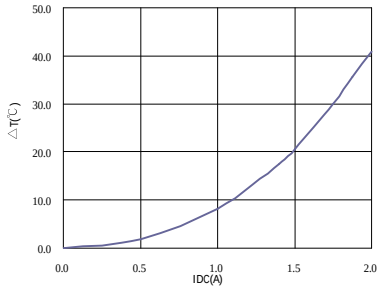
RN60454R7YF□



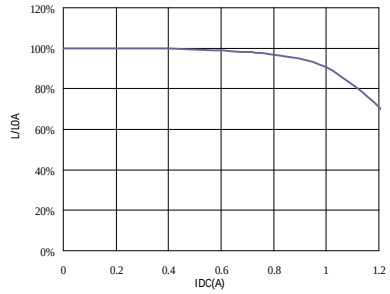


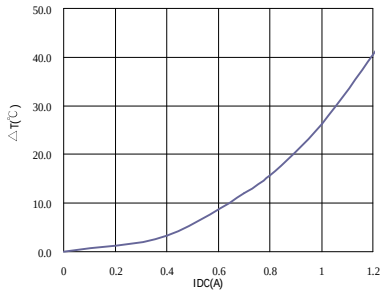
RN6045330MF□





RN6045101MF□





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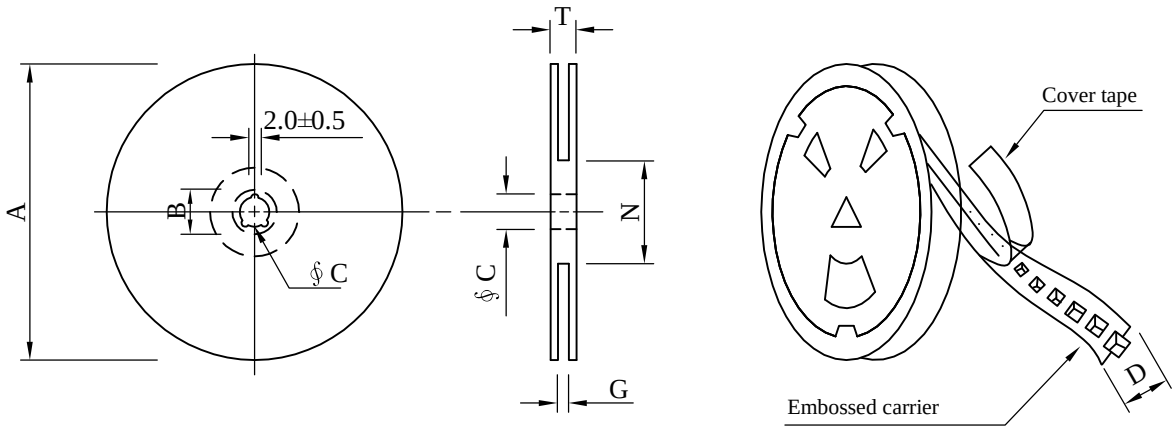
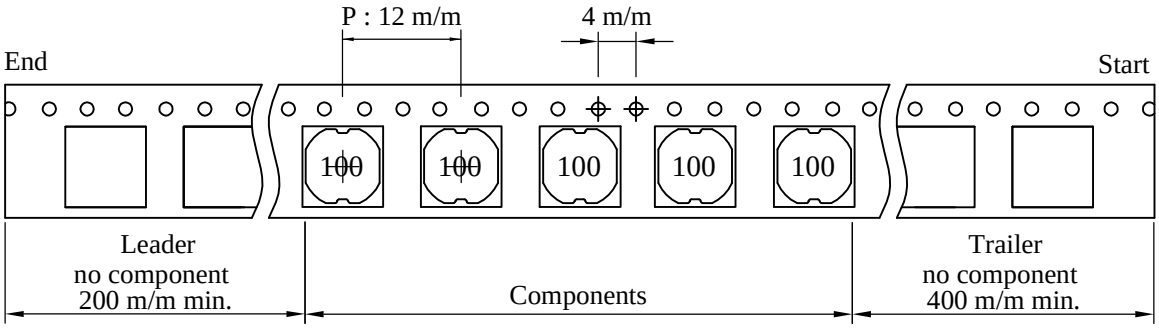
Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



User direction of feed

(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18^{+0}	50^{-0}	22.4

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	1,000	940	13 - 16	6,000	6.9	38 x 37 x 22

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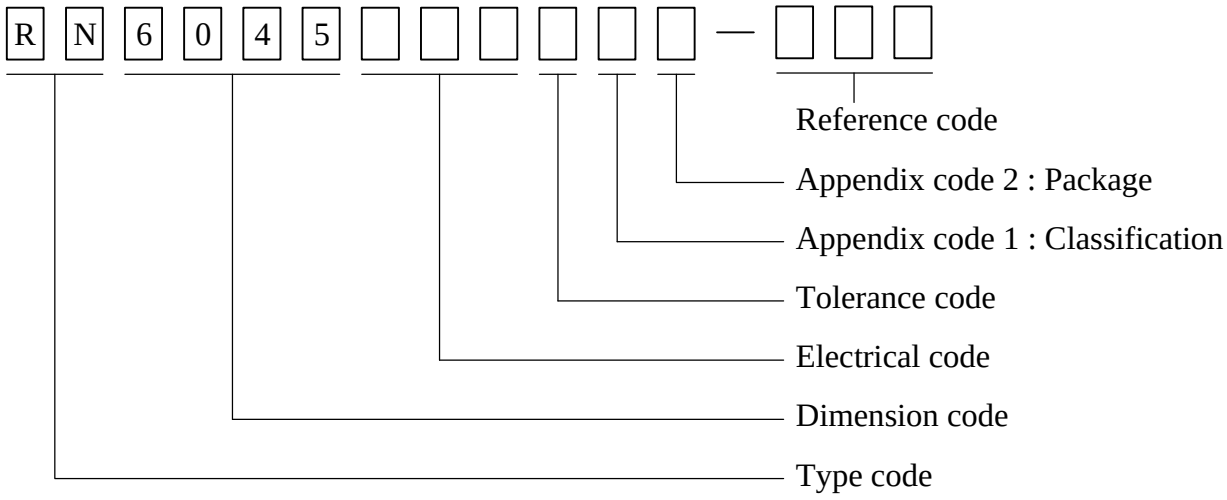
Ⅶ．Drawing number expression：



Appendix code 1：Product Classification

Appendix code 2：Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	UCT	Antistatic	Antistatic	1000 pcs	

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Ⅷ．Reliability test：

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2℃ 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycle 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature：85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
4.Operational Life	JESD22-A 108	1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of products. 2.Clear marking. 3.No crack.
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in apperarance. 2.No marking blurred. 3.Inductance shall not change more than ±20%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitued : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature：250±5℃. 2.Time（temp.≧ 217℃）：60~150 Seconds. 3.IR reflow times：3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current	Inductance shall not drop more than 30% max.
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current	Surface temperature rise is less than 40℃ max.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing： 150±5℃ / 16Hours±30 min. 2.Peak temperature：240±5℃ 3.Time（temp.≧217℃）：60~150 seconds. 4.IR reflow times：1 time.	More than 95% soldering coverage min on terminations.
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature：-40℃~125℃ 2.Room temperature：25℃.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. PCB and dropped down from a height of 1m 2.Drop total time：6 times (Every side of sample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Strength Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage.