SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SB7045□□□□L□-□□□		
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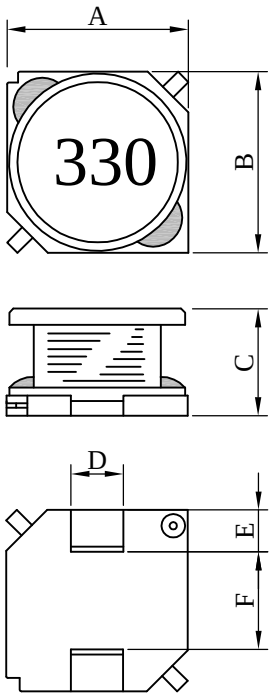
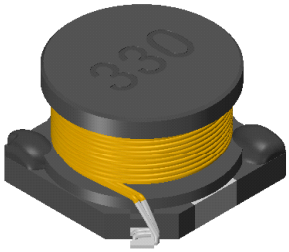
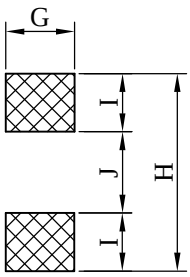
Ⅰ．Configuration and dimensions：







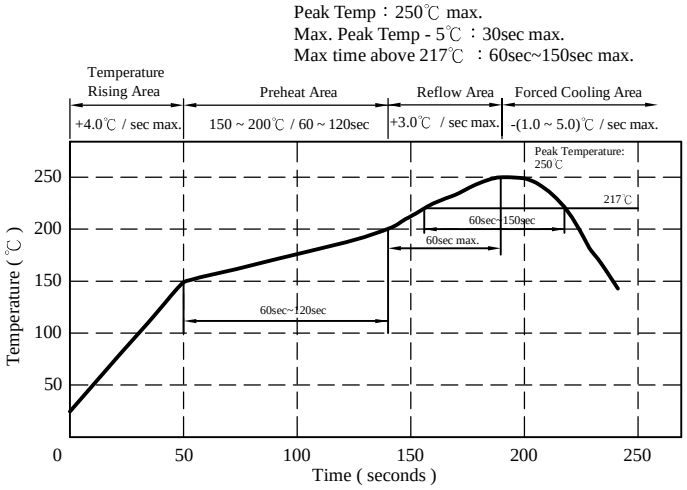
（PCB Pattern）

Unit：m/m

A	B	C	D	E	F	G	H	I	J
7.00 ±0.3	7.00 ±0.3	4.50 ±0.3	2.00 typ.	1.50 typ.	4.00 typ.	2.40 ref.	7.80 ref.	1.80 ref.	4.20 ref.

Ⅱ．Description：

a．Ferrite drum core construction.
b．Enamelled copper wire：F class
c．Product weight： 0.60g（ref.）
d．Moisture sensitivity Level 1
e．Products comply with RoHS' requirements
f．Halogen free available.



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 (μH) 100kHz / 0.1V	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (Ω) max.	Irms (A) max.	Isat (A) typ.
SB70451R2ML□-□□□	1.2±20%	25	7.96	90	0.022	3.80	5.00
SB70451R5ML□-□□□	1.5±20%	26	7.96	109	0.027	3.50	4.50
SB70452R2ML□-□□□	2.2±20%	24	7.96	79	0.032	3.30	4.00
SB70453R3ML□-□□□	3.3±20%	23	7.96	47	0.036	2.80	3.70
SB70454R7ML□-□□□	4.7±20%	23	7.96	38	0.042	2.60	3.40
SB70456R8ML□-□□□	6.8±20%	22	7.96	35	0.054	2.25	2.70
SB7045100ML□-□□□	10.0±20%	28	2.52	23	0.070	2.00	2.30
SB7045150ML□-□□□	15.0±20%	24	2.52	19	0.086	1.60	1.90
SB7045220ML□-□□□	22.0±20%	26	2.52	18	0.125	1.40	1.62
SB7045330ML□-□□□	33.0±20%	20	2.52	18	0.150	1.22	1.32
SB7045470KL□-□□□	47.0±10%	21	2.52	11	0.230	1.00	1.10
SB7045680KL□-□□□	68.0±10%	17	2.52	11	0.280	0.90	0.92
SB7045101KL□-□□□	100.0±10%	17	0.796	10	0.430	0.75	0.72
SB7045151KL□-□□□	150.0±10%	17	0.796	8	0.580	0.62	0.58
SB7045221KL□-□□□	220.0±10%	22	0.796	6	0.930	0.50	0.48
SB7045331KL□-□□□	330.0±10%	20	0.796	6	1.240	0.42	0.40
SB7045471KL□-□□□	470.0±10%	20	0.796	4	1.850	0.34	0.30
SB7045681KL□-□□□	680.0±10%	18	0.796	4	2.400	0.30	0.26
SB7045102KL□-□□□	1000.0±10%	48	0.252	3	4.000	0.22	0.20

1). □：Packaging information：□ Code

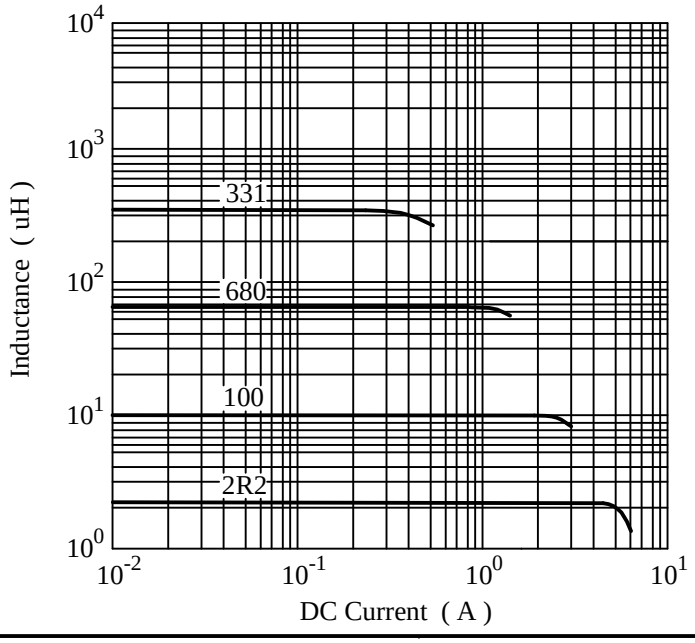
2). "-□□□"：Reference code

3). Electrical specifications at 25℃

4). Irms base on temp. rise 40℃ max.

5). Isat base on △L/L0A=10 % typ.

@ Inductance VS. DC Superposition Characteristics



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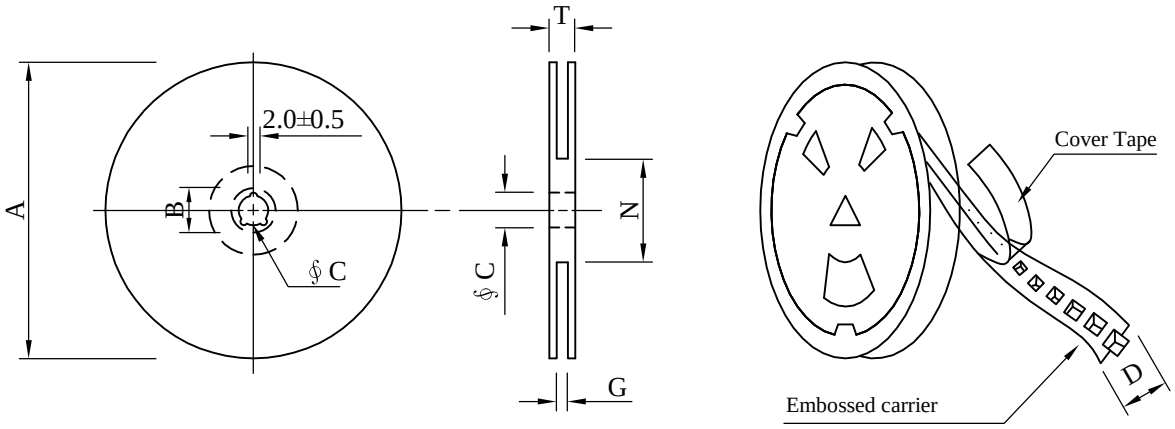
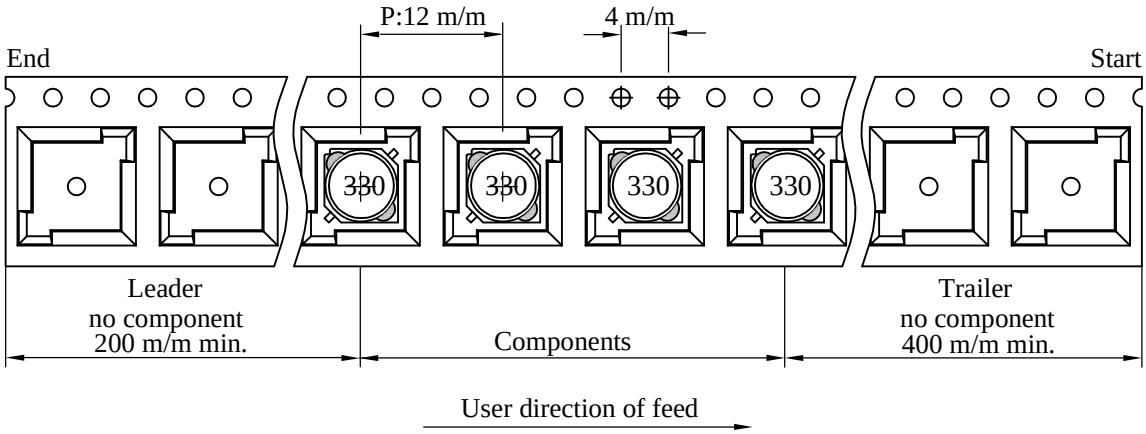
Ⅴ．Packaging information：

(1) Configuration



※Carrier Tape width : D



(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	1020	13 - 16	6,000	7.4	38 x 37 x 22

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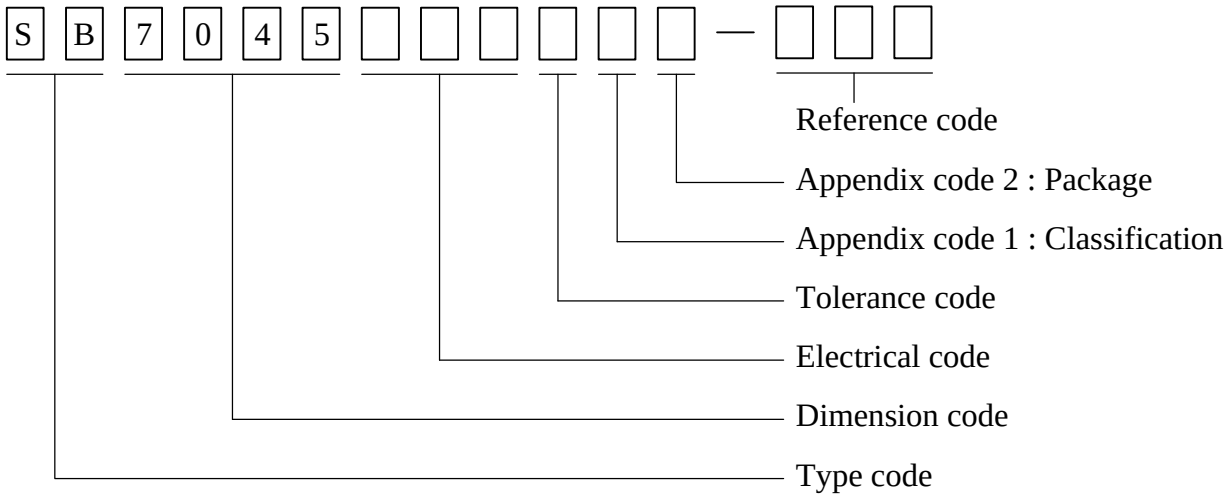
Ⅵ．Drawing number expression：



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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Ⅶ . 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 ±10%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycles. 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
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 ±10%.
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 ±10%.
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 ±10%.
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 ±10%.
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 ±10%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current	Inductance shall not drop more than 10% typ.
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 ±10%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time：6 time (Every side ofsample 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.