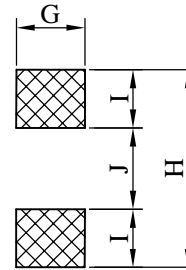
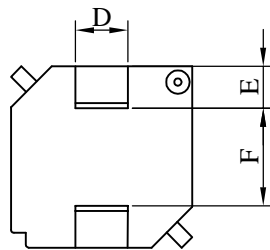
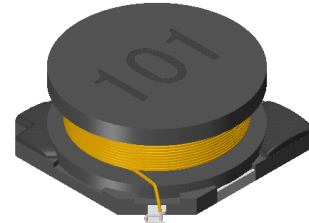
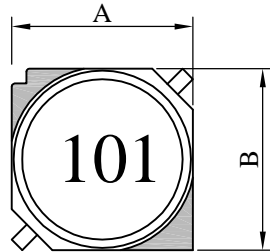


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SB1045□□□□L□-□□□		
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I . Configuration and dimensions :



(PCB Pattern)

Unit : m/m

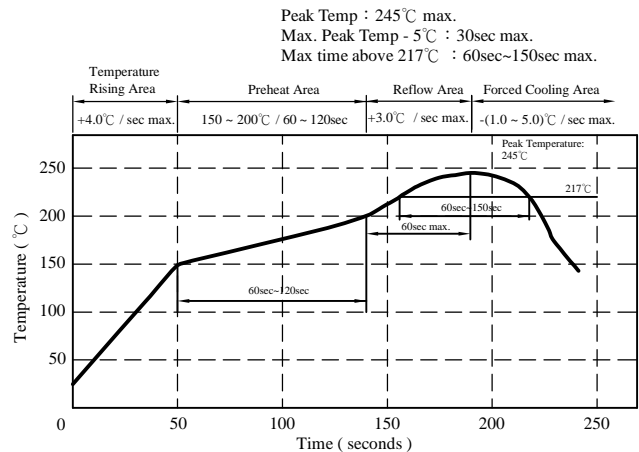
A	B	C	D	E	F	G	H	I	J
10.0±0.3	10.0±0.3	4.50±0.3	2.40 typ.	2.00 typ.	6.00 typ.	2.80 ref.	10.40 ref.	2.40 ref.	5.60 ref.

II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : F class
- c . Product weight : 1.45g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free available.

III . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- c . Resistance to solder heat : 245°C .10 secs.



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IV . Electrical characteristics :

DWG No.	L (uH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (Ω) max.	Irms (A)	Isat (A)
			L (Hz)	Q (MHz)				
SB10452R7ML□-□□□	2.7±20%	25	100K/0.1V	7.96	68.7	0.026	4.80	6.20
SB10454R5ML□-□□□	4.5±20%	25	100K/0.1V	7.96	44.2	0.033	4.20	5.20
SB10456R8ML□-□□□	6.8±20%	22	100K/0.1V	7.96	35.8	0.040	3.50	4.20
SB1045100ML□-□□□	10.0±20%	26	100K/0.1V	2.52	27.8	0.050	3.20	3.60
SB1045150ML□-□□□	15.0±20%	26	100K/0.1V	2.52	23.7	0.068	2.50	3.00
SB1045220ML□-□□□	22.0±20%	22	100K/0.1V	2.52	19.4	0.088	2.20	2.60
SB1045330ML□-□□□	33.0±20%	20	100K/0.1V	2.52	15.8	0.110	1.90	2.10
SB1045470ML□-□□□	47.0±20%	21	100K/0.1V	2.52	13.6	0.165	1.60	1.85
SB1045680ML□-□□□	68.0±20%	21	100K/0.1V	2.52	11.1	0.225	1.30	1.50
SB1045101KL□-□□□	100.0±10%	14	100K/0.1V	0.796	9.7	0.300	1.10	1.30
SB1045151KL□-□□□	150.0±10%	16	100K/0.1V	0.796	7.1	0.500	0.85	1.05
SB1045221KL□-□□□	220.0±10%	15	100K/0.1V	0.796	6.4	0.680	0.72	0.85
SB1045331KL□-□□□	330.0±10%	12	100K/0.1V	0.796	4.6	0.950	0.62	0.70
SB1045471KL□-□□□	470.0±10%	12	100K/0.1V	0.796	4.2	1.280	0.52	0.58
SB1045681KL□-□□□	680.0±10%	13	100K/0.1V	0.796	3.6	1.920	0.43	0.46
SB1045102KL□-□□□	1000.0±10%	25	100K/0.1V	0.252	2.9	2.700	0.38	0.40

- 1). □ : Packaging information : □ Code
- 2). "- □□□ " : Reference code
- 3). Electrical specifications at 25°C
- 4). Irms base on temp. rise 40°C max.
- 5). Isat base on $\Delta L/L0A=10\%$ typ.

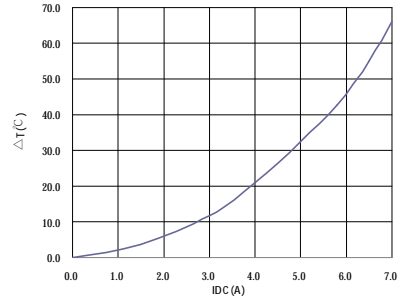
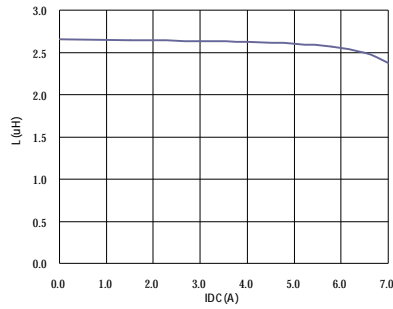
SPECIFICATION FOR APPROVAL

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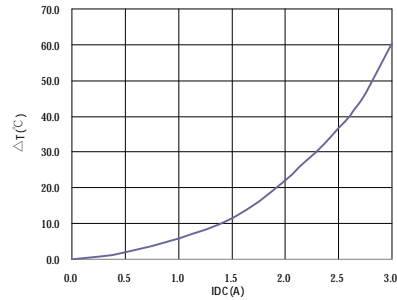
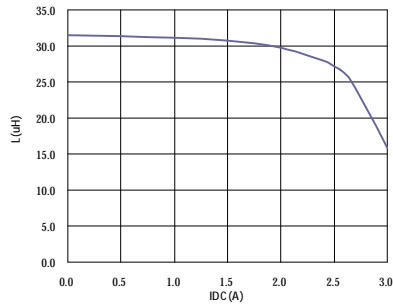
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V . Curve :

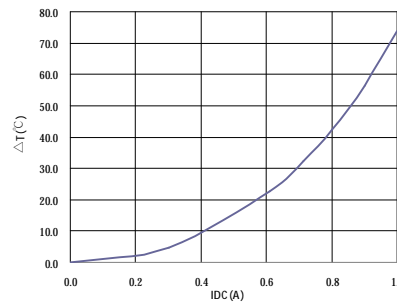
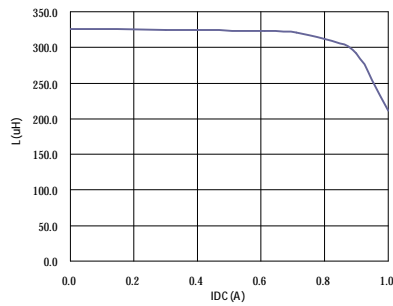
SB10452R7ML□



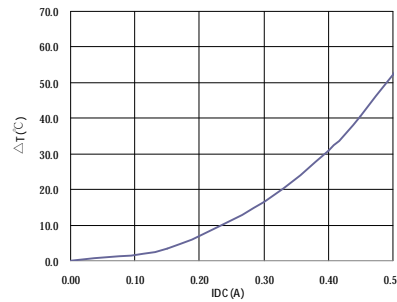
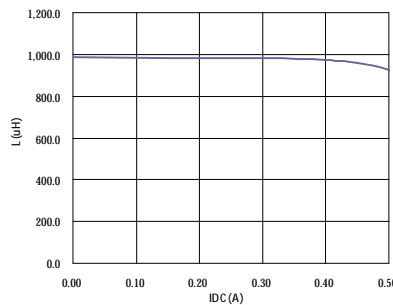
SB1045330ML□



SB1045331KL□



SB1045102KL□



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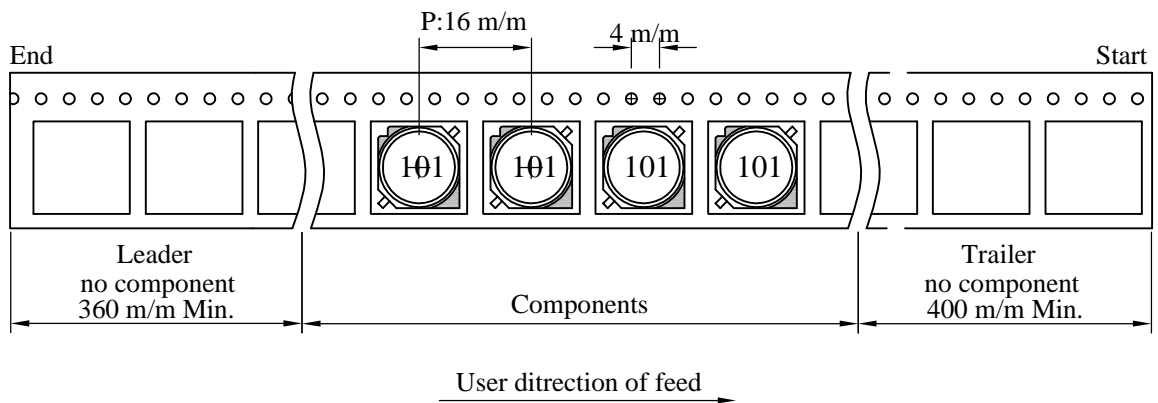
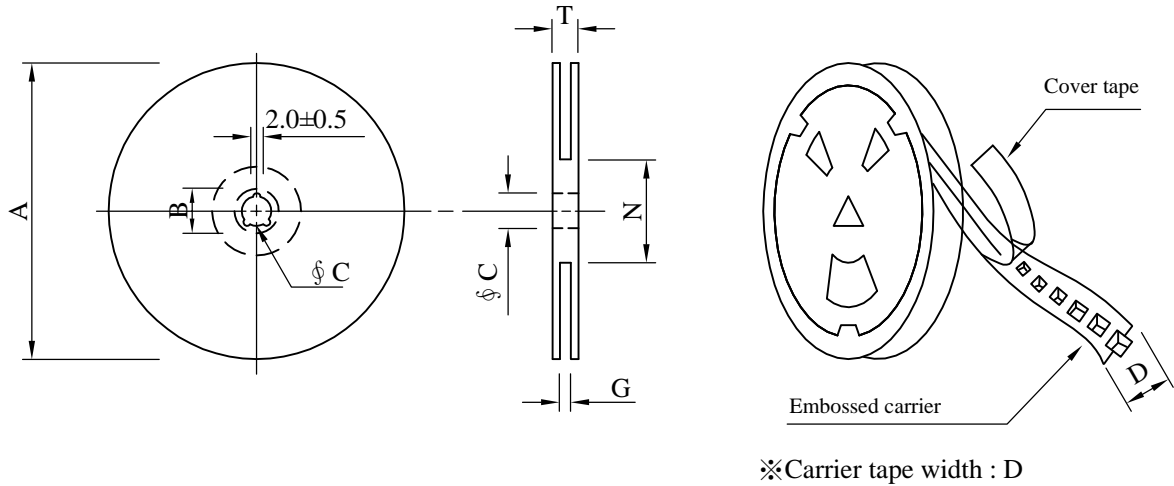
SPECIFICATION FOR APPROVAL

REF. :

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VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 ⁺⁰	60 ⁻⁰	30.4

(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	700	2000	13 - 24	2,800	9.0	38 x 37 x 22

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REF. :

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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°C 2.Time:96 hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
2.Temperature Cycling	JESD22 Method JA-104	1.Temperature: -40°C ~ 125°C 2.Number of cycle:96 cycle 3.Dwell time:30 minutes	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature: 85±5 °C 2.Time:96 Hours 3.Humidity: 85±5% RH.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
4.Operational Life	MIL-PRF-27	1.Temperature: 125°C 2.Time:96 hours. 3.Apply rated current.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
5.Exeternal Visual	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 Method JB-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 apperance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitud : 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 and electrical damage. 2.Inductance shall not change more than ±10%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210	1.Highest temperature : 245±5°C 2.Time (temp.≥ 217°C) : 60~150 Second. 3.IR reflow times : 3 times.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
10.Rated current	MIL-STD-202 Method 330	Apply rated current for 5 second.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
11.Temperature rise	MIL-PRF-27	Apply rated current for 10 minutes.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
12.Over load	MIL-PRF-27	Apply double as rated current for 5 minutes. (It's not application to some special design)	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
13.Solderability Test	J-STD-002	1.Baking in pre-testing : 155±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time (temp.≥ 217°C) : 60~150 second. 4.IR reflow times : 1 times.	The terminal shall be at least 95% covered with fresh solder.
14.Electrical Characteriazation	User Spec.	1.Operating temperature : -40°C~125°C 2.Room temperature : 25°C.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
15.Withstanding Voltage Test	MIL-STD-202 Method 201	1.DC:500V 2.Time:1minutes	1.During the test no breakdown. 2.The characteristic is normal after test.
16.Drop	JESD22-B111	Packaged & Drop down from 1m.In 1 angle lridges & 2 surfaces orientation.	1.No case deformation or change in appearance. 2.Inductance shall not change more than ±10%.
17.Terminal Strength Test	JIS-C-6429	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.

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