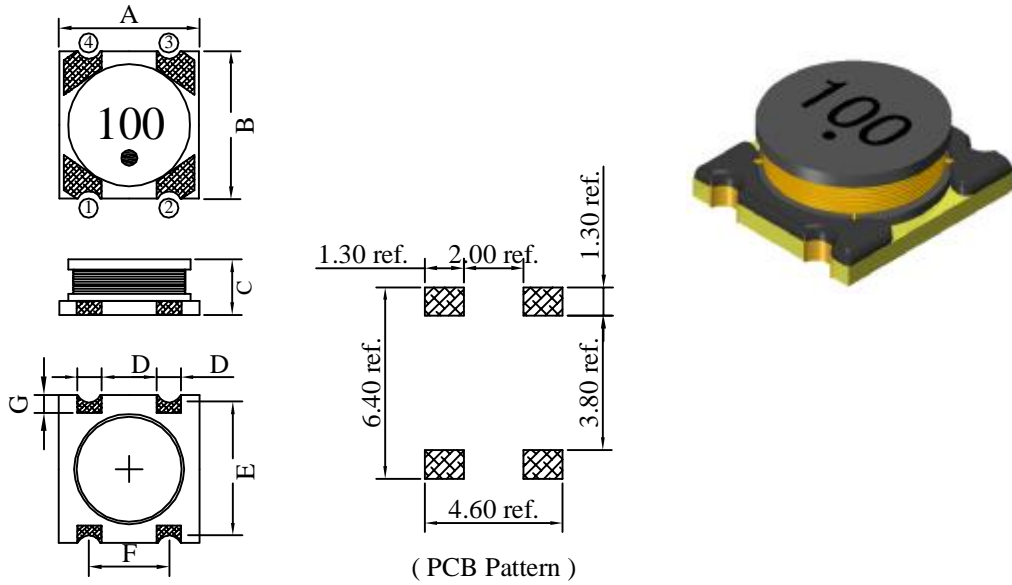


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SB5023□□□□L□-□□□		
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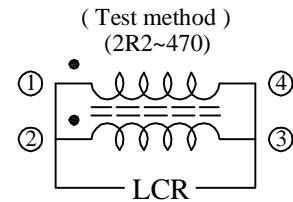
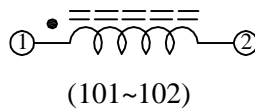
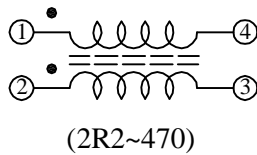
I . Configuration and dimensions :



Unit : m/m

A	B	C	D	E	F	G
5.60±0.3	6.00±0.3	2.50±0.2	1.00 typ.	5.20 typ.	3.20 typ.	0.80 ref.

II . Schematic diagram :



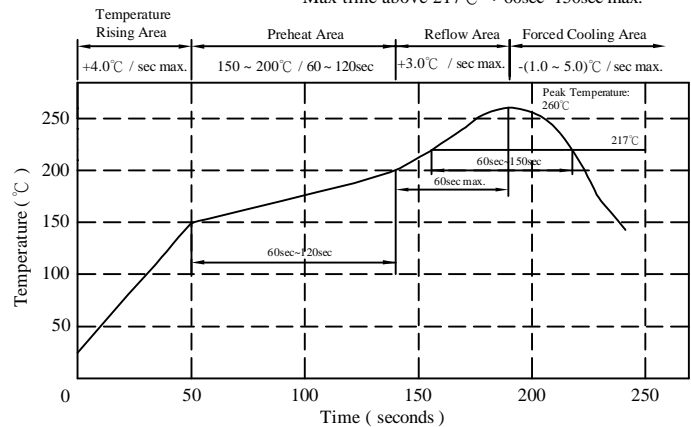
III . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : F class
- c . Product weight : 0.26g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free available.

Peak Temp : 260°C max.
Max. Peak Temp - 5°C : 30sec max.
Max time above 217°C : 60sec~150sec max.

IV . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- c . Resistance to solder heat : 260°C .10 secs.



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SPECIFICATION FOR APPROVAL

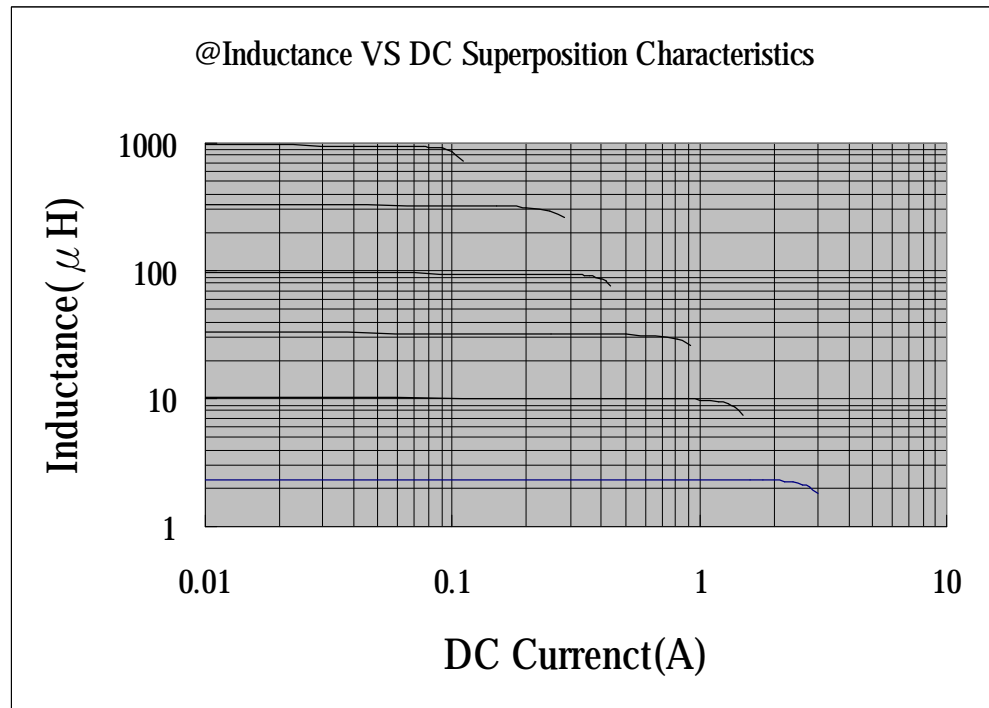
REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SB5023□□□□L□-□□□		
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V . Electrical characteristics :

DWG No.	Inductance (μ H)	Test Freq. (Hz)	RDC(Ω) max./typ.	I _{rms} (mA) max	I _{sat} (mA) typ
SB50232R2YL□-□□□	2.2±25%	100K	0.036 / 0.028	2200	2300
SB50233R3YL□-□□□	3.3±25%	100K	0.056 / 0.042	1750	1900
SB50234R7YL□-□□□	4.7±25%	100K	0.073 / 0.056	1550	1600
SB5023100YL□-□□□	10.0±25%	100K	0.136 / 0.105	1300	1150
SB5023220YL□-□□□	22.0±25%	100K	0.300 / 0.230	800	750
SB5023470YL□-□□□	47.0±25%	100K	0.620 / 0.480	520	500
SB5023101YL□-□□□	100.0±15%	100K	1.100 / 0.900	350	360
SB5023221YL□-□□□	220.0±15%	100K	2.400 / 2.000	270	250
SB5023471YL□-□□□	470.0±15%	100K	5.500 / 4.600	180	160
SB5023102YL□-□□□	1000.0±15%	100K	13.50 / 11.50	100	85

- | | |
|---|---|
| 1). □: Packaging information : □ Code
2). "-□□□" : Reference code
3). Electrical specifications at 25°C | 4). Inductance test freq. : 100KHz / 0.1V
5). I _{rms} base on temp. rise 40°C max.
6). I _{sat} base on $\Delta L/L0A=10\%$ typ. |
|---|---|



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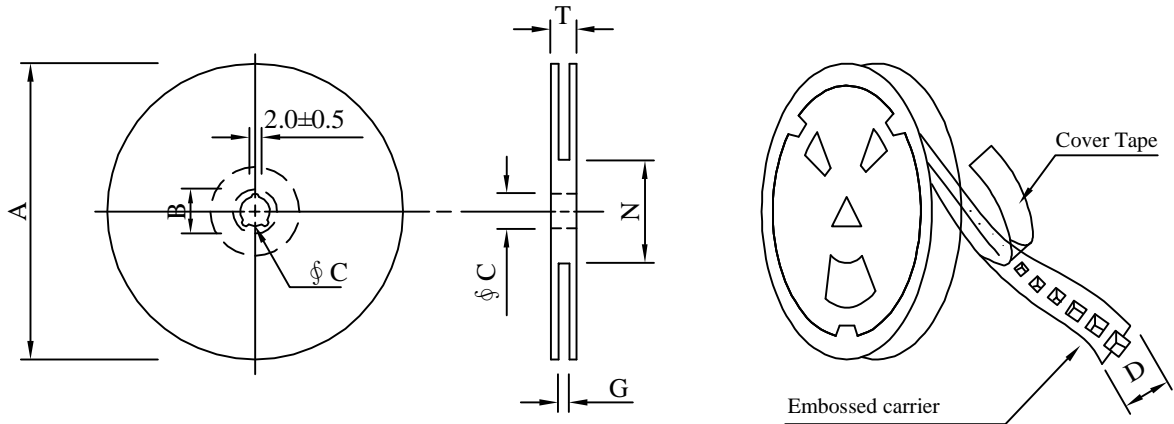
SPECIFICATION FOR APPROVAL

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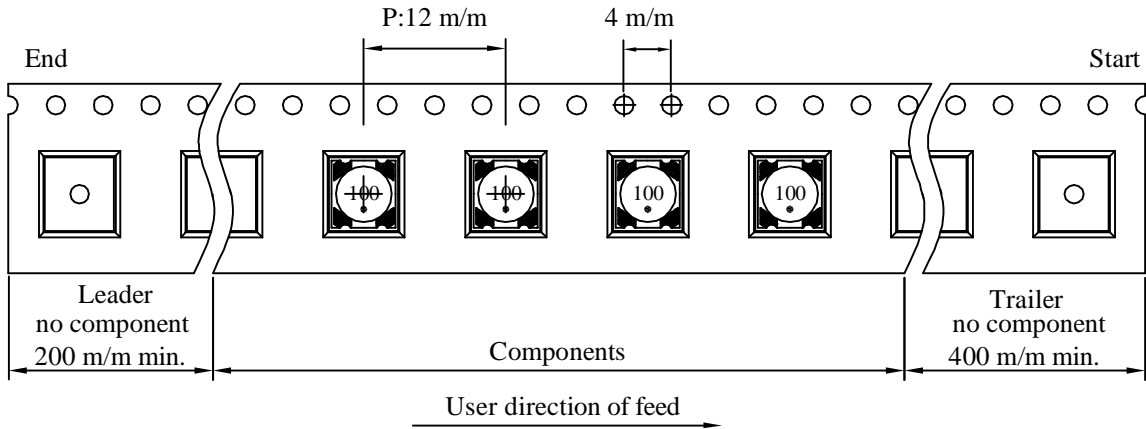
PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SB5023□□□□L□-□□□		
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VI . Packaging information :

(1) Configuration



※Carrier Tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07-16	178	21±0.8	13	16	18 ⁺⁰	50 ⁻⁰	20.5

(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	400	600	07-16	12,000	6.00	42 x 41 x 24

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SPECIFICATION FOR APPROVAL

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℃ 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℃ ~ 125℃ 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℃ 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℃ 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 their 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 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 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 : 260±5℃ 2.Time (temp. ≥ 217℃) : 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 twice 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℃ / 16Hours±30 min. 2.Peak temperature : 240±5℃ 3.Time (temp. ≥ 217℃) : 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℃~125℃ 2.Room temperature : 25℃.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±10%.
15.Withstanding Voltage Test	MIL-STD-202 Method 201	1.DV: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 1ridges & 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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