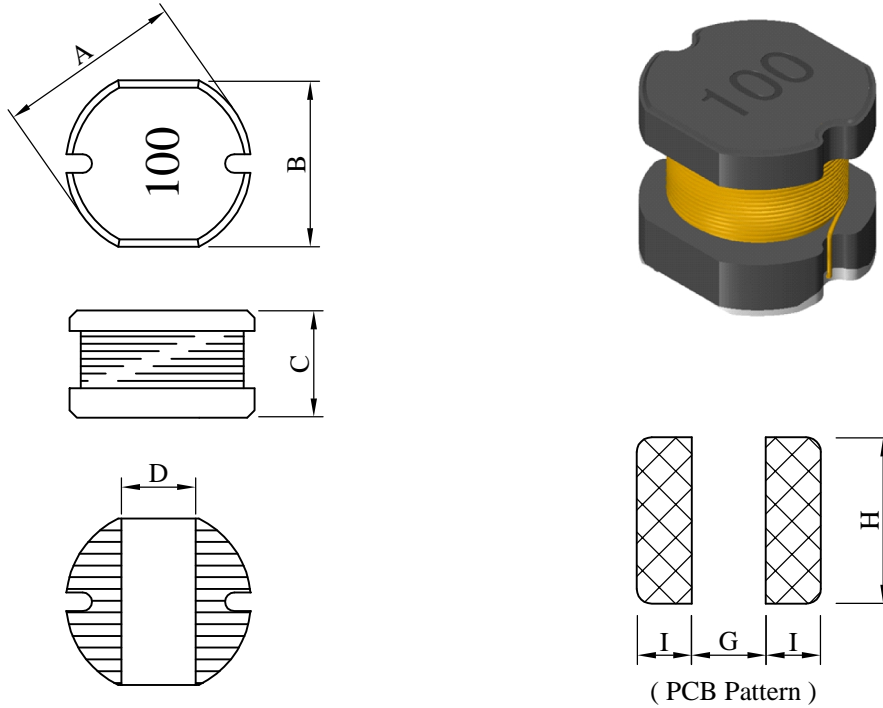


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0302□□□□L□-□□□		
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## I . Configuration and dimensions :



( PCB Pattern )

Unit : m/m

A	B	C	D	G	H	I
3.20 ±0.3	2.80 ±0.3	2.50 ±0.3	0.90 typ.	0.80 ref.	3.00 ref.	1.40 ref.

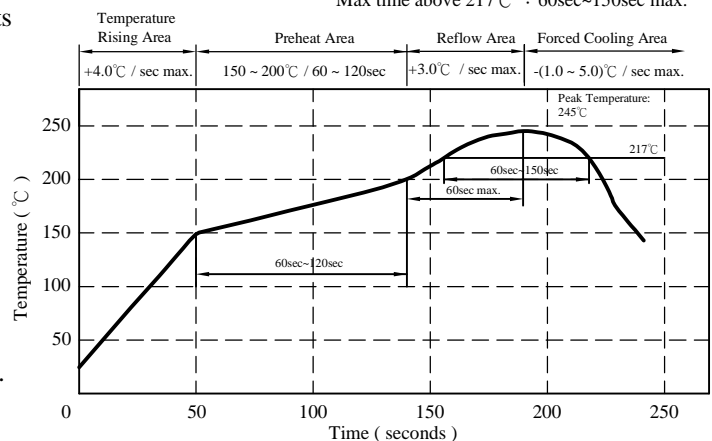
## II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.10g ( ref. )
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free available

Peak Temp : 245°C max.  
Max. Peak Temp - 5°C : 30sec max.  
Max time above 217°C : 60sec~150sec max.

## 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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# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0302□□□□L□-□□□		
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## IV . Electrical characteristics :

DWG No.	Inductance ( $\mu$ H)	SRF (MHz) typ.	RDC (m $\Omega$ )		Isat (A) typ.	Irms (A) typ.
			typ.	max.		
BR03021R0ML□-□□□	1.0 $\pm$ 20%	90.0	34.0	46.0	3.50	2.70
BR03021R5ML□-□□□	1.5 $\pm$ 20%	80.0	44.5	60.0	2.80	2.30
BR03022R2ML□-□□□	2.2 $\pm$ 20%	75.0	66.0	85.0	2.30	1.90
BR03023R3ML□-□□□	3.3 $\pm$ 20%	65.0	86.0	112.0	1.90	1.70
BR03024R7ML□-□□□	4.7 $\pm$ 20%	48.0	116.0	150.0	1.50	1.40
BR03025R6ML□-□□□	5.6 $\pm$ 20%	44.0	130.5	170.0	1.40	1.30
BR03026R8ML□-□□□	6.8 $\pm$ 20%	40.0	151.0	190.0	1.30	1.20
BR03028R2ML□-□□□	8.2 $\pm$ 20%	36.0	180.0	225.0	1.20	1.10
BR0302100ML□-□□□	10.0 $\pm$ 20%	32.0	195.0	245.0	1.10	1.00
BR0302120ML□-□□□	12.0 $\pm$ 20%	30.0	253.0	315.0	1.00	0.90
BR0302150ML□-□□□	15.0 $\pm$ 20%	28.0	325.5	410.0	0.90	0.80
BR0302180ML□-□□□	18.0 $\pm$ 20%	25.0	415.0	520.0	0.80	0.70
BR0302220ML□-□□□	22.0 $\pm$ 20%	20.0	500.0	625.0	0.70	0.65
BR0302270ML□-□□□	27.0 $\pm$ 20%	18.5	586.0	735.0	0.65	0.60
BR0302330ML□-□□□	33.0 $\pm$ 20%	17.0	657.0	820.0	0.60	0.55

- 1). □: Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance Test Condition. : 100kHz / 0.1V
- 5). Isat base on  $\Delta$ L/L0A=10% typ. (Approximately transient current)
- 6). Irms base on Temp. rise 40°C typ.

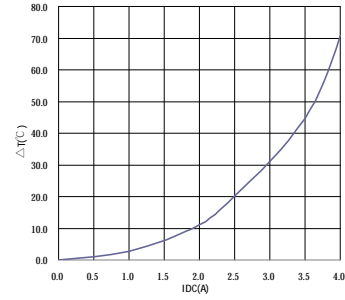
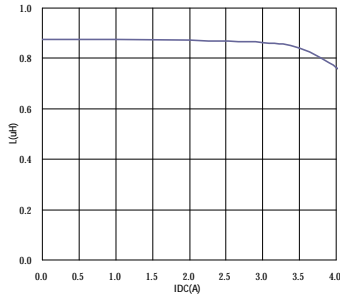
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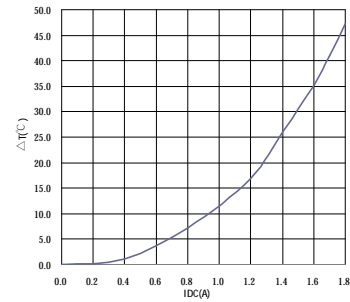
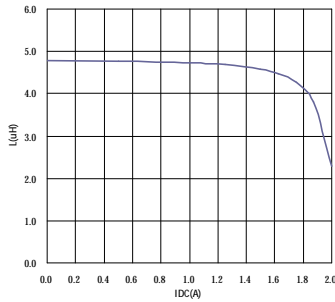
PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0302□□□□L□-□□□		
		REV.	20150511-B	PAGE	3

V . Curve :

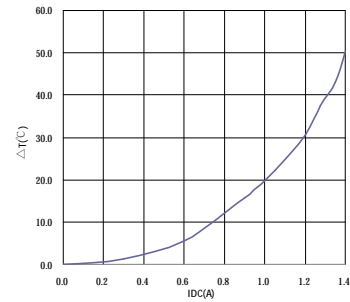
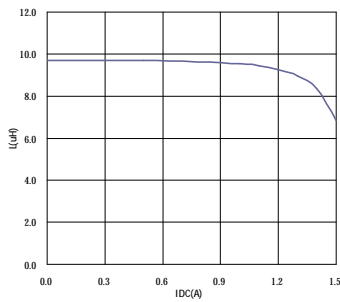
BR03021R0ML□



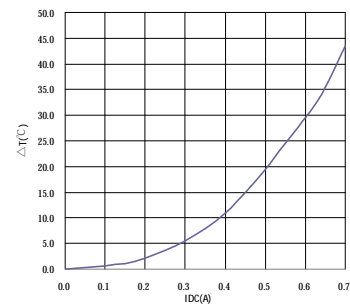
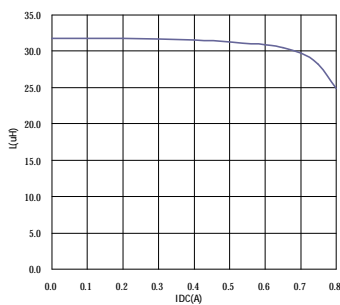
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BR0302100ML□



BR0302330ML□



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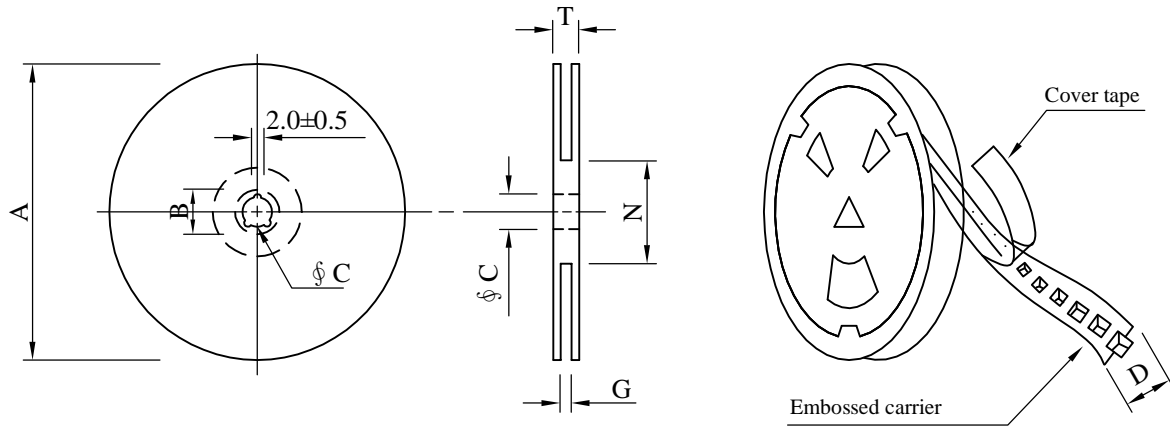
# SPECIFICATION FOR APPROVAL

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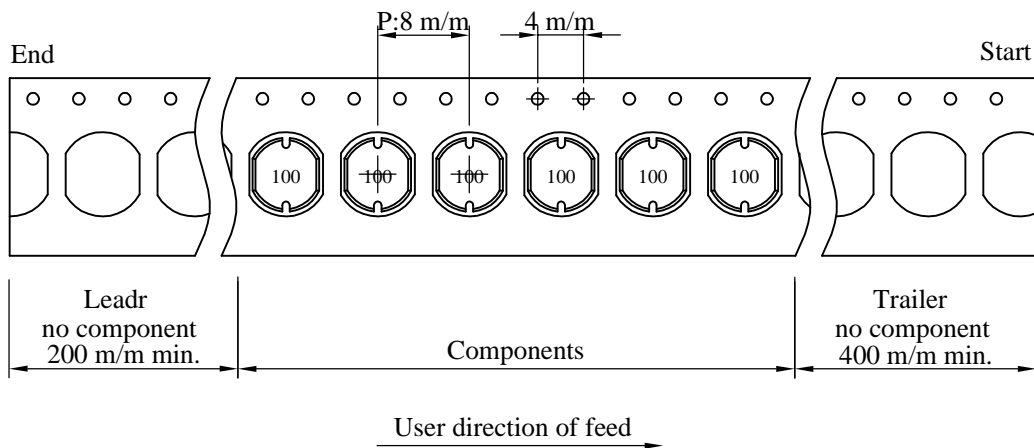
PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0302□□□□L□-□□□		
		REV.	20150511-B	PAGE	4

## VI . Packaging information :

### (1) Configuration



※Carrier tape width : D



### (2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 12	330	21±0.8	13±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4

### (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	2,000	370	13 - 12	16,000	4.5	38 x 37 x 22

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# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0302□□□□L□-□□□		
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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 cycle 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 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 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 : 245±5℃. 2.Time ( temp. ≥ 217℃ ) : 60~150 Second. 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 second. 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 ℃ typ.
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 second. 4.IR reflow times : 1 times.	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 time)	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.

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