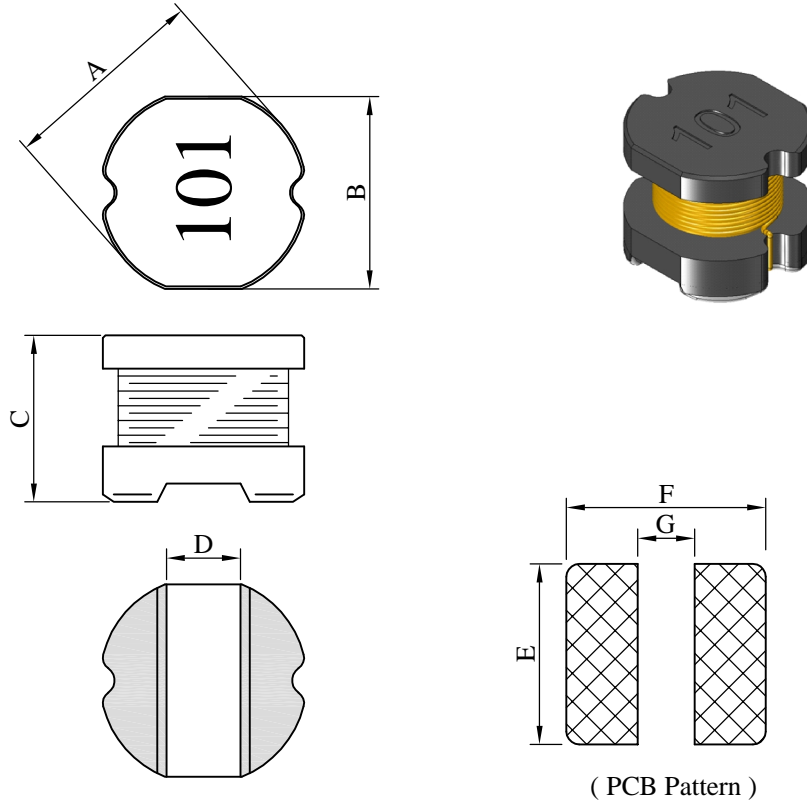


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	BR0604□□□□L□-□□□		
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I . Configuration and dimensions :



Unit : m/m

A	B	C	D	E	F	G
5.60 ±0.2	5.20 ±0.2	4.50 ±0.3	2.30 ref.	5.80 ref.	6.00 ref.	1.70 ref.

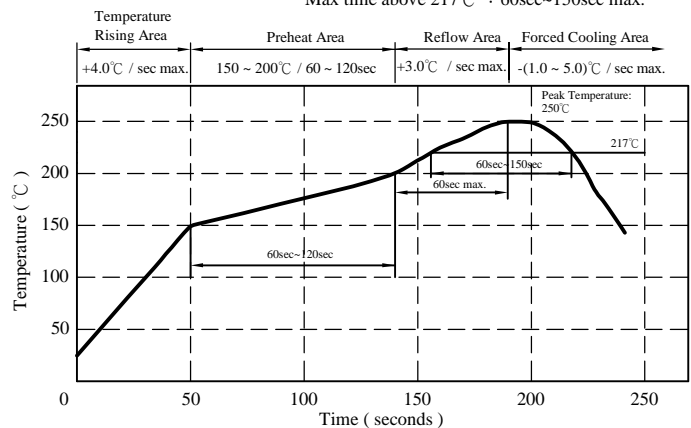
II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.360g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free available

Peak Temp : 250°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 : 250°C .10 secs.



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IV . Electrical characteristics :

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC (Ω)		Isat (A) typ.	Irms (A) typ.
			typ.	max.		
BR06041R2ML□-□□□	1.2±20%	155.0	0.017	0.020	5.60	4.40
BR06041R5ML□-□□□	1.5±20%	108.0	0.019	0.024	5.00	4.00
BR06042R2ML□-□□□	2.2±20%	79.0	0.021	0.031	4.50	3.80
BR06042R7ML□-□□□	2.7±20%	65.0	0.034	0.055	3.80	3.00
BR06043R3ML□-□□□	3.3±20%	60.0	0.037	0.060	3.40	2.90
BR06043R9ML□-□□□	3.9±20%	40.0	0.040	0.065	3.20	2.80
BR06044R7ML□-□□□	4.7±20%	34.0	0.044	0.070	3.00	2.70
BR06045R6ML□-□□□	5.6±20%	30.0	0.048	0.075	2.80	2.60
BR06046R8ML□-□□□	6.8±20%	28.0	0.056	0.080	2.50	2.40
BR06048R2ML□-□□□	8.2±20%	26.0	0.060	0.090	2.30	2.20
BR0604100ML□-□□□	10.0±20%	23.0	0.074	0.100	2.10	2.10
BR0604120ML□-□□□	12.0±20%	22.0	0.084	0.120	1.90	1.90
BR0604150YL□-□□□	15.0±15%	20.0	0.111	0.140	1.70	1.70
BR0604180YL□-□□□	18.0±15%	18.0	0.123	0.150	1.60	1.60
BR0604220YL□-□□□	22.0±15%	16.0	0.159	0.190	1.40	1.40
BR0604270YL□-□□□	27.0±15%	14.0	0.186	0.220	1.25	1.25
BR0604330KL□-□□□	33.0±10%	13.0	0.208	0.250	1.20	1.20
BR0604390KL□-□□□	39.0±10%	13.0	0.253	0.320	1.10	1.10
BR0604470KL□-□□□	47.0±10%	12.0	0.320	0.370	1.00	1.00
BR0604560KL□-□□□	56.0±10%	11.0	0.350	0.420	0.90	0.90
BR0604680KL□-□□□	68.0±10%	10.0	0.452	0.520	0.80	0.80
BR0604820KL□-□□□	82.0±10%	9.0	0.515	0.600	0.75	0.75
BR0604101KL□-□□□	100.0±10%	8.5	0.588	0.700	0.70	0.70
BR0604121KL□-□□□	120.0±10%	6.6	0.797	0.930	0.62	0.62
BR0604151KL□-□□□	150.0±10%	6.2	0.916	1.100	0.57	0.57
BR0604181KL□-□□□	180.0±10%	6.0	1.028	1.380	0.53	0.53
BR0604221KL□-□□□	220.0±10%	5.6	1.193	1.570	0.48	0.48
BR0604271KL□-□□□	270.0±10%	3.9	1.535	1.880	0.42	0.42
BR0604331KL□-□□□	330.0±10%	3.3	1.911	2.250	0.38	0.40
BR0604391KL□-□□□	390.0±10%	3.1	2.111	2.480	0.35	0.38
BR0604471KL□-□□□	470.0±10%	2.9	2.775	3.300	0.30	0.33
BR0604561KL□-□□□	560.0±10%	2.5	3.401	4.000	0.28	0.30
BR0604681KL□-□□□	680.0±10%	2.3	3.883	4.650	0.26	0.26
BR0604821KL□-□□□	820.0±10%	2.0	4.500	5.200	0.24	0.24

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

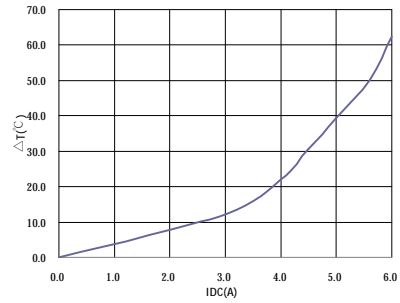
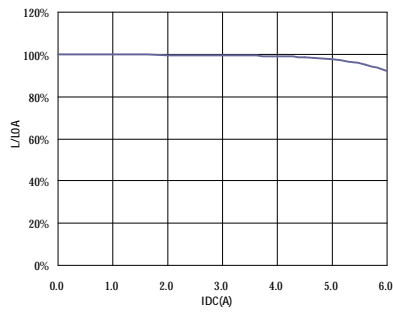
SPECIFICATION FOR APPROVAL

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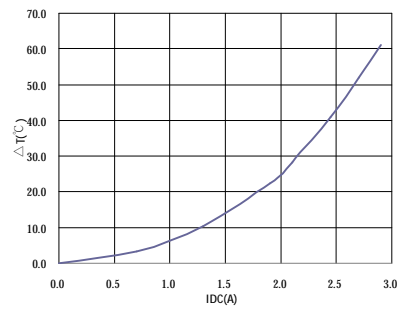
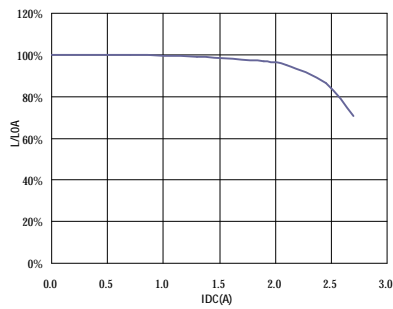
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V . Curve :

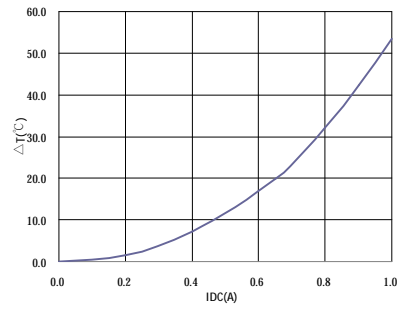
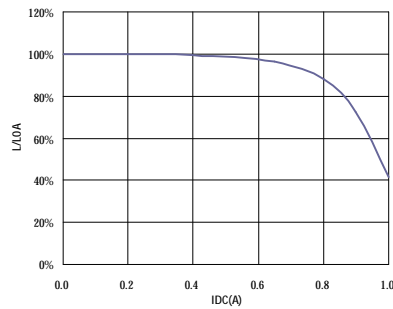
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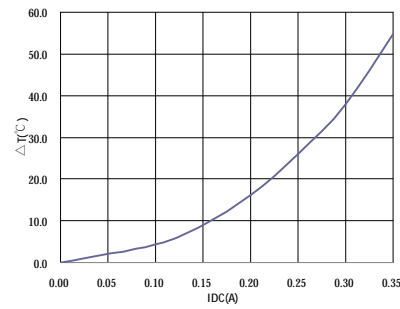
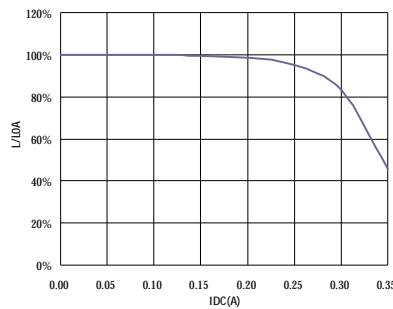
BR0604100ML□



BR0604101KL□



BR0604821KL□



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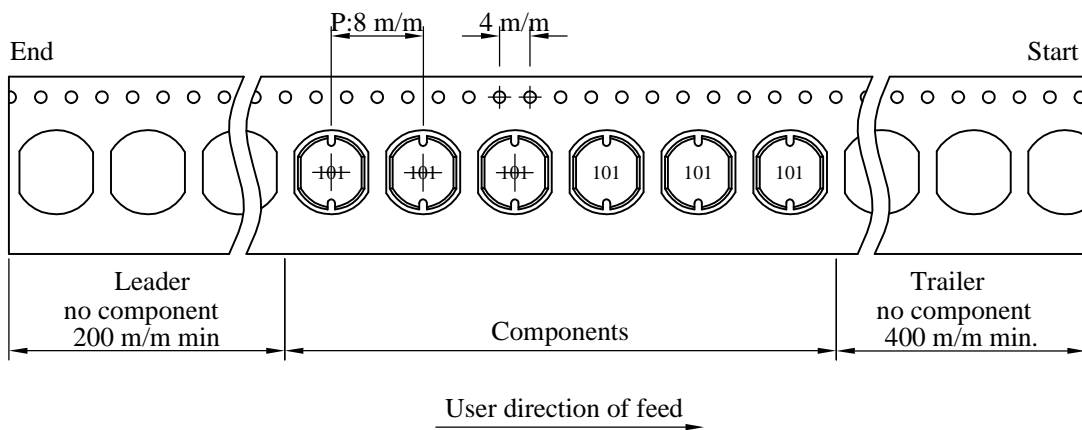
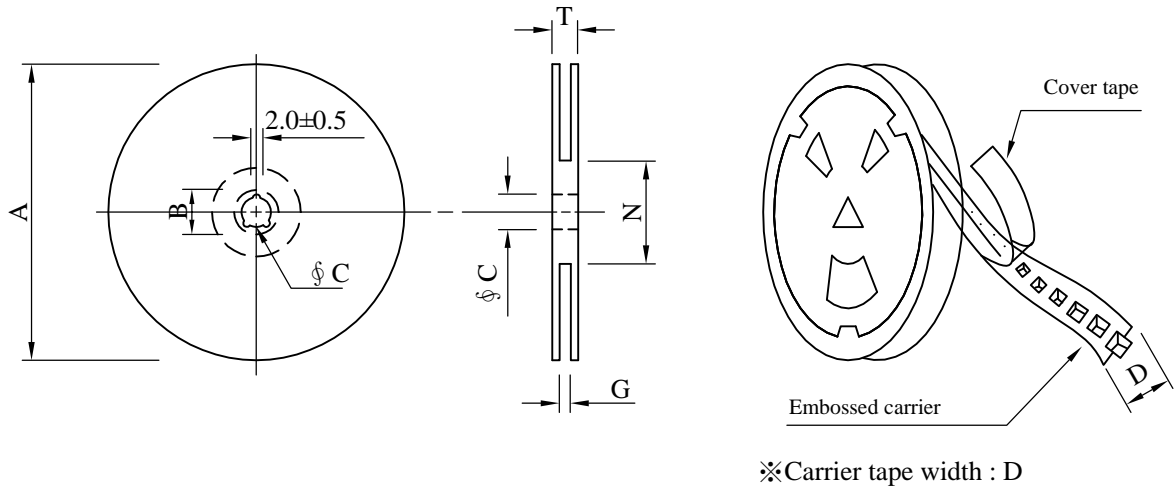
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VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 12	330	21±0.8	13±0.5	12	14 ⁺⁰	50 ⁻⁰	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	1,500	880	13 - 12	12,000	8.2	38 x 37 x 22

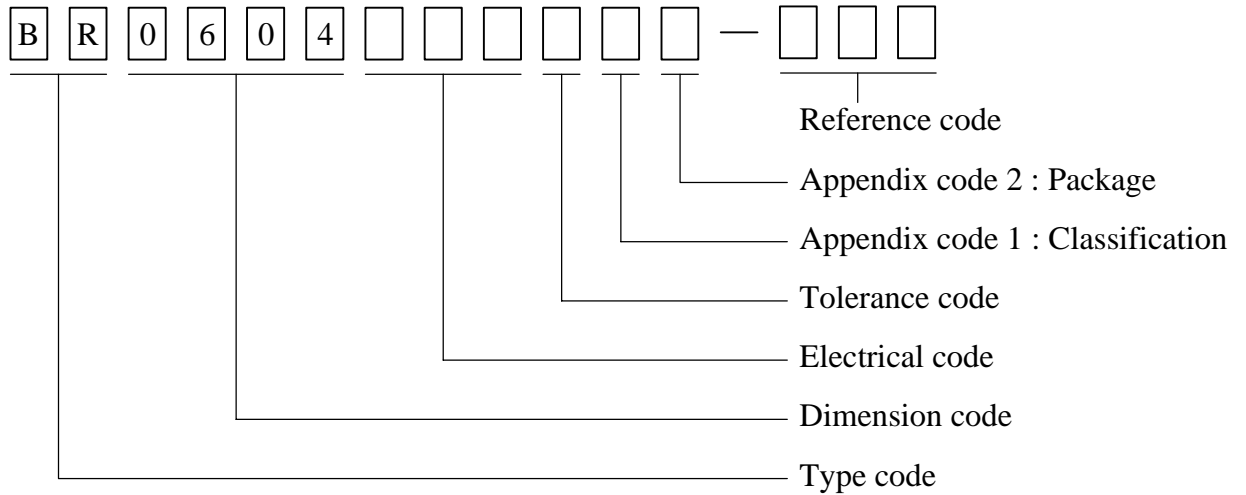
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VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package QTY	Remark
B	T/R (Reel package)	UCT	Antistatic	Antistatic	1500 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 ±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 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 : 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 ℃ 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 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 times. (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.

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IX . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20121115-A	Released	Miz Hsieh	Nick Chen	Nick Chen
20150511-B	Modify the Reliability test			
20160728-C	1. Add Change history and Drawing number expression 2. Change the current curve format	Miz Hsieh	Nick Chen	Nick Chen

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