

SPECIFICATION FOR APPROVAL

REF. :

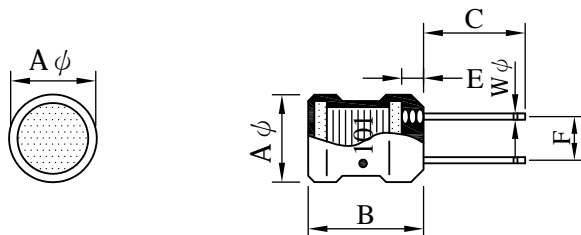
PROD. NAME	Radial Inductor	ABC'S DWG NO.	RB0912□□□□L□-□□□		
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I . Configuration and dimensions :

Marking :

" ● " : Start

● 101----100 uH (Inductance code)



Unit : m/m

$A\phi$	B	C	E	F	$W\phi$
8.70 ±0.5	10.00 ±1.0	5.00 ±1.0	2.50 max.	5.00 ±0.8	0.65

II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : F class
- c . Product weight : 1.73g (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.)

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IV . Electrical characteristics :

DWG No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (Ω) max.	Isat (A) typ.	Irms (A) typ.
			L	Q				
RB09121R5ML□-□□□	1.5 \pm 20%	30	1k	7.960M	78.0	0.008	8.00	6.00
RB09122R2ML□-□□□	2.2 \pm 20%	30	1k	7.960M	63.0	0.010	7.50	5.30
RB09123R3ML□-□□□	3.3 \pm 20%	30	1k	7.960M	50.0	0.018	6.50	4.50
RB09124R7ML□-□□□	4.7 \pm 20%	30	1k	7.960M	41.0	0.022	5.00	4.00
RB09126R8ML□-□□□	6.8 \pm 20%	30	1k	7.960M	33.0	0.028	4.30	3.70
RB0912100KL□-□□□	10.0 \pm 10%	60	1k	2.520M	27.0	0.043	3.60	2.50
RB0912150KL□-□□□	15.0 \pm 10%	50	1k	2.520M	21.0	0.056	3.00	2.30
RB0912220KL□-□□□	22.0 \pm 10%	50	1k	2.520M	17.0	0.086	2.50	2.10
RB0912330KL□-□□□	33.0 \pm 10%	45	1k	2.520M	13.0	0.140	2.00	1.70
RB0912470KL□-□□□	47.0 \pm 10%	40	1k	2.520M	11.0	0.170	1.70	1.50
RB0912680KL□-□□□	68.0 \pm 10%	35	1k	2.520M	9.0	0.280	1.50	1.35
RB0912101KL□-□□□	100.0 \pm 10%	55	1k	0.796M	7.2	0.330	1.20	1.00
RB0912151KL□-□□□	150.0 \pm 10%	40	1k	0.796M	5.7	0.560	1.00	0.92
RB0912221KL□-□□□	220.0 \pm 10%	30	1k	0.796M	4.5	0.720	0.80	0.80
RB0912331KL□-□□□	330.0 \pm 10%	25	1k	0.796M	3.6	1.100	0.62	0.70
RB0912471KL□-□□□	470.0 \pm 10%	25	1k	0.796M	2.9	1.700	0.52	0.60
RB0912681KL□-□□□	680.0 \pm 10%	25	1k	0.796M	2.3	2.300	0.42	0.50
RB0912102KL□-□□□	1000.0 \pm 10%	55	1k	0.252M	1.9	4.300	0.35	0.40

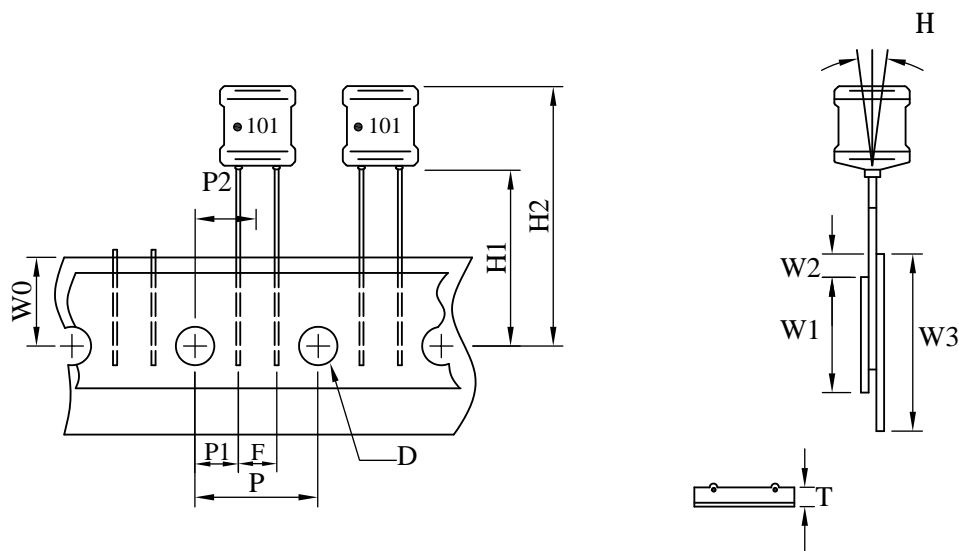
- 1). Electrical specifications at 25°C
- 2). Isat base on $\Delta L / L_{0A} = 10\%$ typ. (Approximately transient current)
- 3). Irms base on Temp. rise 40°C typ.

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V . Packaging information :



Note : color code without regular direction

※ 500 Pcs / Reel

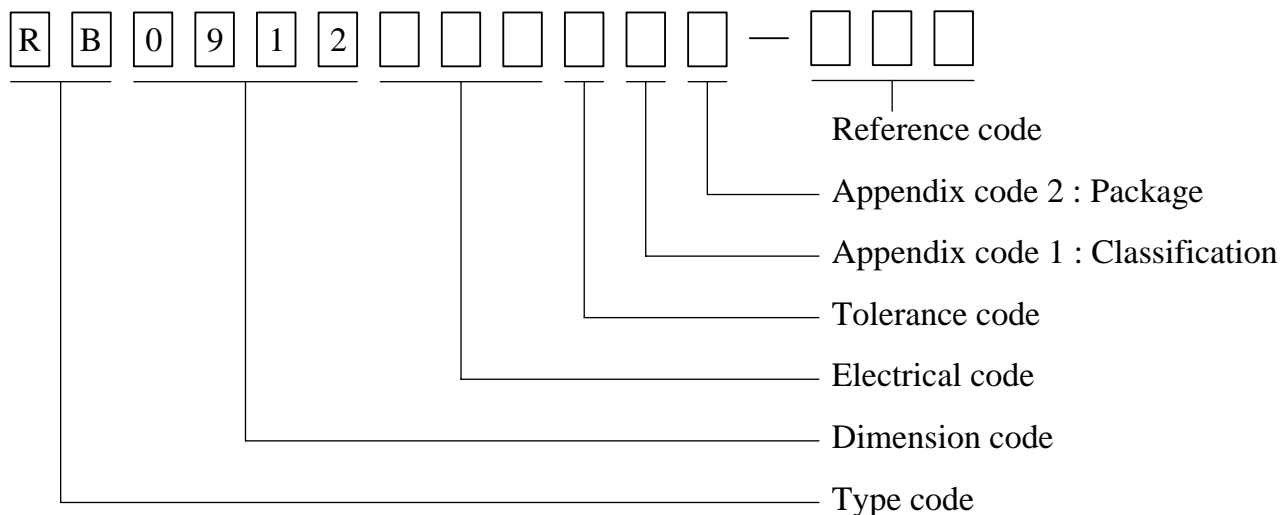
Item	Symbol	Specification			
		Milimeter		Inch	
		Size	Tolerance	Size	Tolerance
Tape feed hole diameter	D	4.00	±0.20	0.157	±0.008
Component lead pitch	F	5.00	±0.80	0.197	±0.031
Front-to-rear deflection	H	2.00	max.	0.079	max.
Feed hole to bottom of component	H1	18.50	±0.80	0.728	±0.031
Feed hole to overall component height	H2	32.00	max.	1.260	max.
Feed hole pitch	P	12.70	±0.30	0.500	±0.012
Lead location	P1	3.85	±0.70	0.152	±0.028
Center of component location	P2	6.35	±1.30	0.250	±0.051
Overall taped package thickness	T	1.42	max.	0.056	max.
Feed hole location	W0	9.00	±0.50	0.354	±0.020
Adhesive tape width	W1	15.00	±0.50	0.591	±0.020
Adhesive tape position	W2	4.00	max.	0.157	max.
Tape width	W3	18.00	±0.50	0.709	±0.020

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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
A	Box	N / A	N / A	N / A	200 pcs	
B	Bag	N / A	N / A	Non-antistatic	200 pcs	OEL
C	T.B.D.	N / A	N / A	N / A	T.B.D.	
D	T / B (Box package)	Adhesive	Paper tape	N / A	1000 pcs	
E	Tray	N / A	N / A	N / A	160 pcs	
F	T / R (Reel Package)	Adhesive	Paper tape	N / A	500 pcs	
G	Box	N / A	N / A	N / A	200 pcs	Long L/W

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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 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	1.Method : Dip 2.Temperature : 260±5℃ 3.Time : 10 second. 4.Number of 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.Rated 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.Dip pads in flux then dip in solder pot at 240±5℃ for 5 senconds.	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 height of 1m 2.Drop total time : 6 times (Every side of sample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Strength Test	MIL-STD-202 Method 211	1.Apply pull force to samples of terminals 2.Force of 910g for 60±1 seconds.	After test, inductors shall be no mechanical damage.

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VIII . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20080714-A	Change Packaging information	Leo Liang	Nick Chen	Nick Chen
20080721-B	Add the G packaging			
20090331-C	Change Packaging information			
20091221-D	Modify the Operating temp. from -25~+85°C to -40~105°C			
20130617-E	1. Modify the Reliability test 2. Modify the Operating temp. from -40°C ~ +105°C to -40°C ~ +125°C 3. Modify the Storage temp. from -25 ~ +85°C to -40°C ~ +125°C			
20160127-F	1. Modify the Packaging information 2. Modify the marking Inductance code			
20161220-G	1. Modify the Electrical characteristics 2. Add Change history and Dwging number expression 3. Modify the marking Inductance code	Leo Liang	Nick Chen	Nick Chen