

SPECIFICATION FOR APPROVAL

REF. :

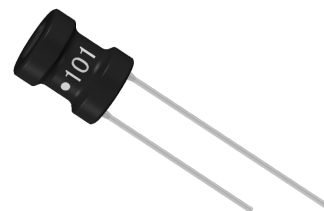
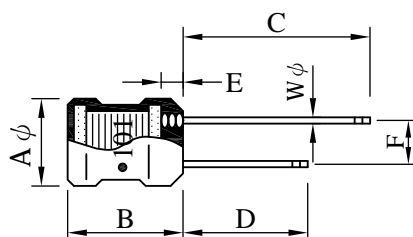
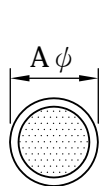
PROD. NAME	Radial Inductor	ABC'S DWG NO.	RB1014□□□□L□-□□□		
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I . Configuration and dimensions :

Marking :

" ● " : Start

● 101----100 uH (Inductance Code)



Unit : m/m

Aφ	B	C	D	E	F	Wφ
8.70 ±0.5	12.00 ±1.0	25.00 ±5.0	18.00 ±5.0	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 : 2.43g (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 min.	Test Freq. (KHz)		SRF (MHz) min.	RDC (Ω) max.	Isat (A) typ.	Irms (A) typ.
			L	Q				
RB1014101KL□-□□□	100 \pm 10%	45	796.0		3.20	0.85	2.000	0.780
RB1014121KL□-□□□	120 \pm 10%	45	796.0		3.00	0.95	1.930	0.740
RB1014151KL□-□□□	150 \pm 10%	45	796.0		2.80	1.05	1.800	0.680
RB1014181KL□-□□□	180 \pm 10%	45	796.0		2.50	1.15	1.550	0.650
RB1014221KL□-□□□	220 \pm 10%	40	796.0		2.10	1.30	1.450	0.620
RB1014271KL□-□□□	270 \pm 10%	40	796.0		2.00	1.50	1.330	0.600
RB1014331KL□-□□□	330 \pm 10%	40	796.0		1.95	1.70	1.180	0.550
RB1014391KL□-□□□	390 \pm 10%	40	796.0		1.85	1.85	1.100	0.500
RB1014471KL□-□□□	470 \pm 10%	35	796.0		1.55	2.30	1.000	0.450
RB1014561KL□-□□□	560 \pm 10%	35	796.0		1.30	2.55	0.950	0.430
RB1014681KL□-□□□	680 \pm 10%	35	796.0		1.15	2.85	0.850	0.420
RB1014821KL□-□□□	820 \pm 10%	35	796.0		1.00	3.10	0.800	0.400
RB1014102KL□-□□□	1000 \pm 10%	50	252.0		0.90	4.10	0.600	0.360
RB1014122KL□-□□□	1200 \pm 10%	50	252.0		0.80	4.70	0.360	0.340
RB1014152KL□-□□□	1500 \pm 10%	50	252.0		0.70	5.80	0.320	0.300
RB1014182KL□-□□□	1800 \pm 10%	50	252.0		0.60	7.40	0.300	0.280
RB1014222KL□-□□□	2200 \pm 10%	50	252.0		0.55	8.40	0.270	0.260
RB1014272KL□-□□□	2700 \pm 10%	50	252.0		0.50	9.60	0.250	0.240
RB1014332KL□-□□□	3300 \pm 10%	50	252.0		0.45	10.50	0.230	0.220
RB1014392KL□-□□□	3900 \pm 10%	50	252.0		0.40	12.00	0.210	0.210
RB1014472KL□-□□□	4700 \pm 10%	45	252.0		0.38	14.00	0.195	0.190
RB1014562KL□-□□□	5600 \pm 10%	45	252.0		0.36	16.00	0.180	0.170
RB1014682KL□-□□□	6800 \pm 10%	40	252.0		0.34	18.00	0.165	0.160
RB1014822KL□-□□□	8200 \pm 10%	40	252.0		0.32	24.50	0.155	0.150
RB1014103KL□-□□□	10000 \pm 10%	50	79.6		0.30	32.00	0.145	0.135
RB1014123KL□-□□□	12000 \pm 10%	50	79.6		0.28	36.00	0.130	0.125
RB1014153KL□-□□□	15000 \pm 10%	50	79.6		0.26	48.00	0.110	0.100
RB1014183KL□-□□□	18000 \pm 10%	45	79.6		0.24	52.00	0.100	0.096
RB1014223KL□-□□□	22000 \pm 10%	45	79.6		0.22	58.00	0.095	0.092
RB1014273KL□-□□□	27000 \pm 10%	45	79.6		0.20	62.00	0.085	0.082
RB1014333KL□-□□□	33000 \pm 10%	45	79.6		0.18	90.00	0.075	0.074
RB1014393KL□-□□□	39000 \pm 10%	40	79.6		0.17	100.00	0.072	0.070
RB1014473KL□-□□□	47000 \pm 10%	35	79.6		0.16	150.00	0.065	0.060
RB1014563KL□-□□□	56000 \pm 10%	35	79.6		0.15	200.00	0.060	0.052
RB1014683KL□-□□□	68000 \pm 10%	35	79.6		0.14	220.00	0.056	0.046
RB1014823KL□-□□□	82000 \pm 10%	30	79.6		0.12	240.00	0.052	0.044

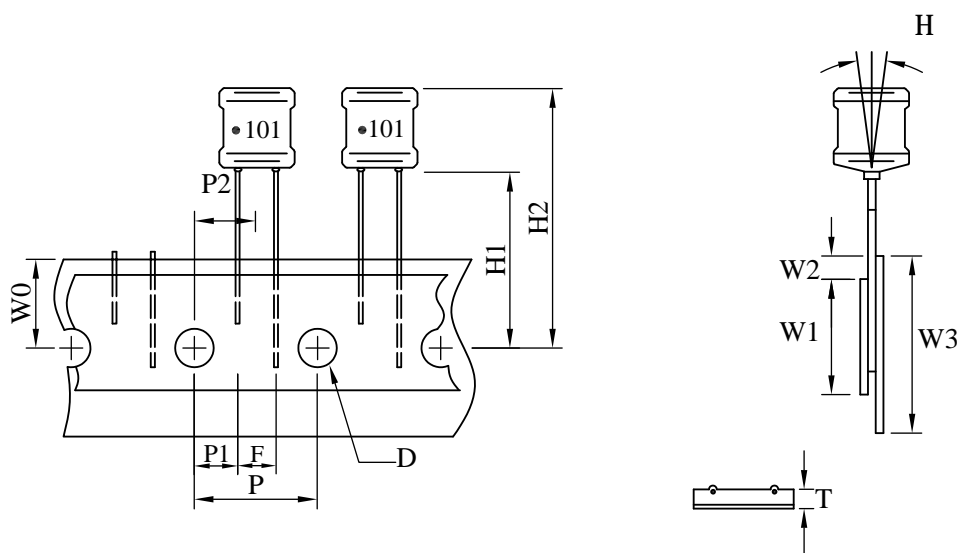
- 1). Electrical specifications at 25°C
- 2). Isat base on Δ L / LOA=10% typ.(Approximately transient current)
- 3). Irms base on Temp. rise 40°C typ.

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V . Packaging information :



※ 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	32.50	max.	1.280	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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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.

AR-001C

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VIII . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20080714-A	Change the D&E Packaging information	Leo Liang	Nick Chen	Nick Chen
20160712-B	Modify the Operating temp. from -25~+85°C to -40~105°C			
20121214-C	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 4. Add the G packaging			
20161220-D	1. Modify the Packaging information 2. Modify the Electrical characteristics 3. Add Change history and Dwging number expression	Leo Liang	Nick Chen	Nick Chen