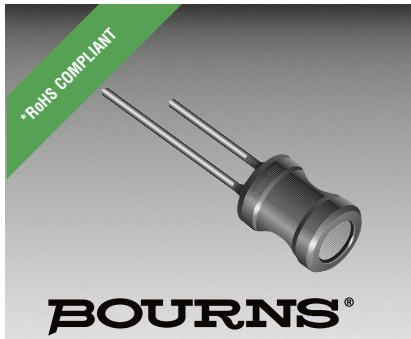




**THE DATASHEET OF  
RLB1314-6R8ML**





## Features

- Four types available
- High rated current for high current circuits
- Available in E12 series
- RoHS compliant\*

## Applications

- Power supplies
- DC/DC converters
- General use

# RLB Series Radial Lead Inductors

### General Specifications

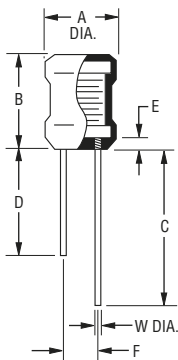
Operating Temperature.....	-40 °C to +125 °C
Storage Temperature.....	-40 °C to +125 °C
Moisture Sensitivity Level.....	1
ESD Classification (HBM).....	N/A

### Materials

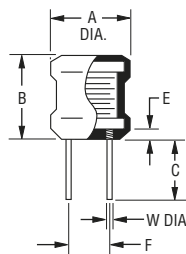
Core Material.....	Ferrite DR core
Wire.....	Enameled copper wire
Terminal.....	Cu/Sn
Tube.....	Shrinkable tube 125 °C, 600 V

### Product Dimensions

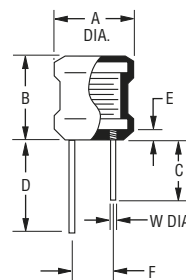
RLB0608, RLB0812, RLB1014,  
RLB0712, RLB0914 Series



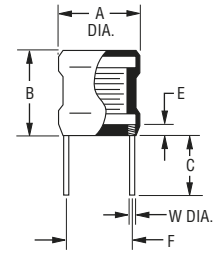
RLB0912 Series



RLB1314-680K  
through  
RLB1314-153K



RLB1314-3R3M  
through  
RLB1314-470K



Series	A	B	C	D	E	F	W (DIA.)	Inductance Range
RLB0608	$\frac{5.0 \pm 0.5}{(.197 \pm .020)}$	$\frac{6.5 +1.0/ 0.5}{(.256 +.039/.020)}$	$\frac{28.0 \pm 5.0}{(1.102 \pm .197)}$	$\frac{20.0 \pm 5.0}{(.787 \pm .197)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{2.0 \pm 0.5}{(.079 \pm .020)}$	$\frac{0.50}{(.020)}$	1.0 $\mu$ H - 2200 $\mu$ H
RLB0812	$\frac{6.7 \pm 0.5}{(.264 \pm .020)}$	$\frac{10.0 \pm 1.0}{(.394 \pm .039)}$	$\frac{25.0 \pm 5.0}{(.984 \pm .197)}$	$\frac{18.0 \pm 5.0}{(.709 \pm .197)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{3.0 \pm 0.5}{(.118 \pm .020)}$	$\frac{0.65}{(.026)}$	47 $\mu$ H - 47 mH
RLB1014	$\frac{8.7 \pm 0.5}{(.343 \pm .020)}$	$\frac{12.0 \pm 1.0}{(.472 \pm .039)}$	$\frac{25.0 \pm 5.0}{(.984 \pm .197)}$	$\frac{18.0 \pm 5.0}{(.709 \pm .197)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{5.0 \pm 0.8}{(.197 \pm .031)}$	$\frac{0.65}{(.026)}$	100 $\mu$ H - 82 mH
RLB0712	$\frac{6.7 \pm 0.5}{(.264 \pm .020)}$	$\frac{10.0 \pm 1.0}{(.394 \pm .039)}$	$\frac{25.0 \pm 5.0}{(.984 \pm .197)}$	$\frac{18.0 \pm 5.0}{(.709 \pm .197)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{3.0 \pm 0.5}{(.118 \pm .020)}$	$\frac{0.65}{(.026)}$	10 $\mu$ H - 560 $\mu$ H
RLB0912	$\frac{8.7 \pm 0.5}{(.343 \pm .020)}$	$\frac{10.0 \pm 1.0}{(.394 \pm .039)}$	$\frac{5.0 \pm 1.0}{(.197 \pm .039)}$	-	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{5.0 \pm 0.8}{(.197 \pm .031)}$	$\frac{0.65}{(.026)}$	1.5 $\mu$ H - 1000 $\mu$ H
RLB0914	$\frac{8.7 \pm 0.5}{(.343 \pm .020)}$	$\frac{12.0 \pm 1.0}{(.472 \pm .039)}$	$\frac{25.0 \pm 5.0}{(.984 \pm .197)}$	$\frac{18.0 \pm 5.0}{(.709 \pm .197)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{5.0 \pm 0.8}{(.197 \pm .031)}$	$\frac{0.65}{(.026)}$	3.3 $\mu$ H - 1000 $\mu$ H
RLB1314	$\frac{11.7 \pm 0.8}{(.461 \pm .031)}$	$\frac{12.0 \pm 1.0}{(.472 \pm .039)}$	$\frac{15.0 \pm 3.0}{(.591 \pm .118)}$	-	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .039)}$	Per Specs. (Page 7)	3.3 $\mu$ H - 47 $\mu$ H
	$\frac{11.7 \pm 0.8}{(.461 \pm .031)}$	$\frac{12.0 \pm 1.0}{(.472 \pm .039)}$	$\frac{15.0 \pm 3.0}{(.591 \pm .118)}$	$\frac{18.0 \pm 3.0}{(.709 \pm .128)}$	$\frac{2.5 + 0}{(.098 + 0)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .031)}$	$\frac{0.80}{(.031)}$	68 $\mu$ H - 15 mH

DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



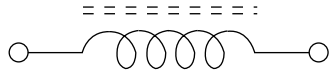
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors

**BOURNS®**

## Electrical Schematic



## Typical Part Marking



Inductance Code:  
 - First two digits are significant  
 - Third digit represents the number of zeroes to follow

• Indicates start of winding

## Electrical Characteristics - RLB0608 Series

NOTE: Temperature rise..... 20 °C max. at rated current

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (MHz) L, Q	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
RLB0608-1R0ML	1.0 ± 20 %	60	7.96	105.0	0.10	1030
RLB0608-1R2ML	1.2 ± 20 %	60	7.96	90.0	0.15	980
RLB0608-1R5ML	1.5 ± 20 %	60	7.96	75.0	0.20	920
RLB0608-1R8ML	1.8 ± 20 %	60	7.96	70.0	0.22	880
RLB0608-2R2ML	2.2 ± 20 %	60	7.96	65.0	0.24	830
RLB0608-2R7ML	2.7 ± 20 %	60	7.96	60.0	0.27	790
RLB0608-3R3ML	3.3 ± 20 %	60	7.96	50.0	0.30	750
RLB0608-3R9ML	3.9 ± 20 %	60	7.96	45.0	0.30	720
RLB0608-4R7ML	4.7 ± 20 %	60	7.96	40.0	0.35	670
RLB0608-5R6KL	5.6 ± 10 %	60	7.96	35.0	0.35	640
RLB0608-6R8KL	6.8 ± 10 %	60	7.96	30.0	0.40	620
RLB0608-8R2KL	8.2 ± 10 %	60	7.96	25.0	0.40	590
RLB0608-100KL	10.0 ± 10 %	60	2.52	20.0	0.45	550
RLB0608-120KL	12.0 ± 10 %	60	2.52	15.0	0.50	530
RLB0608-150KL	15.0 ± 10 %	60	2.52	13.0	0.55	500
RLB0608-180KL	18.0 ± 10 %	60	2.52	11.0	0.60	480
RLB0608-220KL	22.0 ± 10 %	60	2.52	10.0	0.65	460
RLB0608-270KL	27.0 ± 10 %	50	2.52	9.0	0.75	430
RLB0608-330KL	33.0 ± 10 %	50	2.52	8.0	0.85	410
RLB0608-390KL	39.0 ± 10 %	50	2.52	7.5	0.90	390
RLB0608-470KL	47.0 ± 10 %	50	2.52	7.0	1.00	370
RLB0608-560KL	56.0 ± 10 %	50	2.52	6.5	1.20	350
RLB0608-680KL	68.0 ± 10 %	50	2.52	6.0	1.30	340
RLB0608-820KL	82.0 ± 10 %	50	2.52	5.5	1.50	320
RLB0608-101KL	100.0 ± 10 %	50	0.796	5.0	1.70	305
RLB0608-121KL	120.0 ± 10 %	50	0.796	4.8	1.90	290
RLB0608-151KL	150.0 ± 10 %	50	0.796	4.4	2.10	275
RLB0608-181KL	180.0 ± 10 %	50	0.796	4.2	2.30	235
RLB0608-221KL	220.0 ± 10 %	45	0.796	3.8	2.50	200
RLB0608-271KL	270.0 ± 10 %	45	0.796	3.6	2.75	180
RLB0608-331KL	330.0 ± 10 %	45	0.796	3.3	4.68	165
RLB0608-391KL	390.0 ± 10 %	45	0.796	3.0	6.00	150
RLB0608-471KL	470.0 ± 10 %	55	0.796	2.8	6.50	140
RLB0608-561KL	560.0 ± 10 %	55	0.796	2.4	8.50	135
RLB0608-681KL	680.0 ± 10 %	55	0.796	2.2	9.00	125
RLB0608-821KL	820.0 ± 10 %	55	0.796	2.0	9.60	120
RLB0608-102KL	1000.0 ± 10 %	55	0.252	1.8	11.50	100
RLB0608-152KL	1500.0 ± 10 %	50	0.252	1.4	15.00	100
RLB0608-222KL	2200.0 ± 10 %	50	0.252	1.0	20.00	85

Packaging: 800 pieces per bag.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors



## Electrical Characteristics - RLB0812 Series

NOTE: Temperature rise..... 20 °C max. at rated current

Bourns Part Number	Inductance ( $\mu$ H)	Q Ref.	Test Freq. (MHz) L, Q	SRF (MHz) Min.	RDC ( $\Omega$ ) Max.	IDC (mA) Max.
RLB0812-470KL	47 $\pm$ 10 %	30	2.52	6.00	0.40	450
RLB0812-560KL	56 $\pm$ 10 %	30	2.52	5.50	0.45	400
RLB0812-680KL	68 $\pm$ 10 %	30	2.52	5.00	0.50	360
RLB0812-820KL	82 $\pm$ 10 %	30	2.52	4.50	0.50	340
RLB0812-101KL	100 $\pm$ 10 %	45	0.796	4.20	0.60	320
RLB0812-121KL	120 $\pm$ 10 %	45	0.796	3.60	0.70	300
RLB0812-151KL	150 $\pm$ 10 %	45	0.796	3.40	0.90	280
RLB0812-181KL	180 $\pm$ 10 %	45	0.796	3.20	1.00	260
RLB0812-221KL	220 $\pm$ 10 %	45	0.796	3.00	1.20	240
RLB0812-271KL	270 $\pm$ 10 %	45	0.796	2.80	1.40	220
RLB0812-331KL	330 $\pm$ 10 %	45	0.796	2.50	1.60	200
RLB0812-391KL	390 $\pm$ 10 %	45	0.796	2.30	1.80	180
RLB0812-471KL	470 $\pm$ 10 %	45	0.796	2.20	2.00	160
RLB0812-561KL	560 $\pm$ 10 %	45	0.796	2.00	2.50	150
RLB0812-681KL	680 $\pm$ 10 %	45	0.796	1.70	2.90	140
RLB0812-821KL	820 $\pm$ 10 %	45	0.796	1.50	3.10	130
RLB0812-102KL	1000 $\pm$ 10 %	45	0.252	1.40	3.90	120
RLB0812-122KL	1200 $\pm$ 10 %	60	0.252	1.10	4.40	110
RLB0812-152KL	1500 $\pm$ 10 %	60	0.252	0.90	6.00	100
RLB0812-182KL	1800 $\pm$ 10 %	60	0.252	0.80	7.00	90
RLB0812-222KL	2200 $\pm$ 10 %	60	0.252	0.75	8.00	80
RLB0812-272KL	2700 $\pm$ 10 %	60	0.252	0.70	9.00	70
RLB0812-332KL	3300 $\pm$ 10 %	60	0.252	0.60	12.00	60
RLB0812-392KL	3900 $\pm$ 10 %	60	0.252	0.55	14.00	55
RLB0812-472KL	4700 $\pm$ 10 %	60	0.252	0.50	16.00	50
RLB0812-562KL	5600 $\pm$ 10 %	60	0.252	0.48	18.00	45
RLB0812-682KL	6800 $\pm$ 10 %	60	0.252	0.44	24.00	40
RLB0812-822KL	8200 $\pm$ 10 %	60	0.252	0.40	30.00	36
RLB0812-103KL	10000 $\pm$ 10 %	60	0.0796	0.36	39.00	34
RLB0812-123KL	12000 $\pm$ 10 %	60	0.0796	0.32	46.00	32
RLB0812-153KL	15000 $\pm$ 10 %	60	0.0796	0.30	54.00	30
RLB0812-183KL	18000 $\pm$ 10 %	60	0.0796	0.28	76.00	27
RLB0812-223KL	22000 $\pm$ 10 %	60	0.0796	0.24	92.00	25
RLB0812-273KL	27000 $\pm$ 10 %	60	0.0796	0.20	102.00	22
RLB0812-333KL	33000 $\pm$ 10 %	60	0.0796	0.16	140.00	20
RLB0812-393KL	39000 $\pm$ 10 %	60	0.0796	0.13	150.00	18
RLB0812-473KL	47000 $\pm$ 10 %	60	0.0796	0.10	162.00	16

Packaging: 400 pieces per bag.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors

**BOURNS®**

## Electrical Characteristics - RLB1014 Series

NOTE: Temperature rise..... 40 °C typ. at rated I<sub>rms</sub>  
 Inductance drop..... 10 % typ at I<sub>sat</sub>

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (MHz) L, Q	SRF (MHz) Min.	RDC (Ω) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
RLB1014-101KL	100 ± 10 %	45	796.0	3.20	0.85	0.78	2
RLB1014-121KL	120 ± 10 %	45	796.0	3.00	0.95	0.74	1.93
RLB1014-151KL	150 ± 10 %	45	796.0	2.80	1.05	0.68	1.8
RLB1014-181KL	180 ± 10 %	45	796.0	2.50	1.15	0.65	1.55
RLB1014-221KL	220 ± 10 %	40	796.0	2.10	1.30	0.62	1.45
RLB1014-271KL	270 ± 10 %	40	796.0	2.00	1.50	0.6	1.33
RLB1014-331KL	330 ± 10 %	40	796.0	1.95	1.70	0.55	1.18
RLB1014-391KL	390 ± 10 %	40	796.0	1.85	1.85	0.5	1.1
RLB1014-471KL	470 ± 10 %	35	796.0	1.55	2.30	0.45	1
RLB1014-561KL	560 ± 10 %	35	796.0	1.30	2.55	0.43	0.95
RLB1014-681KL	680 ± 10 %	35	796.0	1.15	2.85	0.42	0.85
RLB1014-821KL	820 ± 10 %	35	796.0	1.00	3.10	0.4	0.8
RLB1014-102KL	1000 ± 10 %	50	252.0	0.90	4.10	0.36	0.6
RLB1014-122KL	1200 ± 10 %	50	252.0	0.80	4.70	0.34	0.36
RLB1014-152KL	1500 ± 10 %	50	252.0	0.70	5.80	0.3	0.32
RLB1014-182KL	1800 ± 10 %	50	252.0	0.60	7.40	0.28	0.3
RLB1014-222KL	2200 ± 10 %	50	252.0	0.55	8.40	0.26	0.27
RLB1014-272KL	2700 ± 10 %	50	252.0	0.50	9.60	0.24	0.25
RLB1014-332KL	3300 ± 10 %	50	252.0	0.45	10.50	0.22	0.23
RLB1014-392KL	3900 ± 10 %	50	252.0	0.40	12.00	0.21	0.21
RLB1014-472KL	4700 ± 10 %	45	252.0	0.38	14.00	0.19	0.195
RLB1014-562KL	5600 ± 10 %	45	252.0	0.36	16.00	0.17	0.18
RLB1014-682KL	6800 ± 10 %	40	252.0	0.34	18.00	0.16	0.165
RLB1014-822KL	8200 ± 10 %	40	252.0	0.32	24.50	0.15	0.155
RLB1014-103KL	10000 ± 10 %	50	79.6	0.30	32.00	0.135	0.145
RLB1014-123KL	12000 ± 10 %	50	79.6	0.28	36.00	0.125	0.13
RLB1014-153KL	15000 ± 10 %	50	79.6	0.26	48.00	0.1	0.11
RLB1014-183KL	18000 ± 10 %	45	79.6	0.24	52.00	0.096	0.1
RLB1014-223KL	22000 ± 10 %	45	79.6	0.22	58.00	0.092	0.095
RLB1014-273KL	27000 ± 10 %	45	79.6	0.20	62.00	0.082	0.085
RLB1014-333KL	33000 ± 10 %	45	79.6	0.18	90.00	0.074	0.075
RLB1014-393KL	39000 ± 10 %	40	79.6	0.17	100.00	0.07	0.072
RLB1014-473KL	47000 ± 10 %	35	79.6	0.16	150.00	0.06	0.065
RLB1014-563KL	56000 ± 10 %	35	79.6	0.15	200.00	0.052	0.06
RLB1014-683KL	68000 ± 10 %	35	79.6	0.14	220.00	0.046	0.056
RLB1014-823KL	82000 ± 10 %	30	79.6	0.12	240.00	0.044	0.052
RLB1014-104KL	100000 ± 10 %	30	L: 1 kHz, Q: 79.6 kHz	0.10	300.00	0.04	0.04

Packaging: 150 pieces per bag.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors



## Electrical Characteristics - RLB0712 Series

NOTE: Temperature rise..... 20 °C max. at rated current

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (Hz)		SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
			L	Q			
RLB0712-100KL	10 ± 10 %	20	1 K	2.520 M	16.0	0.07	1100
RLB0712-120KL	12 ± 10 %	20	1 K	2.520 M	12.0	0.08	1000
RLB0712-150KL	15 ± 10 %	20	1 K	2.520 M	10.0	0.09	900
RLB0712-180KL	18 ± 10 %	20	1 K	2.520 M	10.0	0.10	750
RLB0712-220KL	22 ± 10 %	20	1 K	2.520 M	9.0	0.12	700
RLB0712-270KL	27 ± 10 %	20	1 K	2.520 M	8.0	0.13	650
RLB0712-330KL	33 ± 10 %	20	1 K	2.520 M	7.0	0.15	600
RLB0712-390KL	39 ± 10 %	20	1 K	2.520 M	6.0	0.16	550
RLB0712-470KL	47 ± 10 %	20	1 K	2.520 M	6.0	0.18	450
RLB0712-560KL	56 ± 10 %	20	1 K	2.520 M	5.0	0.21	400
RLB0712-680KL	68 ± 10 %	20	1 K	2.520 M	5.0	0.24	360
RLB0712-820KL	82 ± 10 %	20	1 K	2.520 M	5.0	0.35	340
RLB0712-101KL	100 ± 10 %	20	1 K	0.796 M	4.0	0.40	320
RLB0712-121KL	120 ± 10 %	20	1 K	0.796 M	4.0	0.45	300
RLB0712-151KL	150 ± 10 %	20	1 K	0.796 M	3.5	0.50	280
RLB0712-181KL	180 ± 10 %	20	1 K	0.796 M	3.0	0.75	260
RLB0712-221KL	220 ± 10 %	20	1 K	0.796 M	3.0	0.90	240
RLB0712-271KL	270 ± 10 %	20	1 K	0.796 M	2.5	1.00	220
RLB0712-331KL	330 ± 10 %	20	1 K	0.796 M	2.5	1.10	200
RLB0712-391KL	390 ± 10 %	20	1 K	0.796 M	2.0	1.20	180
RLB0712-471KL	470 ± 10 %	20	1 K	0.796 M	2.0	1.50	160

Packaging: 400 pieces per bag.

## Electrical Characteristics - RLB0912 Series

NOTE: Temperature rise..... 40 °C typ. at rated Irms  
Inductance drop..... 10 % typ at Isat

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (Hz)		SRF (MHz) Min.	RDC (Ω) Max.	Irms (A) Typ.	Isat (A) Typ.
			L	Q				
RLB0912-1R0ML	1.0 ±20 %	30	1 K	7.960 M	88.0	0.010	6	8.1
RLB0912-1R5ML	1.5 ±20 %	30	1 K	7.960 M	78.0	0.008	6	8
RLB0912-2R2ML	2.2 ±20 %	30	1 K	7.960 M	63.0	0.010	5.3	7.5
RLB0912-3R3ML	3.3 ±20 %	30	1 K	7.960 M	50.0	0.018	4.5	6.5
RLB0912-4R7ML	4.7 ±20 %	30	1 K	7.960 M	41.0	0.022	4	5
RLB0912-6R8ML	6.8 ±20 %	30	1 K	7.960 M	33.0	0.028	3.7	4.3
RLB0912-100KL	10.0 ±10 %	60	1 K	2.520 M	27.0	0.043	2.5	3.6
RLB0912-150KL	15.0 ±10 %	50	1 K	2.520 M	21.0	0.056	2.3	3
RLB0912-220KL	22.0 ±10 %	50	1 K	2.520 M	17.0	0.086	2.1	2.5
RLB0912-330KL	33.0 ±10 %	45	1 K	2.520 M	13.0	0.140	1.7	2
RLB0912-470KL	47.0 ±10 %	40	1 K	2.520 M	11.0	0.170	1.5	1.7
RLB0912-680KL	68.0 ±10 %	35	1 K	2.520 M	9.0	0.280	1.35	1.5
RLB0912-101KL	100.0 ±10 %	55	1 K	0.796 M	7.2	0.330	1	1.2
RLB0912-151KL	150.0 ±10 %	40	1 K	0.796 M	5.7	0.560	0.92	1
RLB0912-221KL	220.0 ±10 %	30	1 K	0.796 M	4.5	0.720	0.8	0.8
RLB0912-331KL	330.0 ±10 %	25	1 K	0.796 M	3.6	1.100	0.7	0.62
RLB0912-471KL	470.0 ±10 %	25	1 K	0.796 M	2.9	1.700	0.6	0.52
RLB0912-681KL	680.0 ±10 %	25	1 K	0.796 M	2.3	2.300	0.5	0.42
RLB0912-102KL	1000.0 ±10 %	55	1 K	0.252 M	1.9	4.300	0.4	0.35

Packaging: 200 pieces per bag.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors

**BOURNS®**

## Electrical Characteristics - RLB0914 Series

NOTE: Temperature rise..... 40 °C typ. at rated I<sub>rms</sub>  
 Inductance drop..... 10 % typ at I<sub>sat</sub>

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (MHz) L, Q	SRF (MHz) Min.	RDC (Ω) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
RLB0914-3R3ML	3.3 ± 20 %	20	7.960	70.0	0.027	3.6	11.3
RLB0914-4R7ML	4.7 ± 20 %	20	7.960	50.0	0.033	3.2	10
RLB0914-6R8ML	6.8 ± 20 %	20	7.960	30.0	0.039	3	8.5
RLB0914-100KL	10.0 ± 10 %	50	2.520	20.0	0.048	2.7	6.7
RLB0914-120KL	12.0 ± 10 %	50	2.520	15.0	0.055	2.5	6.2
RLB0914-150KL	15.0 ± 10 %	50	2.520	10.0	0.060	2.4	5.3
RLB0914-180KL	18.0 ± 10 %	40	2.520	9.5	0.065	2.3	5
RLB0914-220KL	22.0 ± 10 %	40	2.520	9.0	0.090	1.9	4.5
RLB0914-270KL	27.0 ± 10 %	40	2.520	8.5	0.110	1.8	4
RLB0914-330KL	33.0 ± 10 %	40	2.520	8.0	0.120	1.7	3.8
RLB0914-390KL	39.0 ± 10 %	30	2.520	7.0	0.130	1.6	3.4
RLB0914-470KL	47.0 ± 10 %	30	2.520	6.0	0.140	1.56	3.2
RLB0914-560KL	56.0 ± 10 %	30	2.520	5.0	0.200	1.5	3
RLB0914-680KL	68.0 ± 10 %	30	2.520	4.5	0.210	1.33	2.7
RLB0914-820KL	82.0 ± 10 %	30	2.520	4.0	0.230	1.28	2.5
RLB0914-101KL	100.0 ± 10 %	30	0.796	3.5	0.280	1.1	2.1
RLB0914-121KL	120.0 ± 10 %	30	0.796	3.0	0.320	1.05	1.9
RLB0914-151KL	150.0 ± 10 %	30	0.796	2.8	0.370	1	1.8
RLB0914-181KL	180.0 ± 10 %	30	0.796	2.6	0.540	0.87	1.63
RLB0914-221KL	220.0 ± 10 %	20	0.796	2.4	0.600	0.8	1.5
RLB0914-271KL	270.0 ± 10 %	20	0.796	2.2	0.680	0.77	1.4
RLB0914-331KL	330.0 ± 10 %	20	0.796	2.0	0.760	0.74	1.25
RLB0914-391KL	390.0 ± 10 %	20	0.796	1.9	0.850	0.7	1.15
RLB0914-471KL	470.0 ± 10 %	20	0.796	1.8	1.300	0.56	1
RLB0914-561KL	560.0 ± 10 %	20	0.796	1.7	1.400	0.52	0.95
RLB0914-681KL	680.0 ± 10 %	20	0.796	1.6	1.600	0.49	0.9
RLB0914-821KL	820.0 ± 10 %	20	0.796	1.5	1.800	0.46	0.83
RLB0914-102KL	1000.0 ± 10 %	40	0.252	1.3	2.100	0.42	0.65

Packaging: 200 pieces per bag

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# RLB Series Radial Lead Inductors



## Electrical Characteristics - RLB1314 Series

NOTE: Temperature rise..... 20 °C max. at rated current

Bourns Part Number	Inductance (μH)	Q Ref.	Test Freq. (Hz)		SRF (MHz) Min.	RDC (Ω) Max.	IDC (A) Max.	Dimensions	
			L	Q				W Dia.	F
RLB1314-3R3ML	3.3 ± 20 %	90	1 K	7.96 M	59.00	0.008	5.600	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-4R7ML	4.7 ± 20 %	100	1 K	7.96 M	45.00	0.009	4.700	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-6R8ML	6.8 ± 20 %	80	1 K	7.96 M	34.00	0.012	3.900	$\frac{0.7 \pm 0.05}{(.028 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-100ML	10.0 ± 20 %	140	1 K	2.52 M	26.00	0.015	3.200	$\frac{0.7 \pm 0.05}{(.028 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-150ML	15.0 ± 20 %	120	1 K	2.52 M	19.00	0.019	2.600	$\frac{0.7 \pm 0.05}{(.028 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314- 220KL	22.0 ± 10 %	110	1 K	2.52 M	14.00	0.026	2.200	$\frac{0.7 \pm 0.05}{(.028 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-330KL	33.0 ± 10 %	100	1 K	2.52 M	10.00	0.045	1.800	$\frac{0.6 \pm 0.05}{(.024 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-470KL	47.0 ± 10 %	90	1 K	2.52 M	8.30	0.056	1.500	$\frac{0.6 \pm 0.05}{(.024 \pm .002)}$	$\frac{9.0 \pm 1.0}{(.354 \pm .04)}$
RLB1314-680KL	68.0 ± 10 %	80	1 K	2.52 M	6.70	0.092	1.200	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-101KL	100.0 ± 10 %	70	1 K	796 K	5.40	0.120	1.000	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-151KL	150.0 ± 10 %	70	1 K	796 K	4.30	0.200	0.820	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-221KL	220.0 ± 10 %	40	1 K	796 K	3.40	0.250	0.680	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-331KL	330.0 ± 10 %	40	1 K	796 K	2.70	0.420	0.550	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-471KL	470.0 ± 10 %	30	1 K	796 K	2.30	0.510	0.460	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-681KL	680.0 ± 10 %	30	1 K	796 K	1.90	0.790	0.380	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-102KL	1000.0 ± 10 %	40	1 K	252 K	1.60	1.300	0.310	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-152KL	1500.0 ± 10 %	30	1 K	252 K	1.30	1.700	0.250	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-222KL	2200.0 ± 10 %	60	1 K	252 K	1.10	2.900	0.210	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-332KL	3300.0 ± 10 %	50	1 K	252 K	0.90	3.700	0.170	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-472KL	4700.0 ± 10 %	50	1 K	252 K	0.76	5.600	0.140	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-682KL	6800.0 ± 10 %	60	1 K	252 K	0.65	9.400	0.120	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-103KL	10000.0 ± 10 %	80	1 K	79.6 K	0.53	12.000	0.100	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$
RLB1314-153KL	15000.0 ± 10 %	70	1 K	79.6 K	0.41	15.000	0.082	$\frac{0.8 \pm 0.05}{(.032 \pm .002)}$	$\frac{7.0 \pm 0.8}{(.276 \pm .032)}$

DIMENSIONS:  $\frac{MM}{(INCHES)}$

Packaging: RLB1314 (3R3M to 470K) = 150 pieces per bag; RLB1314 (680K to 153K) = 130 pieces per bag.

REV. 11/17

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, “Bourns”).

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information and verify that such information is current and complete before placing orders for Bourns® products.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain types of applications are based on Bourns’ knowledge of typical requirements in generic applications. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to (i) the combination of the Bourns® product with other components in the user’s application, or (ii) the environment of the user application itself. The characteristics and parameters of a Bourns® product also can and do vary in different applications and actual performance may vary over time. Users should always verify the actual performance of the Bourns® product in their specific devices and applications, and make their own independent judgments regarding the amount of additional test margin to design into their device or application to compensate for differences between laboratory and real world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., ISO/TS 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet the requirements of such industry standard or particular qualification. Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their devices or applications.

Bourns® products are not recommended, authorized or intended for use in nuclear, lifesaving, life-critical or life-sustaining applications, nor in any other applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any Bourns® products in such unauthorized applications might not be safe and thus is at the user’s sole risk. Life-critical applications include devices identified by the U.S. Food and Drug Administration as Class III devices and generally equivalent classifications outside of the United States.

Bourns expressly identifies those Bourns® standard products that are suitable for use in automotive applications on such products’ data sheets in the section entitled “Applications.” Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard products in an automotive application might not be safe and thus is not recommended, authorized or intended and is at the user’s sole risk. If Bourns expressly identifies a sub-category of automotive application in the data sheet for its standard products (such as infotainment or lighting), such identification means that Bourns has reviewed its standard product and has determined that if such Bourns® standard product is considered for potential use in automotive applications, it should only be used in such sub-category of automotive applications. Any reference to Bourns® standard product in the data sheet as compliant with the AEC-Q standard or “automotive grade” does not by itself mean that Bourns has approved such product for use in an automotive application.

Bourns® standard products are not tested to comply with United States Federal Aviation Administration standards generally or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aircraft or space applications. Bourns expressly identifies Bourns® standard products that are suitable for use in aircraft or space applications on such products’ data sheets in the section entitled “Applications.” Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard product in an aircraft or space application might not be safe and thus is not recommended, authorized or intended and is at the user’s sole risk.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the above provisions applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Users shall not sell, transfer, export or re-export any Bourns® products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology in any facility which engages in activities relating to such devices. The foregoing restrictions apply to all uses and applications that violate national or international prohibitions, including embargos or international regulations. Further, Bourns® products and Bourns technology and technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes. Bourns® products may not, without prior authorization from Bourns and/or the U.S. Government, be resold, transferred, or re-exported to any party not eligible to receive U.S. commodities, software, and technical data.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability for special, punitive, consequential, incidental or indirect damages or lost revenues or lost profits, and (ii) any and all implied warranties, including implied warranties of fitness for particular purpose, non-infringement and merchantability.

*For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:*

*Web Page:* <http://www.bourns.com/legal/disclaimers-terms-and-policies>

*PDF:* <http://www.bourns.com/docs/Legal/disclaimer.pdf>

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View RLB1314-6R8ML on WIN SOURCE](#)

 [Bourns Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management