

**SRP Series  
RLB9012 Series  
2xxx Series**

# APPLICATION NOTE

Passive Solutions

Bourns® Power Inductors for Industrial Applications



## Applications

- Choke in power supplies
- Voltage absorption in motor circuits
- Switch mode power supplies
- Delay circuits
- Filter circuits

## Features

- High power inductors
- Current rating up to 50 A
- 0.1  $\mu$ H to 47,000  $\mu$ H
- DCR below 1.0 m $\Omega$
- Both surface mount and through-hole offered
- RoHS compliant

## Benefits

- Lower power loss due to low DCR
- Common base size allows higher current rating in the same area by increasing height
- Wide range of inductance within models – fewer models to specify
- Surface mount or through-hole designs may be accommodated

## Full Range of Products

Bourns offers a wide range of power inductors that can be used in many types of applications within the industrial market.

In many cases industrial applications require components that can handle higher power. Bourns has recently introduced the Model SRP series which includes 14 models from 7 mm to 13 mm in size, which can handle currents of up to 50 A. Due to improvements in materials technology and ongoing development, DC Resistance (DCR) has been reduced to below 1.0 m $\Omega$  in some cases. We are highlighting 11 of the SRP models below.

When through-hole products are considered, Bourns offers both toroidal and radial-lead inductors. The 2100, 2200 and 2300 series are large toroids that may be ordered with leads prepared for either horizontal or vertical mounting. The RLB9012 series of radial-lead inductors has an inductance range from 1.0 through 47,000  $\mu$ H.

Model	Mounting (SM or TH)	Size (mm)	Inductance Range	Current Range	RoHS compliant
SRP1040	SM	11.8 x 4.2	0.36 – 8.2 $\mu$ H	5 – 28 A	Yes
SRP1045	SM	11.0 x 4.5	0.36 – 3.2 $\mu$ H	8 – 23 A	Yes
SRP1050	SM	10.2 x 5.0	0.1 – 0.2 $\mu$ H	30 – 40 A	Yes
SRP1055	SM	11.0 x 5.5	0.36 – 8.8 $\mu$ H	5.6 – 28 A	Yes
SRP1204	SM	12.5 x 4.0	0.5 – 1.8 $\mu$ H	10 – 13 A	Yes
SRP1205	SM	12.5 x 5.6	0.3 – 7.2 $\mu$ H	8.3 – 18 A	Yes
SRP1206	SM	12.5 x 5.7	0.47 – 2.8 $\mu$ H	15 – 30 A	Yes
SRP1235	SM	13.9 x 3.7	0.1 – 6.8 $\mu$ H	9 – 43 A	Yes
SRP1250	SM	13.9 x 5.9	0.36 – 10 $\mu$ H	10 – 41 A	Yes
SRP1255	SM	13.9 x 5.4	0.68 – 4.7 $\mu$ H	12.8 – 29.7 A	Yes
SRP1280	SM	13.5 x 8.0	0.15 – 0.44 $\mu$ H	28 – 50 A	Yes
SRP7030	SM	7.8 x 7.0	0.10 – 10 $\mu$ H	3 – 32.5	Yes
SRP7050	SM	7.2 x 5.0	0.10 – 0.20 $\mu$ H	19 – 30	Yes
SRP8040	SM	6.1 x 8.2	0.10 – 0.22 $\mu$ H	25 – 35	Yes
2000	TH	17.2 x 10.4	10 – 1000 $\mu$ H	1.3 – 10.8 A	Yes
2100	TH	21.8 x 11.4	10 – 1000 $\mu$ H	1.8 – 12.5 A	Yes
2200	TH	24.1 x 14	10 – 1000 $\mu$ H	2.4 – 20 A	Yes
2300	TH	32.5 x 16.5	10 – 1000 $\mu$ H	2.4 – 20 A	Yes
RLB9012	TH	9.0 x 12.2	1.0 – 47,000 $\mu$ H	0.08 – 10 A	Yes

For more information on the Type SRP, RLB9012 Series and 2xxx Series from Bourns, please visit [www.bourns.com](http://www.bourns.com)

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