

Features

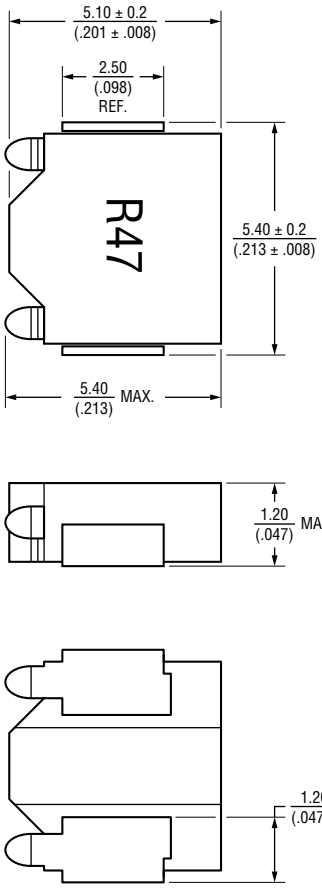
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Flat wire
- RoHS compliant* and halogen free**

SRP0512 Series - Shielded Power Inductors

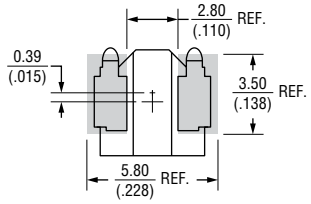
Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Typ.	Q Test Freq, (MHz)	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. (%)							
SRP0512-R47K	0.47	10	18	25.2	68	13.0	14.9	8.3	14.0
SRP0512-R68K	0.68	10	17	25.2	58	15.2	18.0	7.6	11.0
SRP0512-1R0K	1.00	10	43	7.96	45	20.5	23.0	6.5	10.0
SRP0512-1R5K	1.50	10	26	7.96	32	24.5	29.0	6.2	7.0
SRP0512-2R2K	2.20	10	39	7.96	28	43.3	51.5	4.2	6.8
SRP0512-3R3K	3.30	10	37	7.96	24	70.0	81.5	3.2	5.6
SRP0512-4R7K	4.70	10	32	7.96	19	84.5	100.0	3.1	4.9
SRP0512-6R8K	6.80	10	20	7.96	17	148.0	175.0	2.2	3.5
SRP0512-100K	10.0	10	26	2.52	12	170.0	200.0	2.1	2.5

Product Dimensions

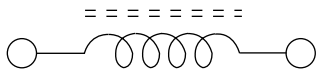


Recommended Layout



DIMENSIONS: MM / (INCHES)

Electrical Schematic



Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

Operating Temperature
.....-40 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component)
.....-40 °C to +125 °C
Rated Current
..... Inductance drops 30 % at Isat
Temperature Rise ... 40 °C at rated Irms[1]
Rated Voltage .....50 V
Moisture Sensitivity Level 1
ESD Classification (HBM).....N/A

Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

Core.....Metal alloy powder
Wire .....Enameled copper
Terminal Finish .....Sn
Packaging..... 4000 pcs. per 13-inch reel

Please consult *Bourns® Model SRP-A Series Visual Inspection Guide* for detailed construction, processing and testing information.

How to Order

SRP0512 - 4R7K

Model
Value Code (see table)

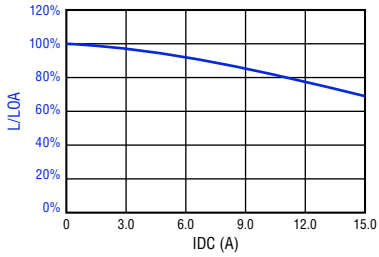
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

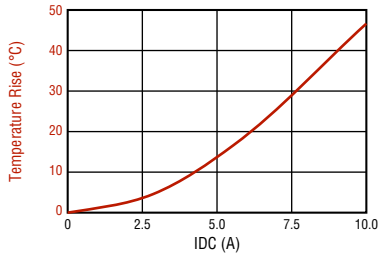
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L vs. I Charts

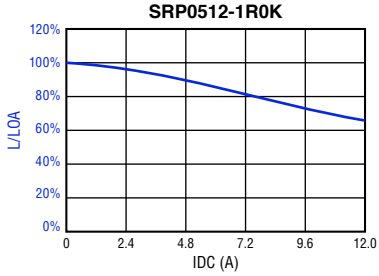
SRP0512-R47K



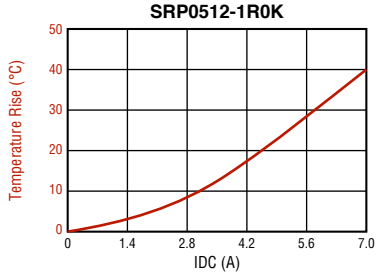
SRP0512-R47K



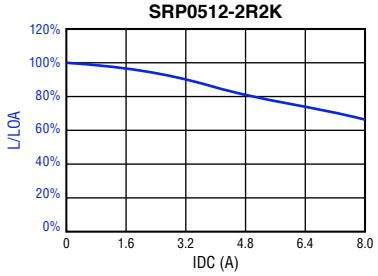
SRP0512-1R0K



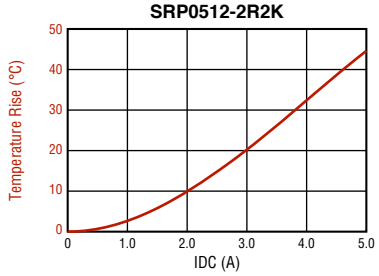
SRP0512-1R0K



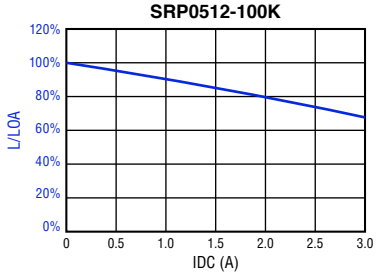
SRP0512-2R2K



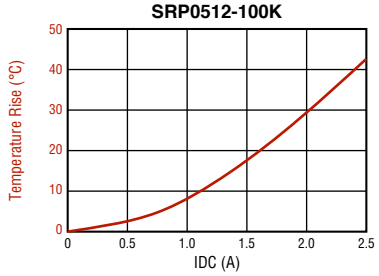
SRP0512-2R2K



SRP0512-100K



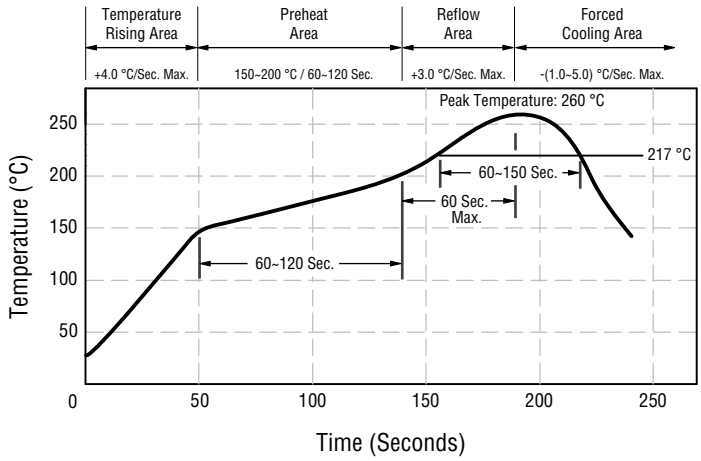
SRP0512-100K



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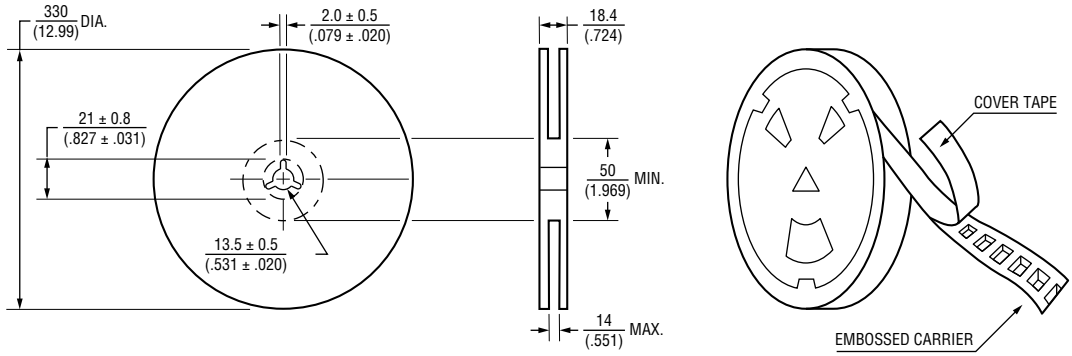
Soldering Profile

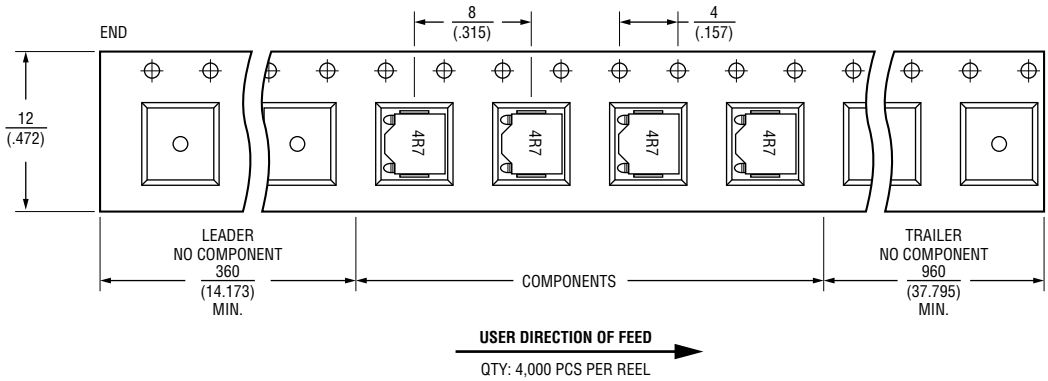
Peak Temperature: 260 °C max.
Max. Peak Temperature -5 °C: 30 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.



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Packaging Specifications





DIMENSIONS: MM / (INCHES)

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