

Features

- Semi-shielded construction
- Miniature size
- Low profile: 1.2 mm
- Inductance range: 0.24 to 2.2 µH
- Rated current up to 4.7 A
- RoHS compliant* and halogen free**

Applications

- DC/DC converters
- Notebook computers
- Digital video cameras
- HDDs
- Cellphones
- Televisions, LCD displays

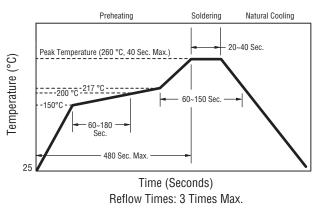
SRN2512 Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

	Inductance @ 1 MHz / 0.1 V		Q	Test Freg.	SRF (MHz)	DCR (Ω)	Irms	Isat
Bourns Part No.	L (μΗ)	Tol. %	(Ref.)	(MHz)	Min.	Max.	(A)	(A)
SRN2512-R24M	0.24	20	7	1	330	0.024	4.7	8.0
SRN2512-R33M	0.33	20	7	1	300	0.032	4.5	5.7
SRN2512-R47M	0.47	20	8	1	190	0.032	4.4	5.5
SRN2512-R68M	0.68	20	9	1	140	0.043	3.6	4.5
SRN2512-1R0M	1.0	20	10	1	120	0.057	3.5	3.9
SRN2512-1R5M	1.5	20	10	1	90	0.096	2.5	3.0
SRN2512-2R2M	2.2	20	11	1	80	0.102	2.3	2.7

Soldering Profile

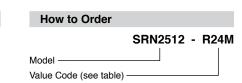




Electrical Schematic

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Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116 EMEA: Tel: +36 88 520 390 · Fax: +36 88 520 211 The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700 www.bourns.com

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

RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (CI) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (CI) content is 1500 ppm or less. 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

General Specifications

Operating Temperature

(Temperature rise included) Storage Temperature -40 °C to +85 °C Resistance to Solder Heat

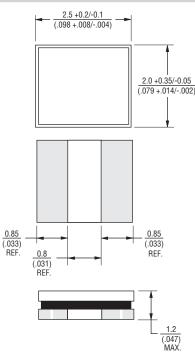
.....+260 °C for 40 sec. Temperature Rise40 °C at rated Irms Rated Current

..... Inductance drops 30 % at Isat

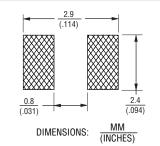
Materials

Core.....Ferrite Wire Enameled copper Terminal FinishSn Coating Magnetic epoxy resin Packaging 2000 pcs. per 7-inch reel

Product Dimensions



Recommended Layout



SRN2512 Series - Semi-shielded Power Inductors

0.5

0.4

0.3

0.2

0.1 0

2.0

1.5

1.0

0.5

0

0

Inductance (M)

0

2

Inductance (µH)

SRN2512-R33M

4

DC Current(A)

SRN2512-1R0M

2

DC Current(A)

6

3

8

4

BOURNS

0.8

0.6

0.4

0.2

0

2.5

2.0

1.5

1.0

0.5

0

0

0.6

1.2

DC Current(A)

1.8

2.4

3.0

Inductance (µH)

0

2

Inductance (µH)

SRN2512-R47M

4

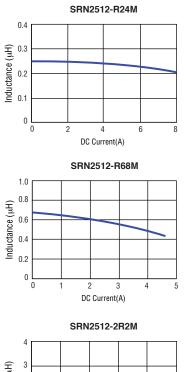
DC Current(A)

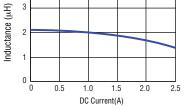
SRN2512-1R5M

6

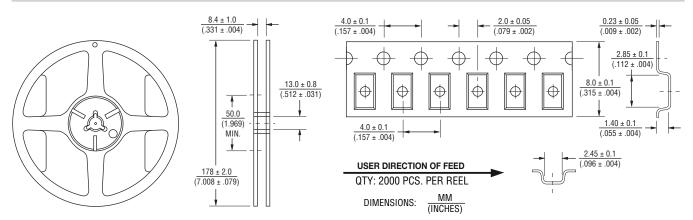
8

L vs. IDC





Packaging Specifications



REV. 12/14

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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