

Features

- Shielded construction for low radiation
- Low ACR and DCR
- Low loss – high efficiency
- Available in 2520 size
- Developed for use with DDR5 PMIC
- RoHS compliant* and halogen free**

Applications

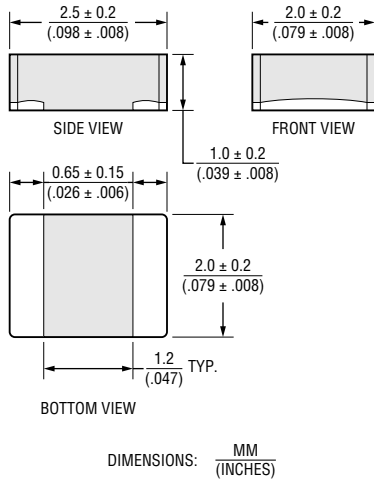
- Client DDR5 modules
- Desktop PCs, notebooks, tablets

SRP2512CL Series – Shielded Power Inductors

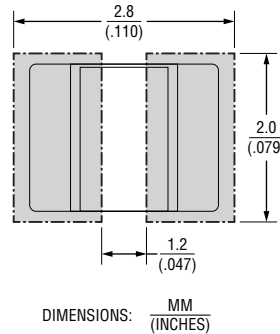
Electrical Specifications @ 25 °C

Bourns Part No.	Inductance (μH) $\pm 20\%$ @ 500 kHz / 1.0 V			DCR (m Ω)		ACR (m Ω) @ 1 MHz Max.	I _{rms} (A)		I _{sat} (A)	
	L0A	L3.5A Min.	L6A Min.	Typ.	Max.		Typ.	Max.	Typ.	Max.
SRP2512CL-1R0M	1.0	0.6	0.38	20	24	152	5.0	4.5	4.5	4.0
SRP2512CL-1R5M	1.5	0.84	0.46	30	36	210	4.2	3.8	3.8	3.4

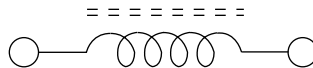
Product Dimensions



Recommended Layout



Electrical Schematic



Additional Information

Click these links for more information:



General Specifications

Operating Temperature -40 °C to +125 °C
(Temperature rise included)

Storage Temperature (Component) -40 °C to +125 °C

Temperature Rise ... 40 °C at rated I_{rms}¹

Rated Current Inductance drops 30 % at I_{sat}

Moisture Sensitivity Level 1

ESD Classification (HBM) N/A

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 Nanocrystalline core

Wire Enameled copper

Terminal Finish Cu/Ni/Sn

Packaging 2000 pcs. per 7-inch reel

How to Order

SRP2512CL - 1R0 M

Model _____

Value Code (see table) _____

Tolerance _____
M = $\pm 20\%$

BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

www.bourns.com



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.

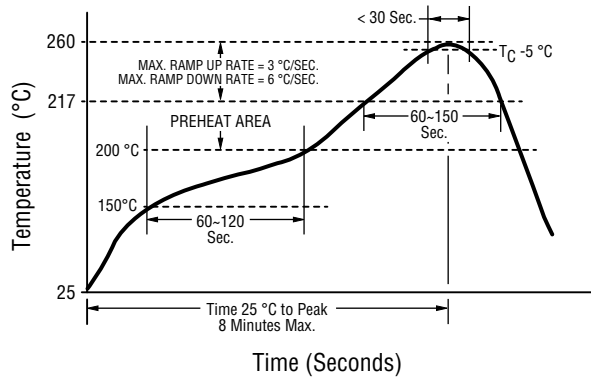
Specifications are subject to change without notice.

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.

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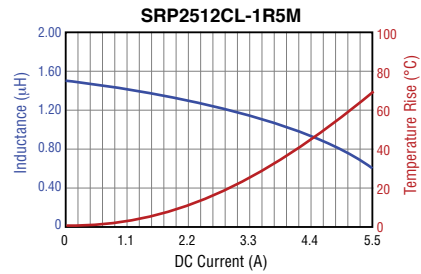
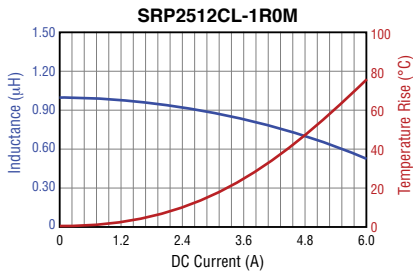
Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time (t_s) from T_{smin} to T_{smax} 	150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_P)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_P)	260 °C
Time within 5 °C of Actual Peak Temperature (t_p)	< 30 seconds
Ramp-Down Rate (T_P to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

L vs. I Charts



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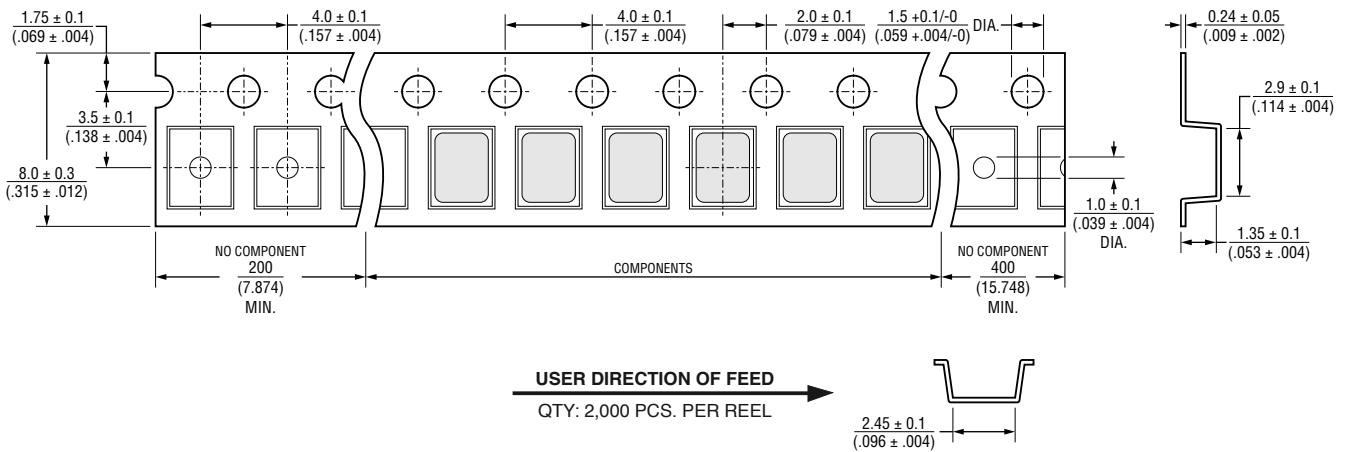
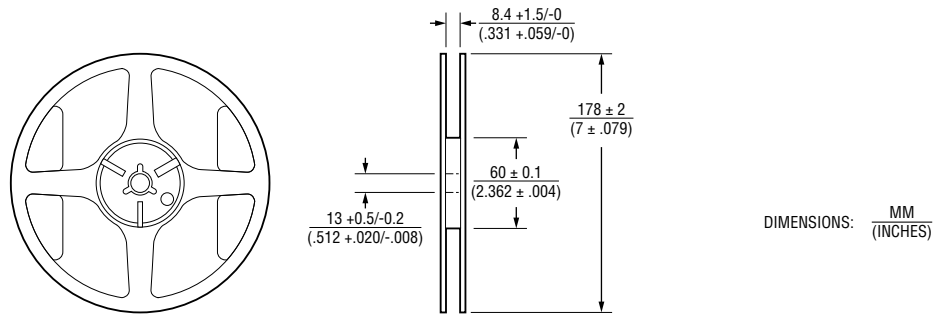
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Packaging Specifications



REV. 05/25

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