



THE DATASHEET OF SRP5020C-R33M



Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range 0.1 to 10 μ H
- RoHS compliant* and halogen free**



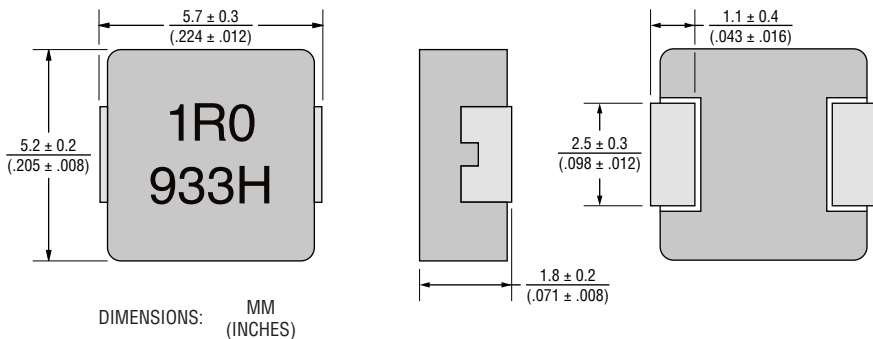
This series is currently available but not recommended for new designs.

SRP5020C Series – Shielded Power Inductors

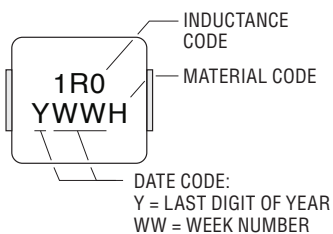
Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Min. @ 100 kHz	SRF (MHz) Typ.	DCR (m Ω) Typ.	DCR (m Ω) Max.	I rms (A) Typ.	I sat (A) Typ.
	L (μ H)	Tol. %						
SRP5020C-R10Y	0.10	± 30 %	5	200	2.7	3	20	36
SRP5020C-R15Y	0.15	± 30 %	5	180	3.6	4	18	34
SRP5020C-R22M	0.22	± 20 %	5	125	4.1	4.6	16	23
SRP5020C-R33M	0.33	± 20 %	5	86	5.5	6.1	14	17
SRP5020C-R47M	0.47	± 20 %	10	80	6.8	7.6	11.5	16
SRP5020C-R68M	0.68	± 20 %	10	58	10.6	11.7	10	13
SRP5020C-1R0M	1.0	± 20 %	20	55	13.8	15.2	9	10.5
SRP5020C-1R5M	1.5	± 20 %	20	42	25.6	28.7	7	9.6
SRP5020C-2R2M	2.2	± 20 %	20	40	36	41	5.5	8.8
SRP5020C-3R3M	3.3	± 20 %	20	30	66	74	4	7
SRP5020C-4R7M	4.7	± 20 %	20	27	95	109	3.2	6
SRP5020C-6R8M	6.8	± 20 %	20	25	130	150	2.8	5
SRP5020C-8R2M	8.2	± 20 %	20	15	150	171	2.6	4
SRP5020C-100M	10	± 20 %	20	10	180	190	2.5	3.6

Product Dimensions



Typical Part Marking



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 Irms¹

MSL 1

ESD Classification (HBM)..... N/A

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

Materials

Core..... Metal alloy powder

Wire Enameled copper

Terminal Finish Sn

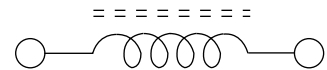
Packaging..... 3000 pcs. per 13-inch reel

How to Order

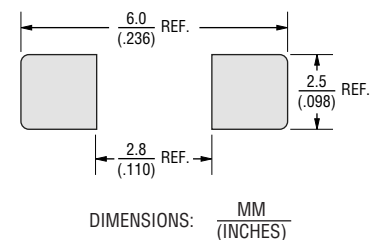
SRP5020C - 100M

Model
Value Code (see table)

Schematic



Recommended Layout



* 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.

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WARNING

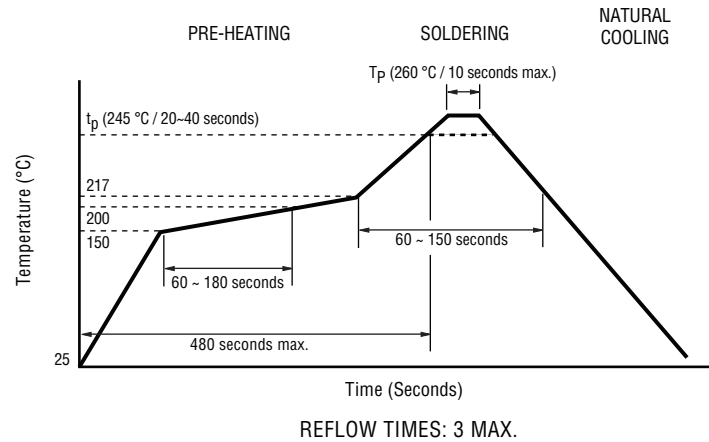
Cancer and Reproductive Harm

www.P65Warnings.ca.gov

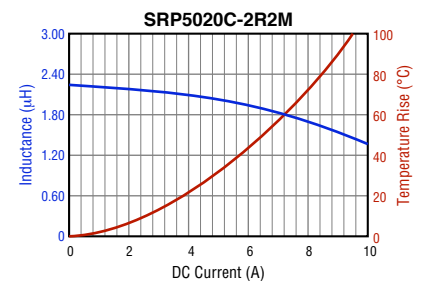
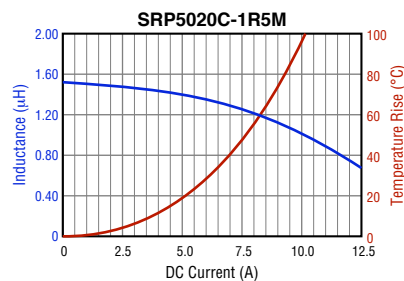
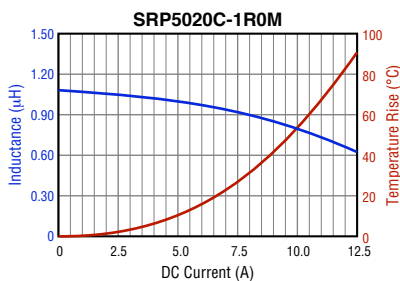
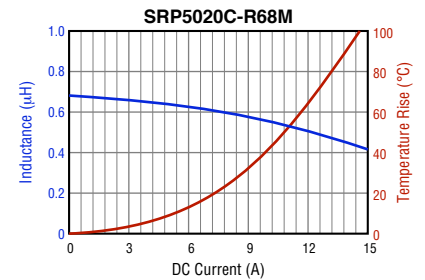
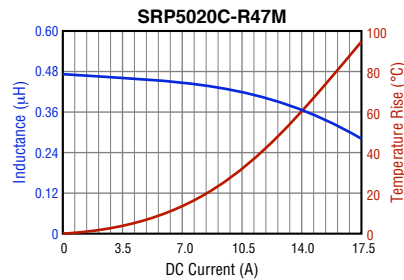
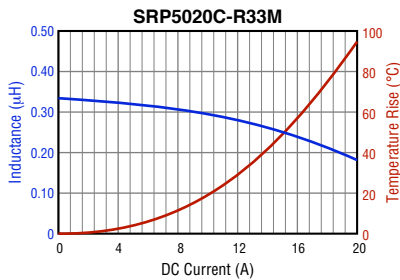
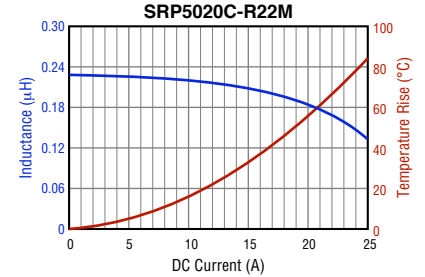
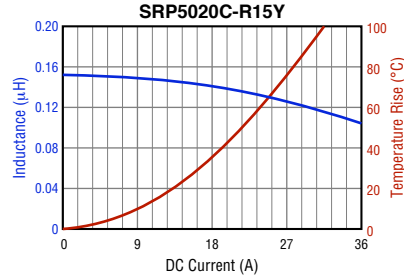
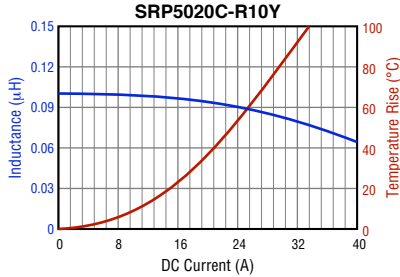
SRP5020C Series – Shielded Power Inductors

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Soldering Profile



L vs. I Charts



Specifications are subject to change without notice.

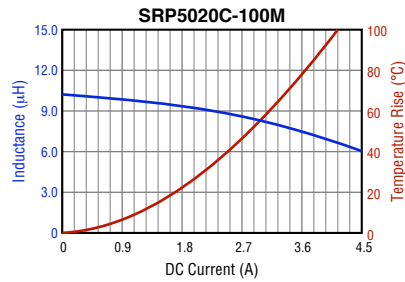
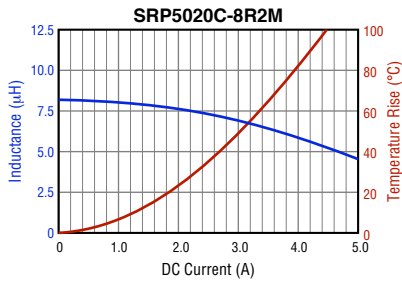
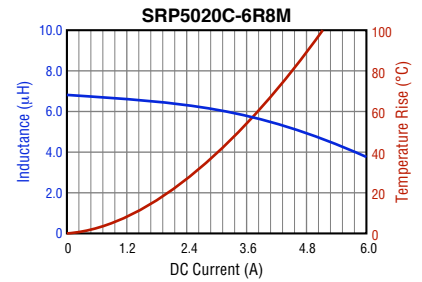
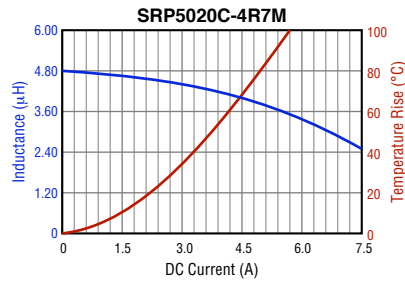
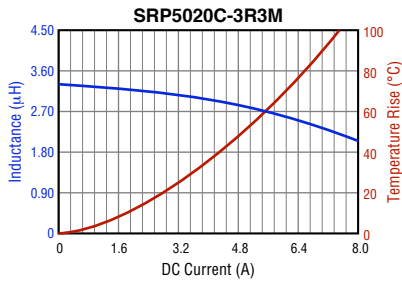
Users should verify actual device performance in their specific applications.

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L vs. I Charts (Continued)



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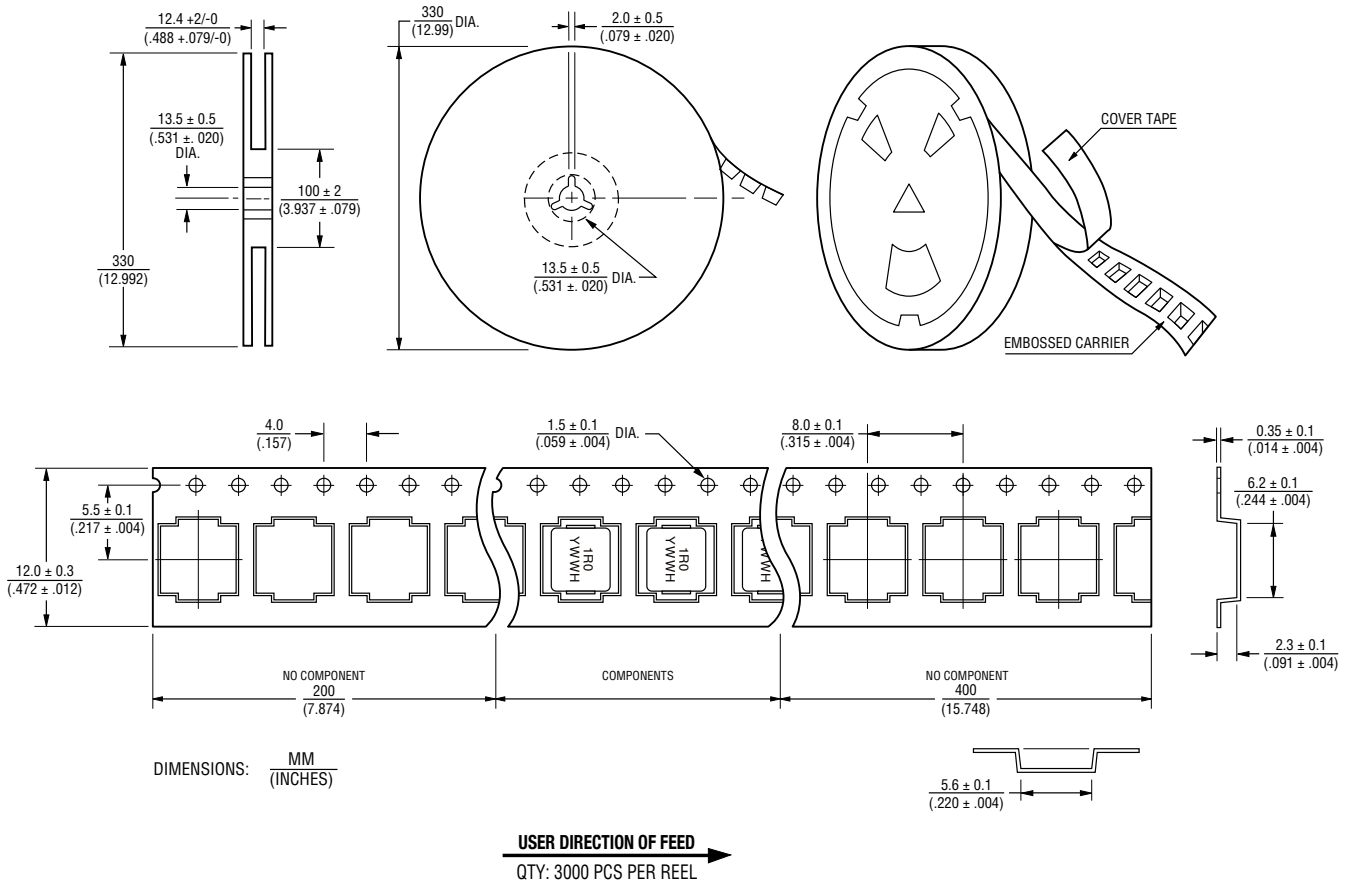
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Packaging Specifications



BOURNS®

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

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REV. 05/22

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