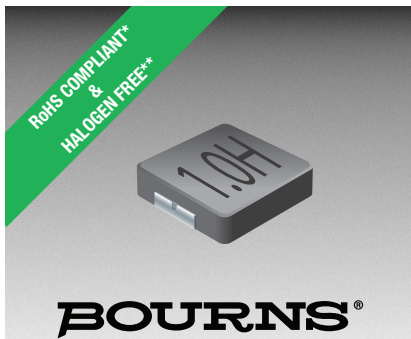




THE DATASHEET OF SRP3012C-5R6M





Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range 0.15 to 10 μ H
- RoHS compliant* and halogen free**



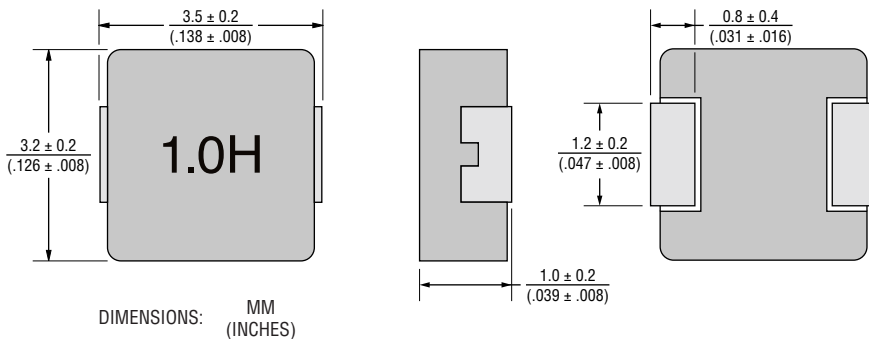
This series is currently available but not recommended for new designs.

SRP3012C Series – Shielded Power Inductors

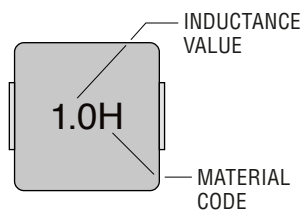
Electrical Specifications @ 25 °C

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.	Marking
	L (μ H)	Tol. %							
SRP3012C-R15Y	0.15	± 30 %	10	180	9.6	11	10	14	.15H
SRP3012C-R22M	0.22	± 20 %	10	140	14	17	8	12	.22H
SRP3012C-R33M	0.33	± 20 %	10	115	16	20	7	9.8	.33H
SRP3012C-R47M	0.47	± 20 %	10	98	25	30	5	6.5	.47H
SRP3012C-R68M	0.68	± 20 %	10	75	34	40	4.5	5.8	.68H
SRP3012C-1R0M	1.0	± 20 %	10	50	50	60	3.3	5.2	1.0H
SRP3012C-1R5M	1.5	± 20 %	10	42	71	85	3	4	1.5H
SRP3012C-2R2M	2.2	± 20 %	10	38	98	115	2.7	3.2	2.2H
SRP3012C-3R3M	3.3	± 20 %	10	34	172	198	2	2.6	3.3H
SRP3012C-4R7M	4.7	± 20 %	10	31	245	282	1.6	2.3	4.7H
SRP3012C-5R6M	5.6	± 20 %	10	27	310	360	1.5	2	5.6H
SRP3012C-6R8M	6.8	± 20 %	10	26	360	400	1.4	1.8	6.8H
SRP3012C-8R2M	8.2	± 20 %	10	25	420	463	1.2	1.5	8.2H
SRP3012C-100M	10	± 20 %	10	24	450	520	1.1	1.4	10H

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

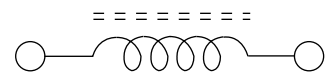
Packaging..... 4000 pcs. per 13-inch reel

How to Order

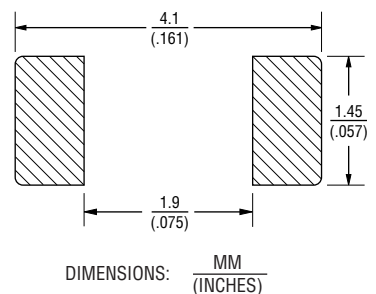
SRP3012C - 100M

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

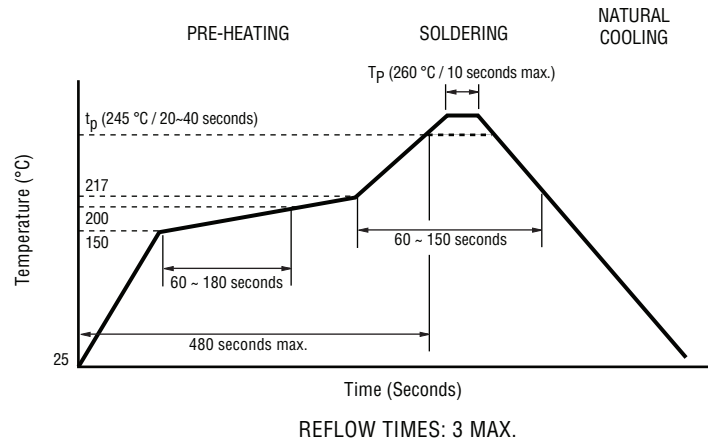
Cancer and Reproductive Harm

www.P65Warnings.ca.gov

SRP3012C Series – Shielded Power Inductors

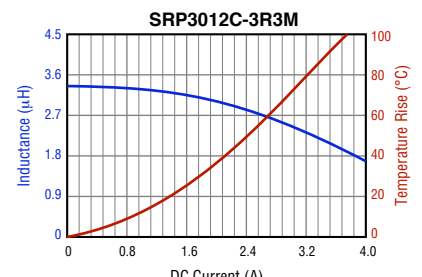
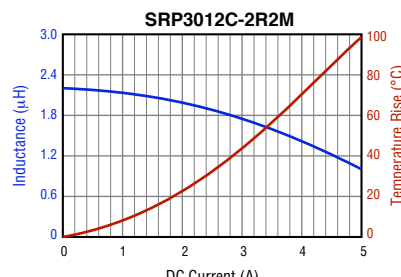
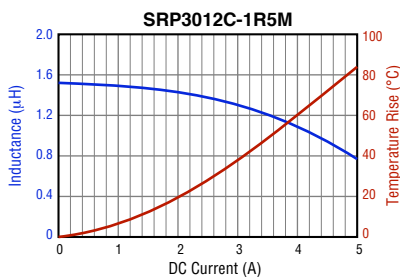
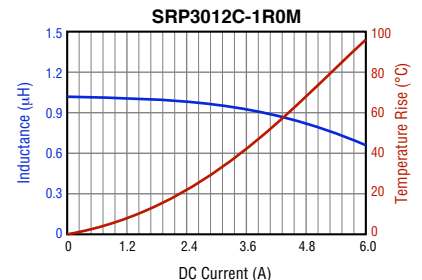
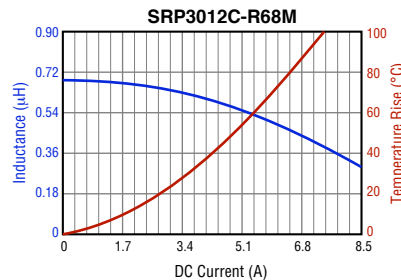
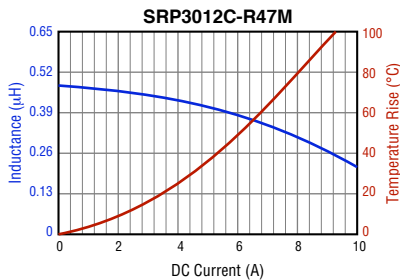
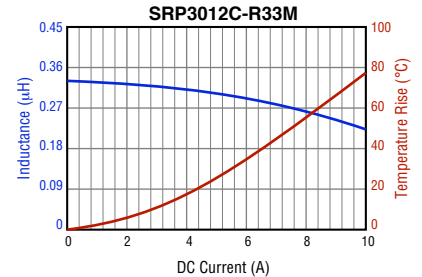
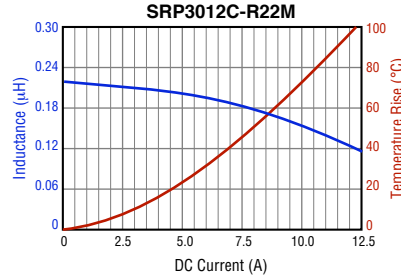
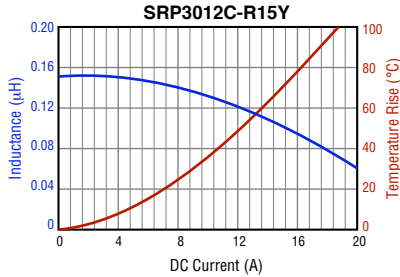
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Soldering Profile



REFLOW TIMES: 3 MAX.

L vs. I Charts



Specifications are subject to change without notice.

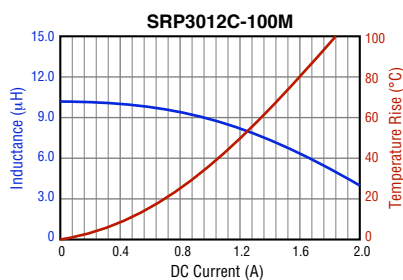
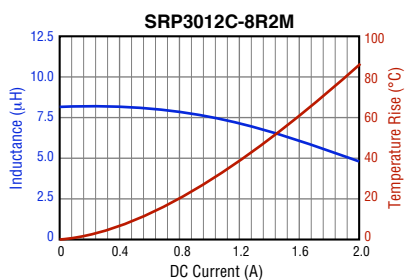
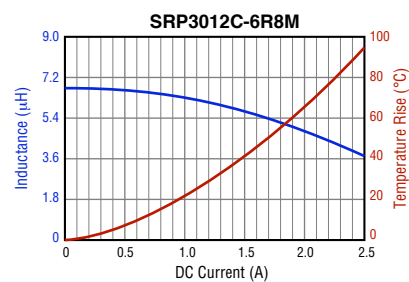
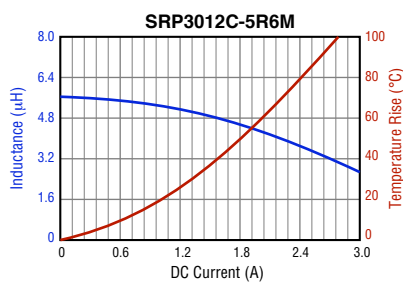
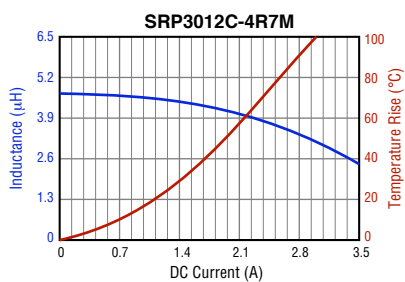
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L vs. I Charts (Continued)



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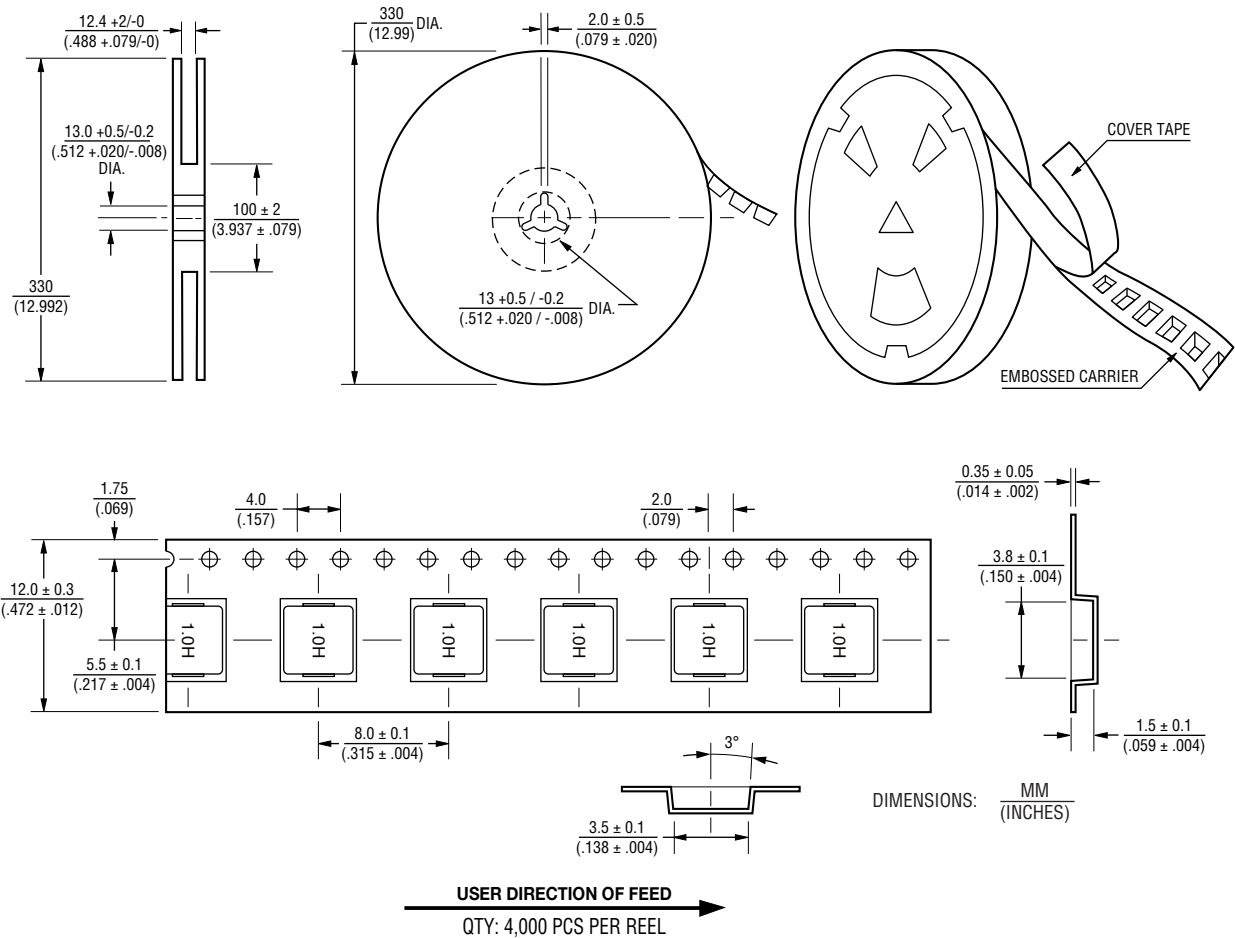
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SRP3012C Series – Shielded Power Inductors

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Packaging Specifications



BOURNS®

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

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

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

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REV. 05/22

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