



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

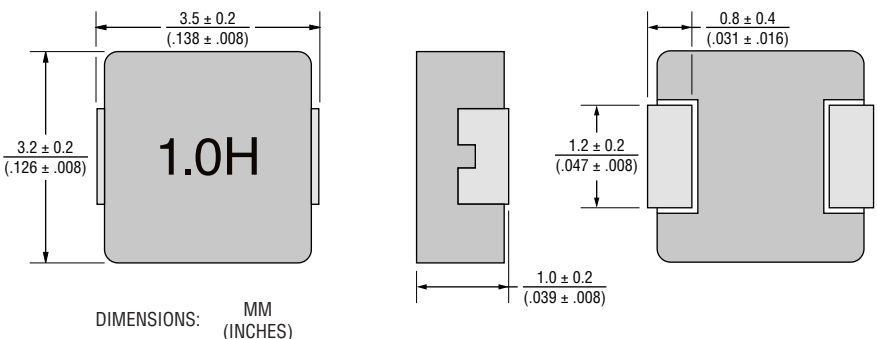
General Specifications

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!
 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.

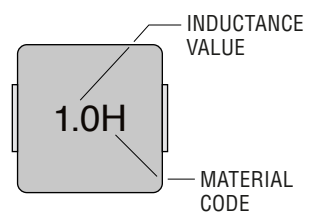
Materials

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

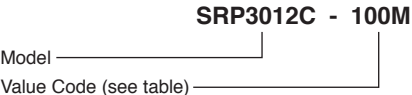
Product Dimensions



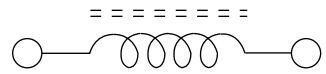
Typical Part Marking



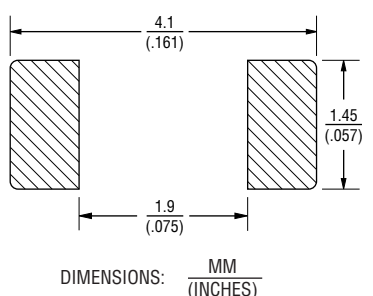
How to Order



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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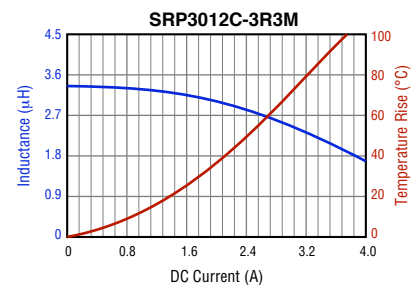
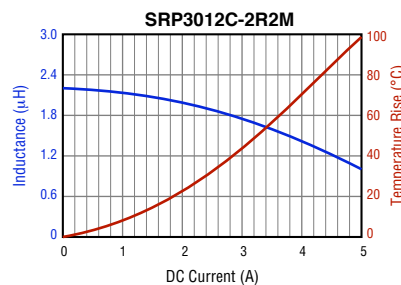
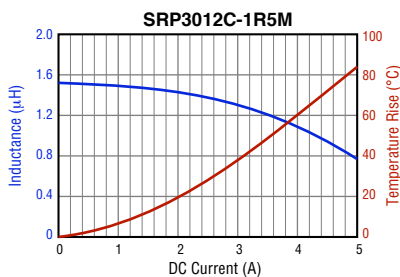
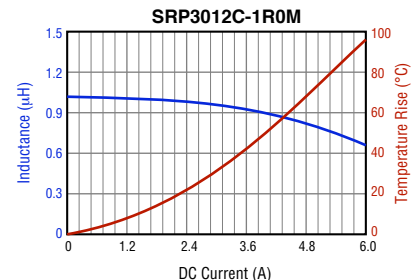
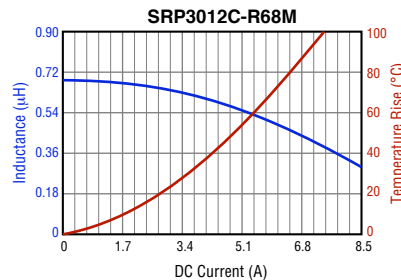
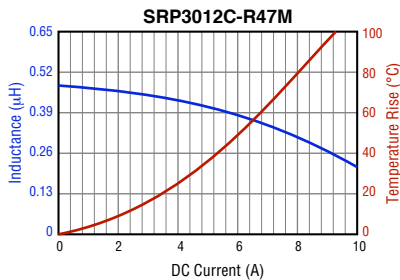
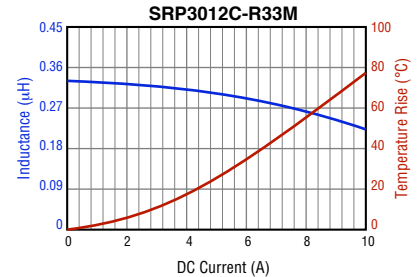
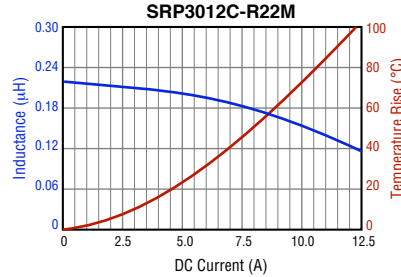
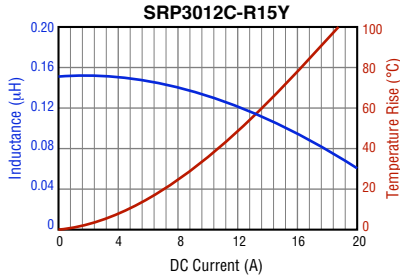
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Soldering Profile



REFLOW TIMES: 3 MAX.

L vs. I Charts



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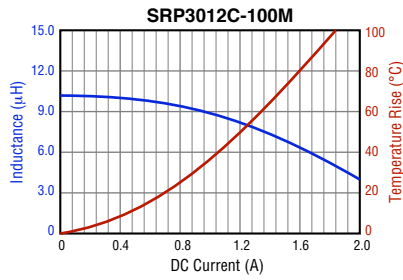
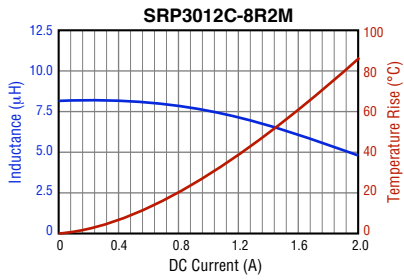
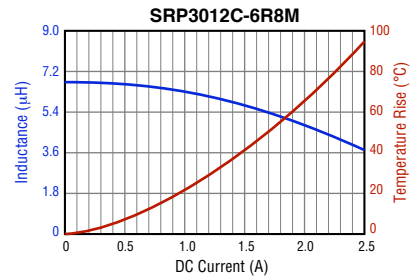
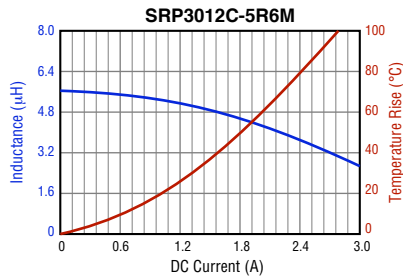
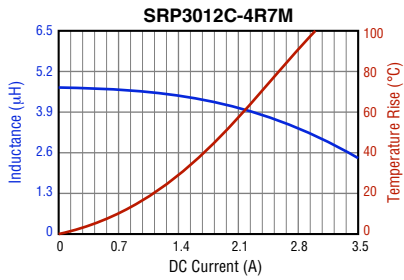
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L vs. I Charts (Continued)



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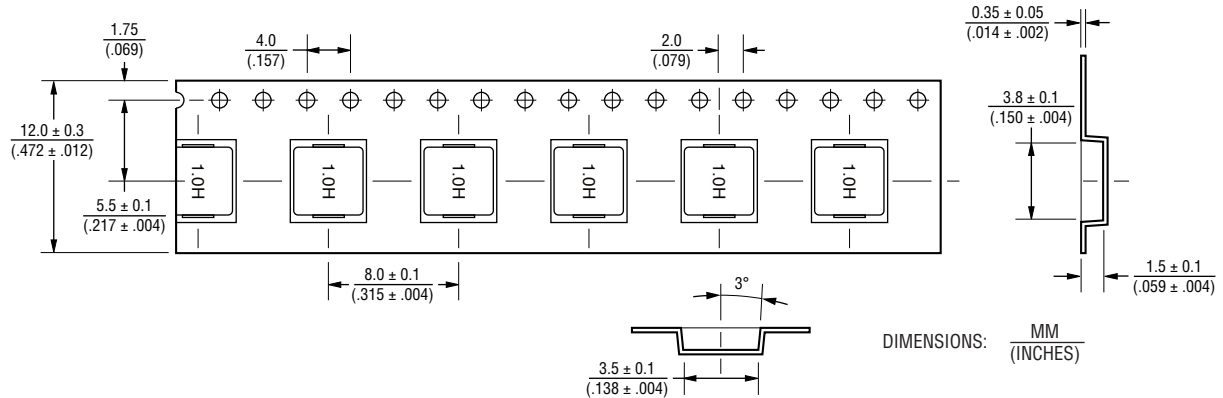
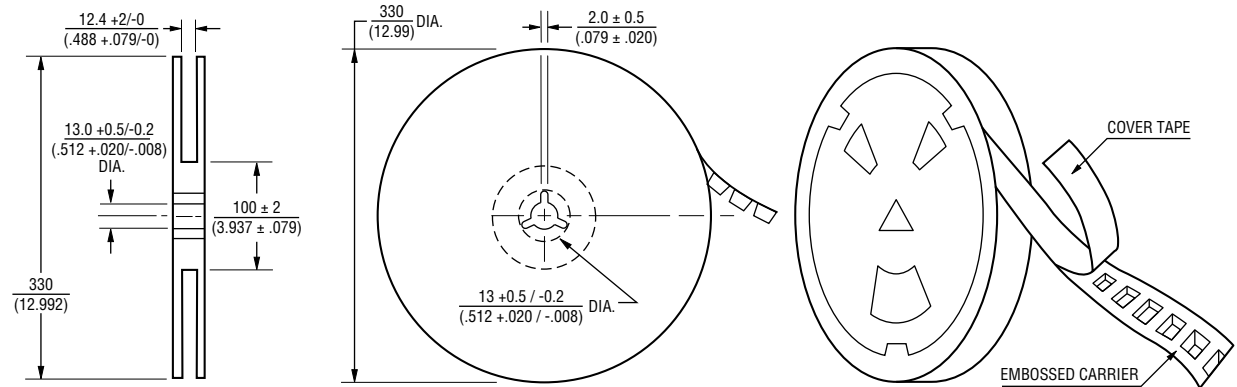
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Packaging Specifications



USER DIRECTION OF FEED →
QTY: 4,000 PCS PER REEL

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

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REV. 05/22

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