



Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Low radiation
- Low buzz noise
- RoHS compliant* and halogen free**

SRP4012CC Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q Min.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I _{rms} (A) Typ.	I _{sat} (A) Typ.
	L (μH)	Tol. %						
SRP4012CC-R10Y	0.10	30	5	400	4.3	5.5	11.5	25
SRP4012CC-R15Y	0.15	30	5	300	5.5	6.8	10	21.5
SRP4012CC-R22M	0.22	20	10	200	6.6	8	8.5	20
SRP4012CC-R33M	0.33	20	10	170	13.6	16	7	11
SRP4012CC-R36M	0.36	20	10	143	15.5	18	6.5	8.5
SRP4012CC-R47M	0.47	20	10	120	18	20	6.0	6.5
SRP4012CC-R68M	0.68	20	10	100	32	27	5.0	6
SRP4012CC-1R0M	1.0	20	10	80	41	47	4.0	6
SRP4012CC-1R2M	1.2	20	10	70	48	56	3.5	5
SRP4012CC-1R5M	1.5	20	10	62	55	63.3	3	4.0
SRP4012CC-2R2M	2.2	20	10	58	69.2	80	2.8	3.5
SRP4012CC-3R3M	3.3	20	10	41	84	97	2.3	3.0
SRP4012CC-4R7M	4.7	20	10	35	128	145	2	2.5
SRP4012CC-5R6M	5.6	20	10	30	180	208	1.7	2.3
SRP4012CC-6R8M	6.8	20	10	28	300	360	1.5	1.7
SRP4012CC-8R2M	8.2	20	10	25	313	376	1.4	1.6
SRP4012CC-100M	10	20	10	23	310	463	1.3	1.4
SRP4012CC-180M	18	20	10	15	860	960	0.9	1.1
SRP4012CC-220M	22	20	10	12	950	1050	0.8	1

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 Rise40 °C at rated I_{rms}¹
Rated Current

..... Inductance drops 30 % at I_{sat}

Moisture Sensitivity Level.....1

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

¹Circuit 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

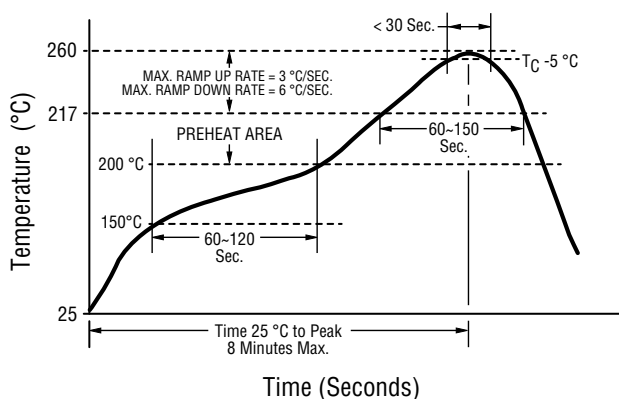
Core.....Carbonyl powder

WireEnameled copper

Terminal Finish Sn

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

Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - 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 60-120 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.



WARNING Cancer and Reproductive Harm

www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

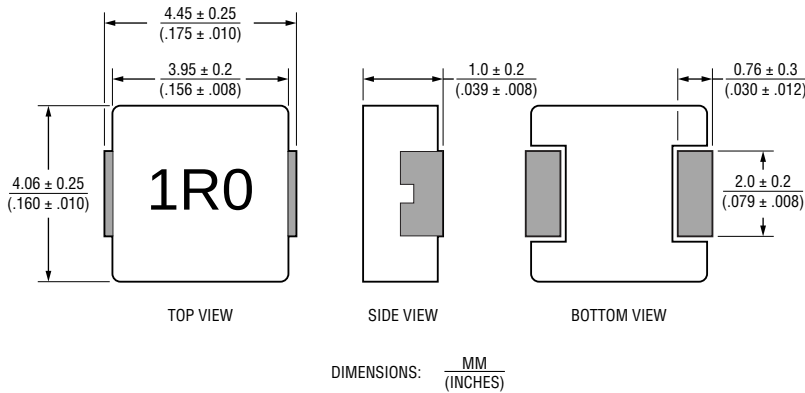
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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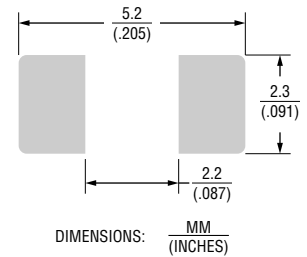
SRP4012CC Series - Shielded Power Inductors

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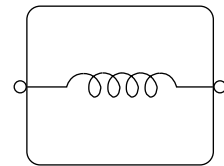
Product Dimensions



Recommended Layout



Electrical Schematic

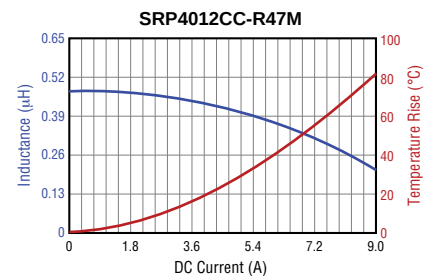
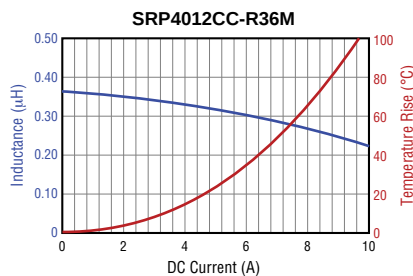
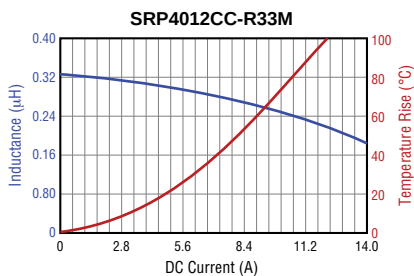
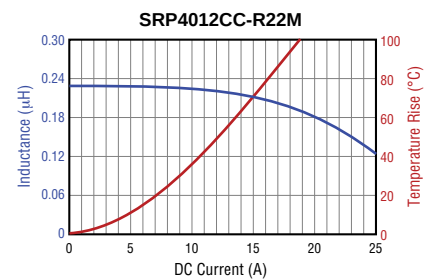
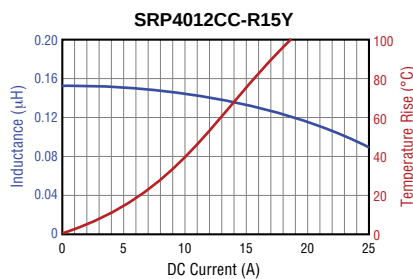
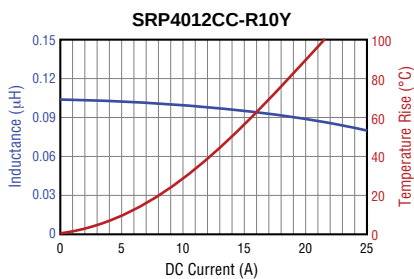


How to Order

SRP4012CC - R10Y

Model
Value Code (see table)

L vs. IDC and Temperature vs. IDC Curves



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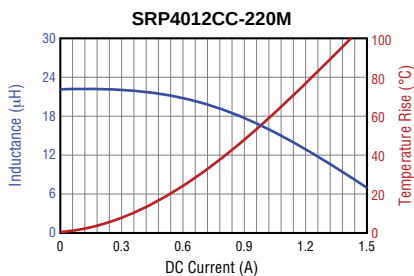
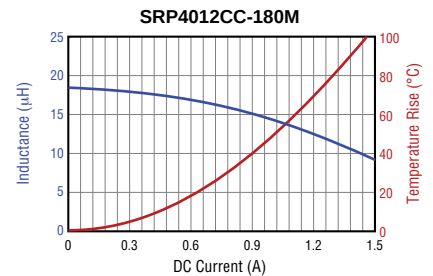
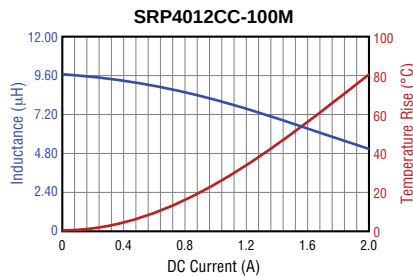
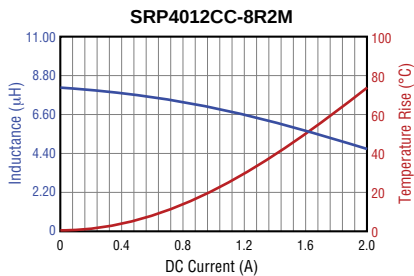
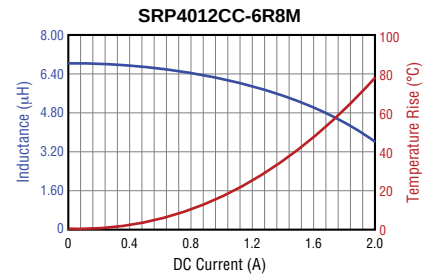
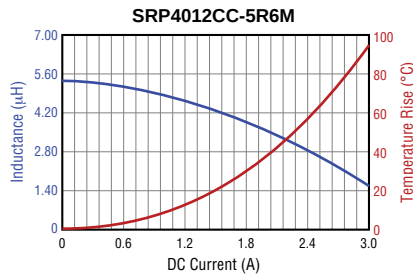
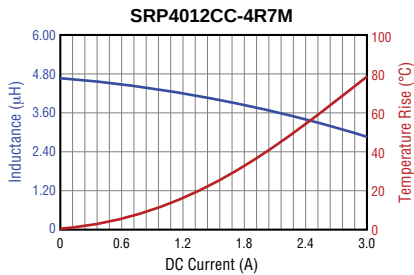
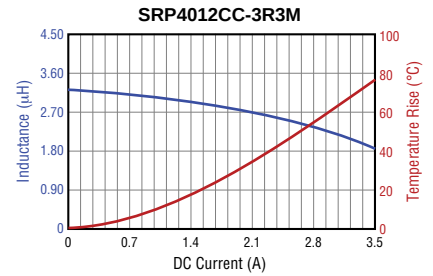
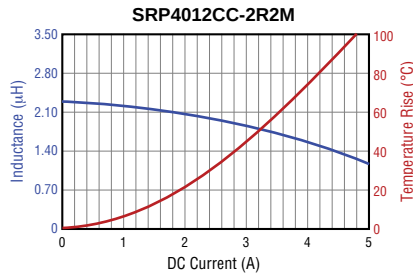
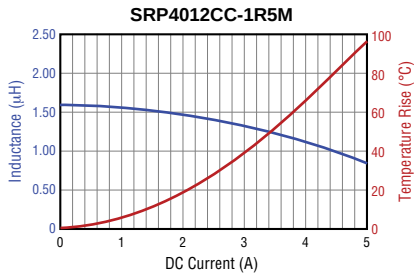
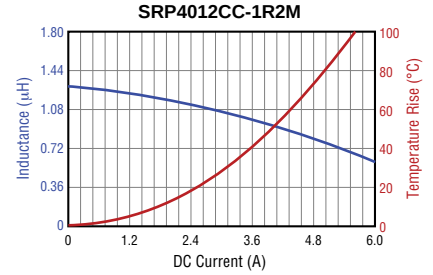
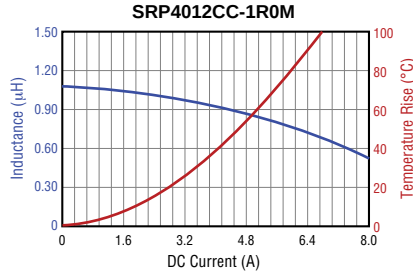
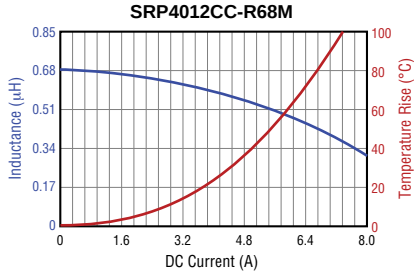
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L vs. IDC and Temperature vs. IDC Curves (continued)



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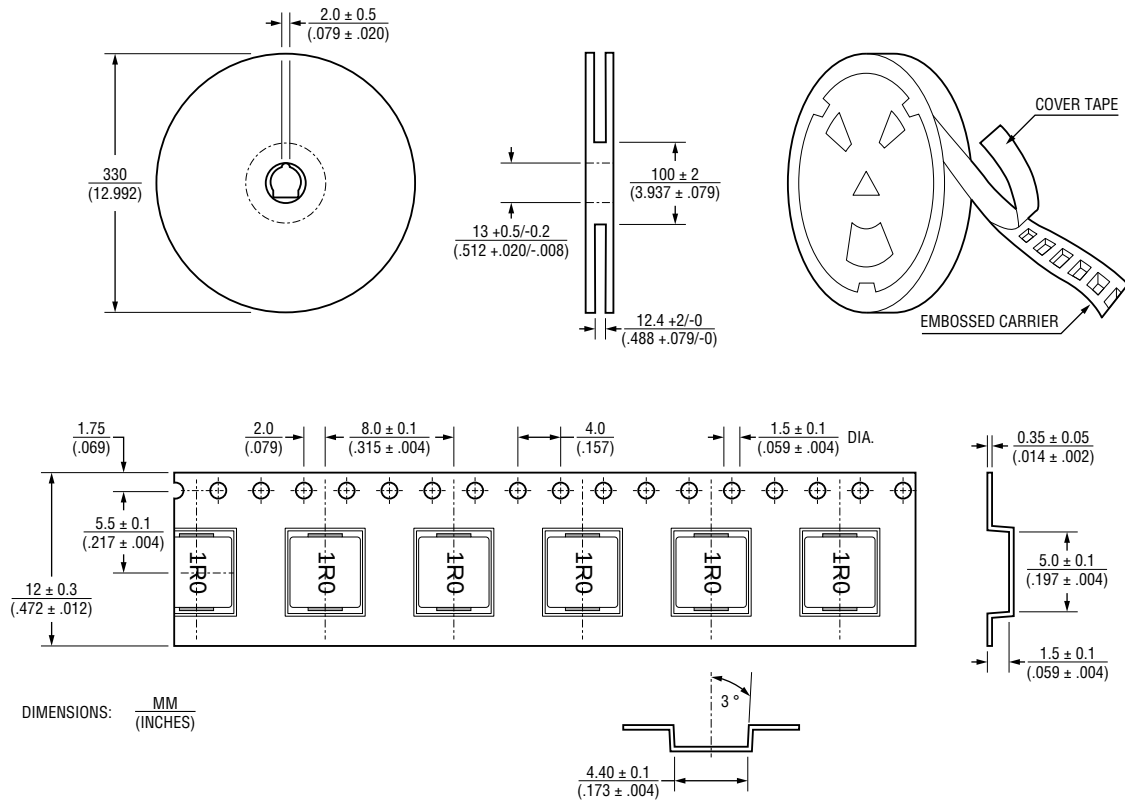
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Packaging Specifications



USER DIRECTION OF FEED →

QTY: 4000 PCS. PER REEL

BOURNS®

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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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