

Features

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

SRP5020CC 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.	Irms (A) Typ.	Isat (A) Typ.
	L (µH)	Tol. %						
SRP5020CC-R10Y	0.10	30	5	190	2.7	3	20	36
SRP5020CC-R15Y	0.15	30	5	190	3.6	4	18	24
SRP5020CC-R22M	0.22	20	5	145	4.1	4.6	16	23
SRP5020CC-R33M	0.33	20	5	117	5.5	6.1	14	17
SRP5020CC-R47M	0.47	20	5	100	6.8	7.6	11.5	16
SRP5020CC-R68M	0.68	20	5	90	10.6	11.7	10	13
SRP5020CC-1R0M	1.0	20	10	64	13.8	15.2	9	10.5
SRP5020CC-1R5M	1.5	20	10	52	25.6	28.7	7	9.6
SRP5020CC-2R2M	2.2	20	10	38	36	41	5.5	8.8
SRP5020CC-3R3M	3.3	20	10	35	66	74	4	7
SRP5020CC-4R7M	4.7	20	10	30	95	109	3.2	6
SRP5020CC-6R8M	6.8	20	10	23	130	150	2.8	5
SRP5020CC-8R2M	8.2	20	10	20	150	171	2.6	4
SRP5020CC-100M	10	20	10	18	180	199	2.5	3.6

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

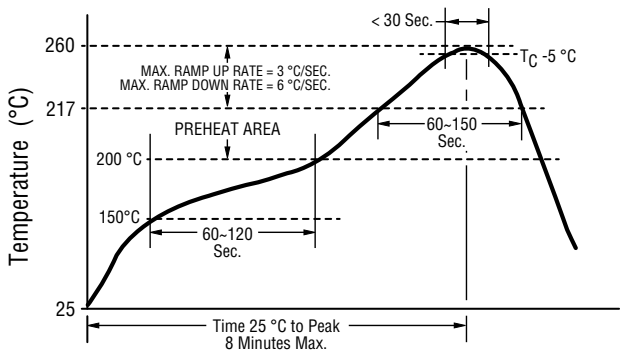
Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component)
..... -40 °C to +125 °C
Temperature Rise .....40 °C at rated I_{rms}[1]
Rated Current
..... Inductance drops 30 % at I_{sat}
Moisture Sensitivity Level.....1
ESD Classification (HBM).....N/A

[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.....Carbonyl powder
Wire .....Enameled copper
Terminal Finish ..... Sn
Packaging..... 3000 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 60-150 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.

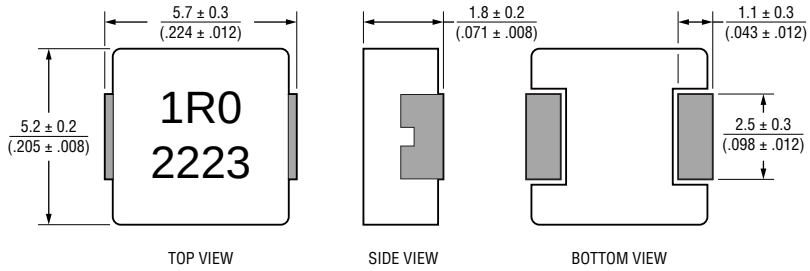
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* 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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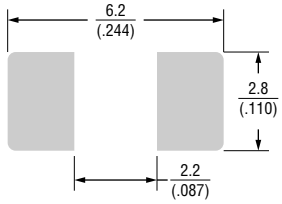
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Product Dimensions



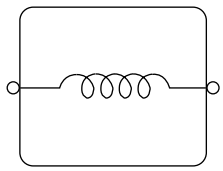
DIMENSIONS: MM / (INCHES)

Recommended Layout



DIMENSIONS: MM / (INCHES)

Electrical Schematic



How to Order

SRP5020CC - R10Y

Model

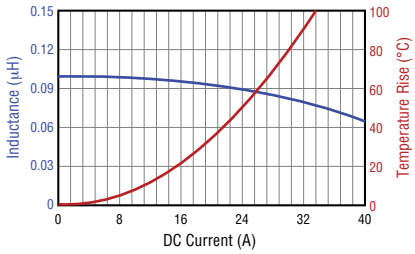
Value Code (see table)

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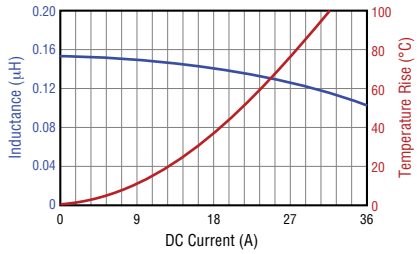
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L vs. IDC and Temperature vs. IDC Curves

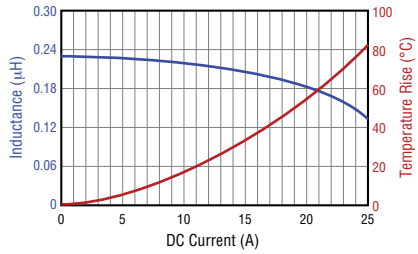
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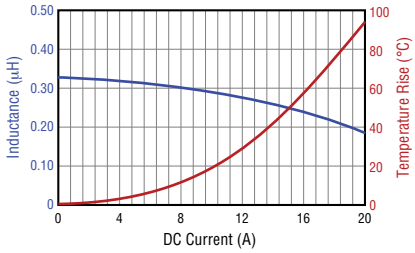
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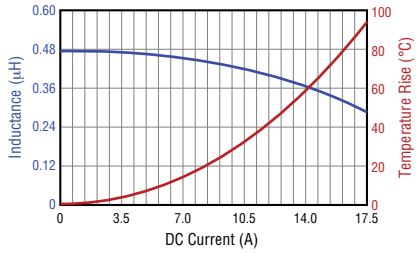
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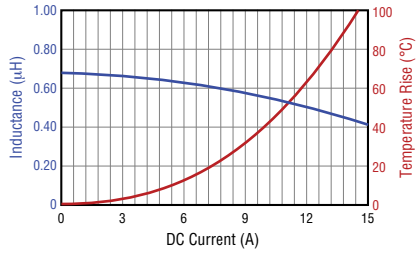
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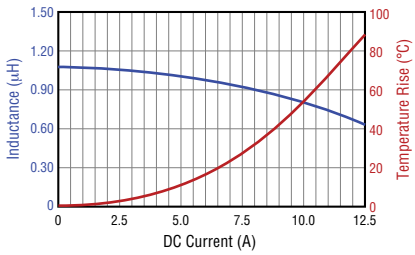
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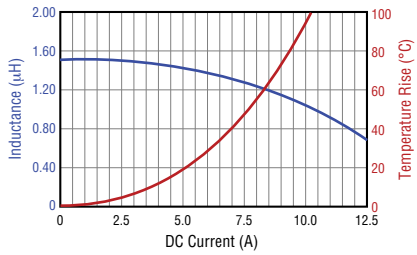
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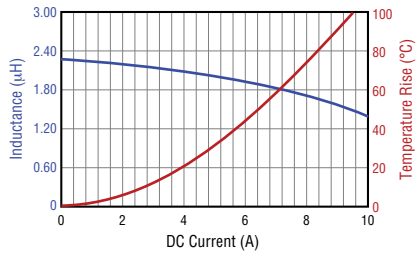
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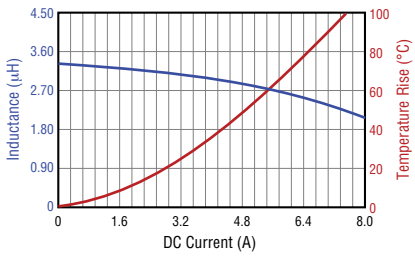
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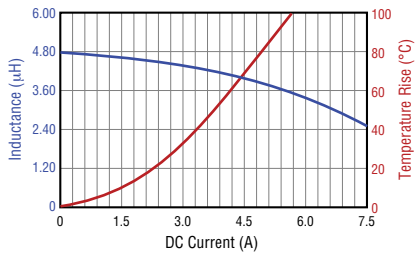
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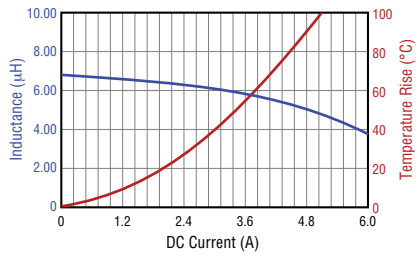
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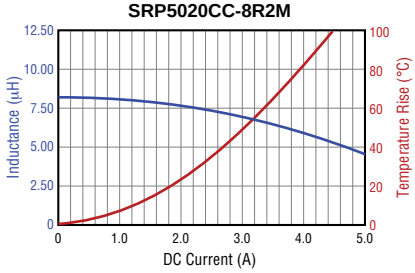
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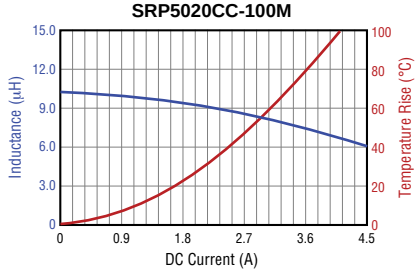
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SRP5020CC-8R2M



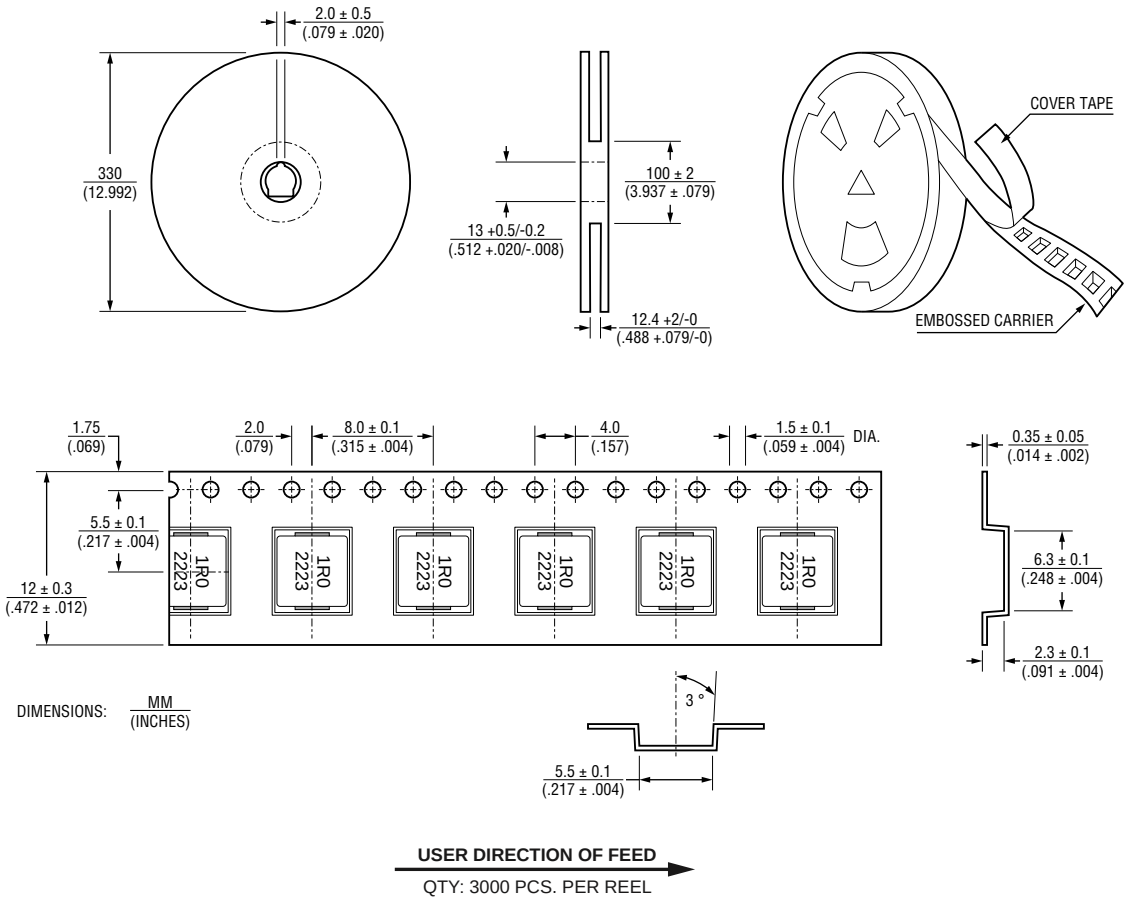
SRP5020CC-100M



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Packaging Specifications



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