

Features

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



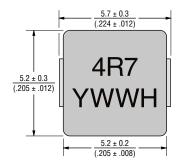
BOURNS

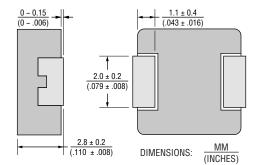
SRP5030C Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

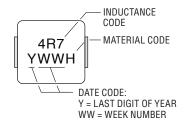
| Bourns | Inductance @ 100 kHz / 1 V | | Q Min. @ | SRF (MHz) | DCR (mΩ) | DCR (mΩ) | I rms (A) | I sat (A) |
|---------------|-------------------------------|--------|-------------|--------------|-------------|-------------|--------------|--------------|
| Part Number | L (μH) | Tol. % | 100 kHz | Typ. | Тур. | Max. | Typ. | Typ. |
| SRP5030C-R10Y | 0.10 | ± 30 % | 10 | 177 | 2.5 | 3 | 25 | 33 |
| SRP5030C-R12Y | 0.12 | ± 30 % | 10 | 177 | 2.5 | 3 | 23 | 31 |
| SRP5030C-R15Y | 0.15 | ± 30 % | 12 | 130 | 2.6 | 3.2 | 22 | 30 |
| SRP5030C-R33M | 0.33 | ± 20 % | 12 | 85 | 4.4 | 5 | 17 | 20 |
| SRP5030C-R47M | 0.47 | ± 20 % | 20 | 60 | 6.4 | 7.4 | 16 | 17 |
| SRP5030C-R68M | 0.68 | ± 20 % | 20 | 56 | 8.7 | 10 | 12 | 15 |
| SRP5030C-1R0M | 1.0 | ± 20 % | 20 | 43 | 12 | 14 | 10 | 12 |
| SRP5030C-1R5M | 1.5 | ± 20 % | 20 | 35 | 16 | 19 | 8 | 10.5 |
| SRP5030C-2R2M | 2.2 | ± 20 % | 20 | 30 | 26 | 32 | 7 | 8 |
| SRP5030C-3R3M | 3.3 | ± 20 % | 20 | 25 | 33 | 38 | 5 | 7 |
| SRP5030C-4R7M | 4.7 | ± 20 % | 20 | 20 | 50 | 53 | 4 | 6 |
| SRP5030C-5R6M | 5.6 | ± 20 % | 20 | 18 | 55 | 63 | 3.6 | 5 |
| SRP5030C-6R8M | 6.8 | ± 20 % | 20 | 16 | 63 | 72 | 3.3 | 4 |
| SRP5030C-100M | 10 | ± 20 % | 20 | 15 | 102 | 122 | 2.8 | 2.8 |

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 MSL1 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.

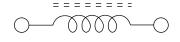
Materials

Core......Metal alloy powder WireEnameled copper Terminal FinishSn Packaging..... 2000 pcs. per 13-inch reel

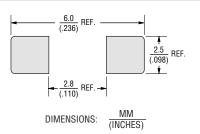
How to Order

SRP5030C - 100M Value Code (see table)

Schematic



Recommended Layout



Users should verify actual device performance in their specific applications.

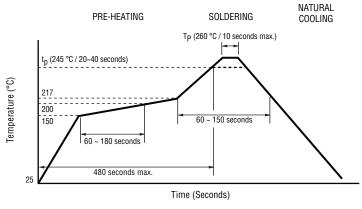
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RoHS Directive 2015/863, Mar 31, 2015 and Annex.

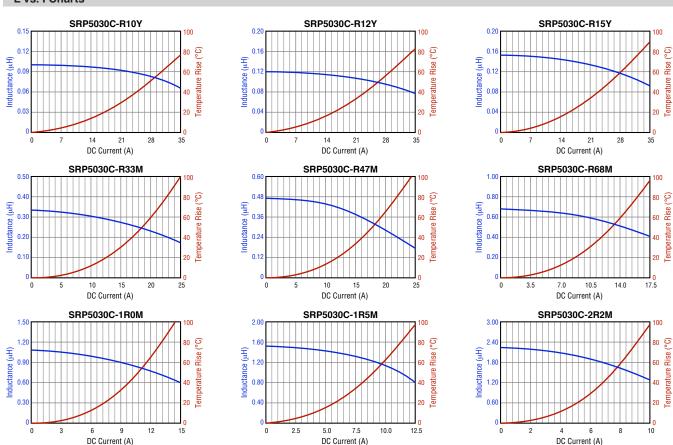
^{**} Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (CI) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (CI) content is 1500 ppm or less. Specifications are subject to change without notice.

Soldering Profile



REFLOW TIMES: 3 MAX.

L vs. I Charts

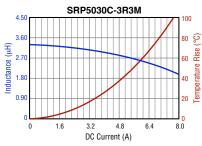


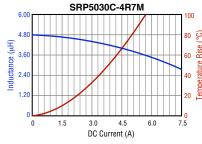
Specifications are subject to change without notice.

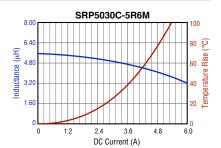
Users should verify actual device performance in their specific applications.

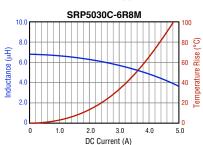
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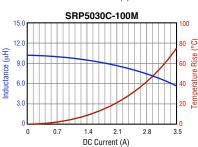
L vs. I Charts (Continued)







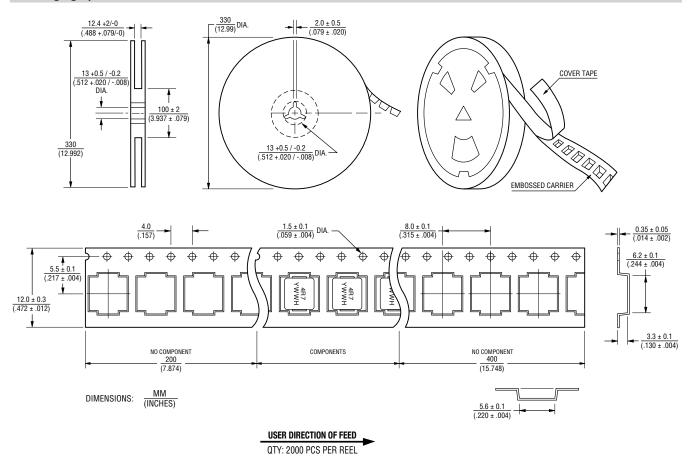




SRP5030C Series – Shielded Power Inductors

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Packaging Specifications



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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

www.bourns.com

REV. 05/22

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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