



Features

- Shielded construction
- Inductance range: 1.0 to 100 μ H
- Heating current up to 5 A
- Dimensions: 6.7 x 6.7 x 4 mm
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

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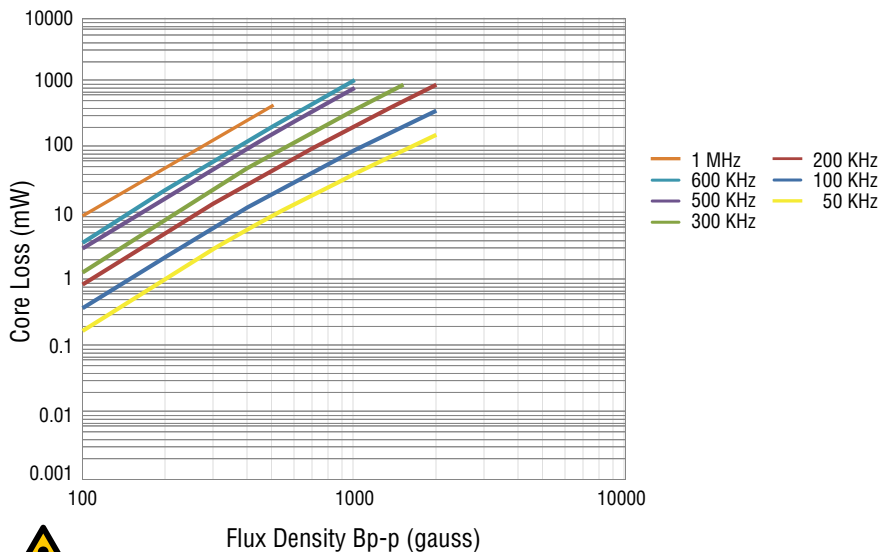
SRR6040A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 10 kHz / 1 V | | DCR (Ω) Typ. | DCR (Ω) Max. | I rms (A) | I sat (A) | ***K-Factor |
|--------------------|---------------------------|----------|-----------------------|-----------------------|-----------|-----------|-------------|
| | L (μ H) | Tol. (%) | | | | | |
| SRR6040A-1R0Y | 1.0 | ± 30 | 0.0098 | 0.015 | 5.0 | 5.55 | 388 |
| SRR6040A-3R0Y | 3.0 | ± 30 | 0.0153 | 0.021 | 3.5 | 3.33 | 233 |
| SRR6040A-5R0Y | 5.0 | ± 30 | 0.0184 | 0.025 | 2.9 | 2.63 | 184 |
| SRR6040A-6R8Y | 6.8 | ± 30 | 0.0223 | 0.03 | 2.5 | 2.17 | 152 |
| SRR6040A-8R2Y | 8.2 | ± 30 | 0.0266 | 0.036 | 2.3 | 2.0 | 140 |
| SRR6040A-100M | 10 | ± 20 | 0.0358 | 0.05 | 2.0 | 1.72 | 120 |
| SRR6040A-120M | 12 | ± 20 | 0.0397 | 0.055 | 1.7 | 1.61 | 113 |
| SRR6040A-150M | 15 | ± 20 | 0.0428 | 0.06 | 1.6 | 1.51 | 106 |
| SRR6040A-180M | 18 | ± 20 | 0.0551 | 0.075 | 1.5 | 1.35 | 94 |
| SRR6040A-220M | 22 | ± 20 | 0.0647 | 0.087 | 1.3 | 1.22 | 85 |
| SRR6040A-270M | 27 | ± 20 | 0.0769 | 0.105 | 1.2 | 1.11 | 78 |
| SRR6040A-330M | 33 | ± 20 | 0.0903 | 0.12 | 1.1 | 1.02 | 71 |
| SRR6040A-390M | 39 | ± 20 | 0.103 | 0.135 | 1.0 | 0.94 | 66 |
| SRR6040A-470M | 47 | ± 20 | 0.123 | 0.16 | 0.95 | 0.85 | 59 |
| SRR6040A-560M | 56 | ± 20 | 0.149 | 0.19 | 0.86 | 0.77 | 54 |
| SRR6040A-680M | 68 | ± 20 | 0.187 | 0.24 | 0.75 | 0.7 | 49 |
| SRR6040A-820M | 82 | ± 20 | 0.22 | 0.29 | 0.7 | 0.63 | 44 |
| SRR6040A-101M | 100 | ± 20 | 0.266 | 0.345 | 0.65 | 0.57 | 40 |

***K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μ H) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

Core Loss vs. Flux Density



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

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
 **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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf

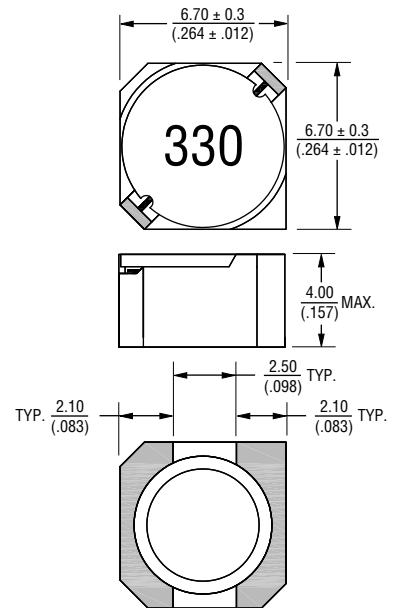
General Specifications

Operating Temperature -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature -40 °C to +125 °C
 Resistance to Solder Heat +250°C for 10 sec.
 Temperature Rise 30 °C typ. at rated Irms
 Inductance drop 35 % at Isat

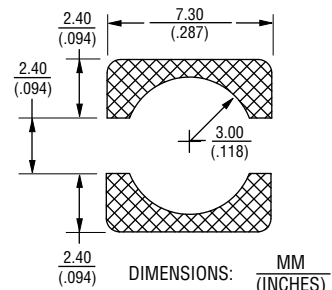
Materials

Core Ferrite
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 1000 pcs. per reel

Product Dimensions



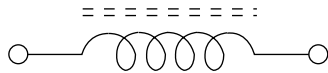
Recommended Layout



SRR6040A Series - Shielded Power Inductors

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Electrical Schematic

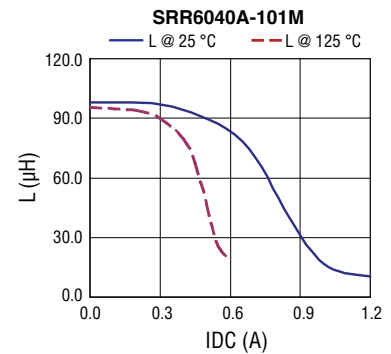
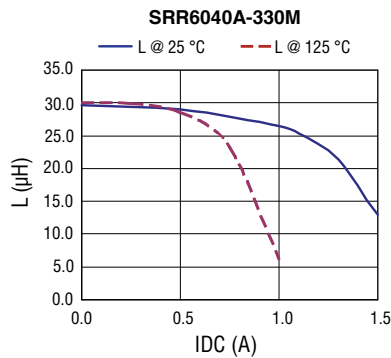
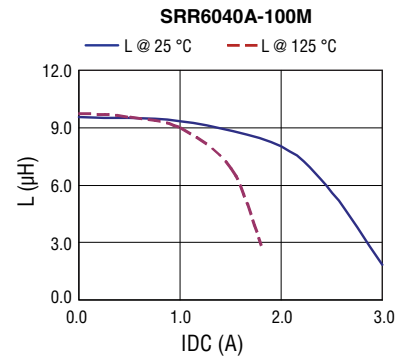
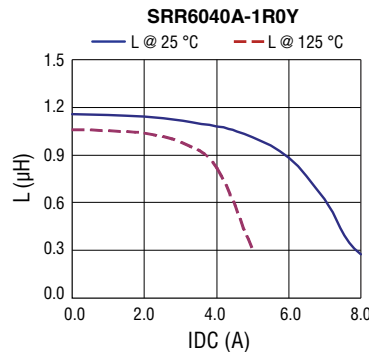


How to Order

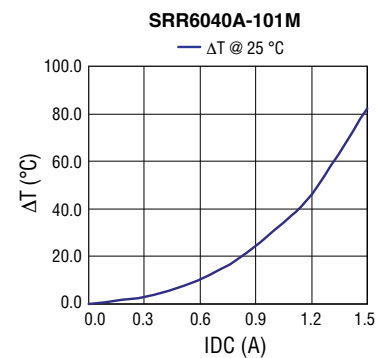
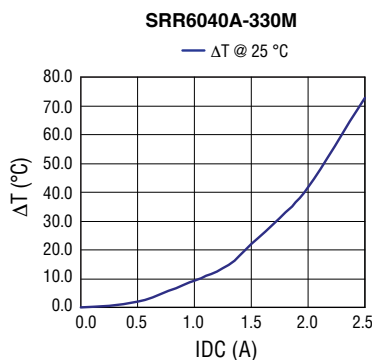
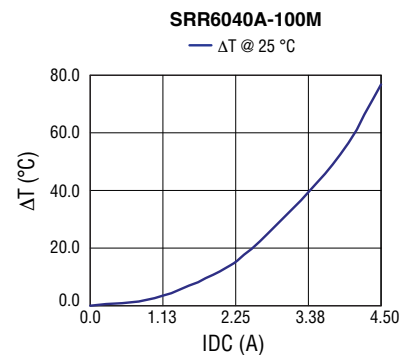
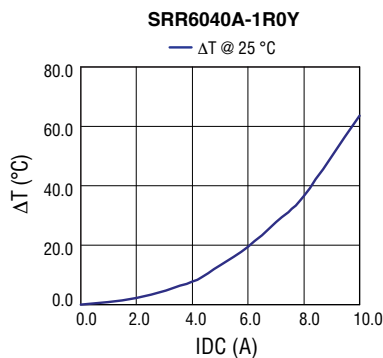
SRR6040A - 100M

Model _____
Value Code (see table) _____

Inductance vs. IDC



Temperature Rise vs. IDC



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Fax: +886-2 2562-4116

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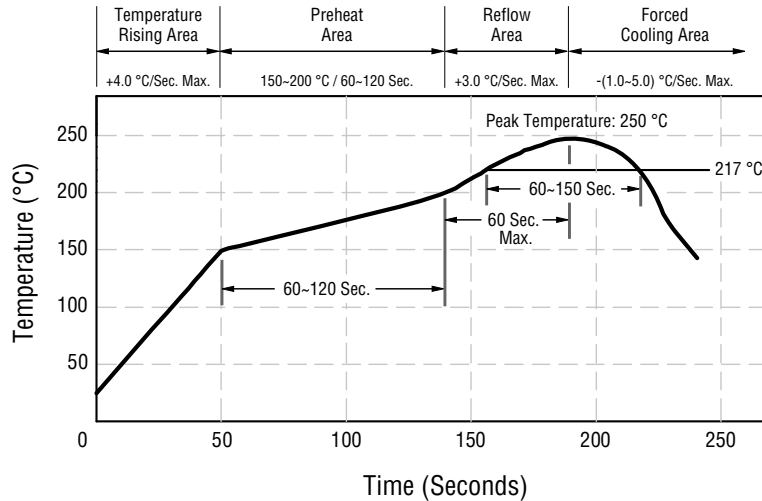
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SRR6040A Series - Shielded Power Inductors

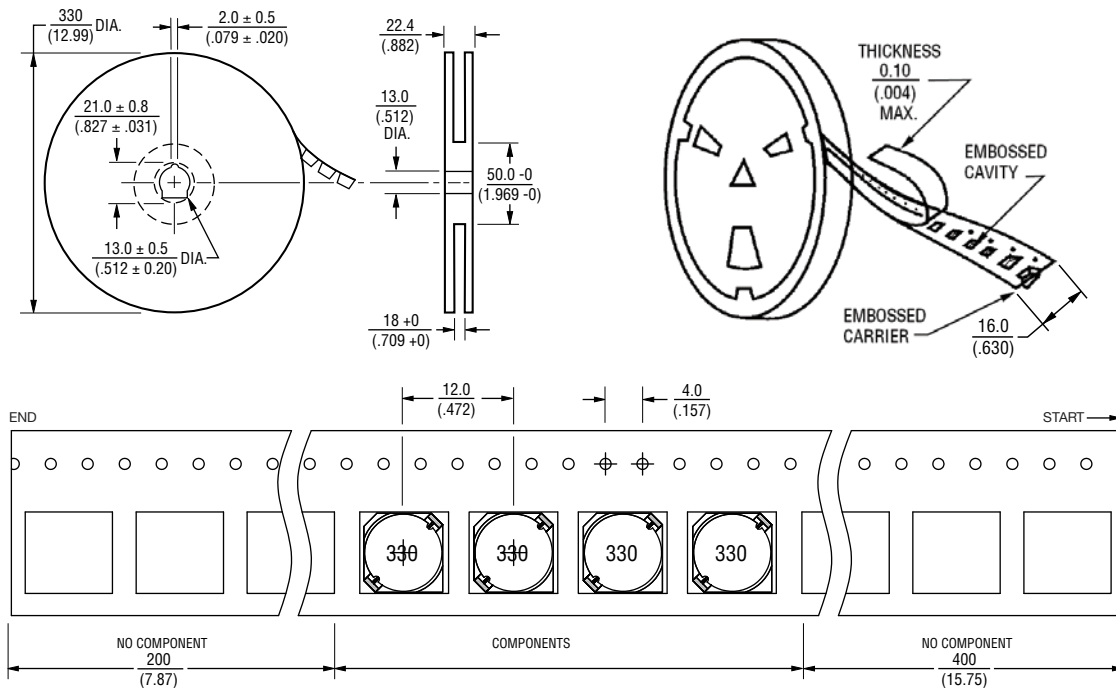
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Soldering Profile



Peak Temperature: 250 °C max.
 Max. Peak Temperature -5 °C: 30 sec. max.
 Max. Time Above 217 °C: 60~150 sec. max.

Packaging Specifications



USER DIRECTION OF FEED

QTY: 250 PCS. PER REEL

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

REV. 02/17

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