



**THE DATASHEET OF
SRR0745A-100M**





Features

- Shielded construction
- Inductance range: 10 to 1000 μ H
- Heating current up to 2.1 A
- Dimensions: 7.3 x 7.3 x 4.5 mm
- AEC-Q200 qualified
- RoHS compliant* and halogen free**



This series is currently available but not recommended for new designs. The [Model SRR0745HA Series](#) is the recommended replacement.

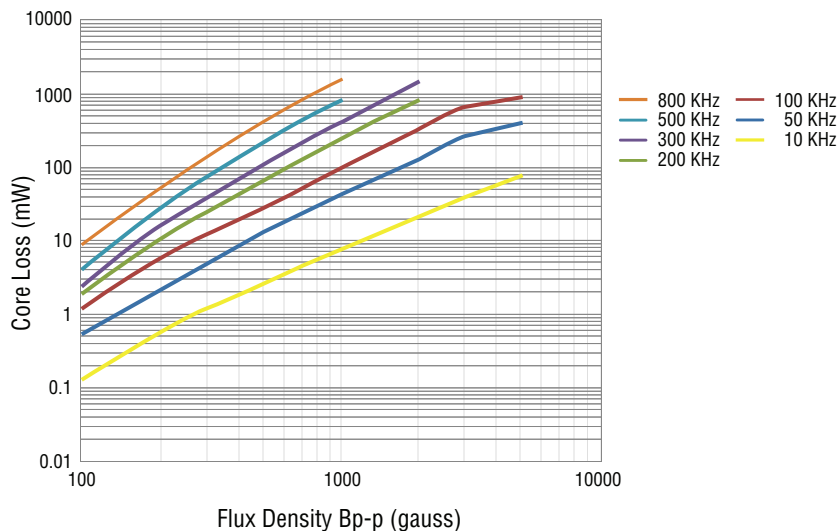
SRR0745A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 1 kHz / 1 V | | DCR (Ω) Max. | I rms (A) | I sat (A) | ***K-Factor |
|--------------------|--------------------------|----------|-----------------------|-----------|-----------|-------------|
| | L (μ H) | Tol. (%) | | | | |
| SRR0745A-100M | 10 | ± 20 | 0.052 | 2.1 | 2.5 | 112 |
| SRR0745A-120M | 12 | ± 20 | 0.062 | 2.0 | 2.3 | 98 |
| SRR0745A-150M | 15 | ± 20 | 0.075 | 1.9 | 2.1 | 88 |
| SRR0745A-180M | 18 | ± 20 | 0.09 | 1.8 | 1.95 | 83 |
| SRR0745A-220M | 22 | ± 20 | 0.096 | 1.65 | 1.75 | 72 |
| SRR0745A-270M | 27 | ± 20 | 0.13 | 1.45 | 1.62 | 66 |
| SRR0745A-330M | 33 | ± 20 | 0.15 | 1.35 | 1.45 | 59 |
| SRR0745A-390M | 39 | ± 20 | 0.19 | 1.17 | 1.3 | 55 |
| SRR0745A-470M | 47 | ± 20 | 0.21 | 1.05 | 1.2 | 50 |
| SRR0745A-560M | 56 | ± 20 | 0.24 | 0.95 | 1.1 | 47 |
| SRR0745A-680M | 68 | ± 20 | 0.3 | 0.86 | 0.96 | 41 |
| SRR0745A-820M | 82 | ± 20 | 0.4 | 0.78 | 0.9 | 38 |
| SRR0745A-101M | 100 | ± 20 | 0.45 | 0.7 | 0.78 | 34 |
| SRR0745A-121M | 120 | ± 20 | 0.55 | 0.6 | 0.7 | 32 |
| SRR0745A-151M | 150 | ± 20 | 0.76 | 0.48 | 0.58 | 29 |
| SRR0745A-181M | 180 | ± 20 | 0.82 | 0.46 | 0.54 | 26 |
| SRR0745A-221M | 220 | ± 20 | 0.95 | 0.42 | 0.5 | 23 |
| SRR0745A-271M | 270 | ± 20 | 1.2 | 0.38 | 0.46 | 22 |
| SRR0745A-331M | 330 | ± 20 | 1.5 | 0.34 | 0.4 | 20 |
| SRR0745A-391M | 390 | ± 20 | 1.85 | 0.32 | 0.36 | 18 |
| SRR0745A-471M | 470 | ± 20 | 2.2 | 0.29 | 0.34 | 16 |
| SRR0745A-561M | 560 | ± 20 | 2.6 | 0.26 | 0.3 | 15 |
| SRR0745A-681M | 680 | ± 20 | 2.8 | 0.24 | 0.28 | 13 |
| SRR0745A-821M | 820 | ± 20 | 3.5 | 0.22 | 0.26 | 12 |
| SRR0745A-102M | 1000 | ± 20 | 4.1 | 0.2 | 0.24 | 11 |

***K-Factor: To calculate core flux density, B_p -p (gauss) = $K \times L(\mu H) \times \Delta I$ (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

Core Loss vs. Flux Density



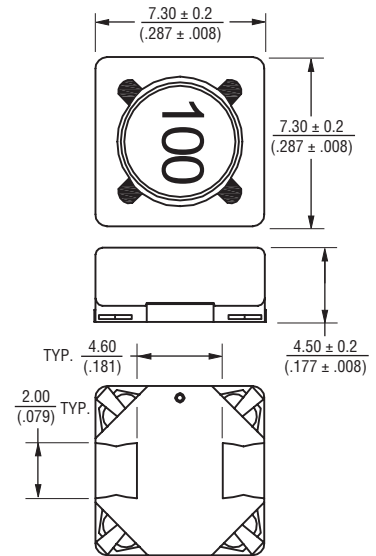
General Specifications

Operating Temperature-40 °C to +125 °C
(Temperature rise included)
Storage Temperature-40 °C to +125 °C
Temperature Rise40 °C typ. at rated I_{rms}
Inductance drop25 % at I_{sat}

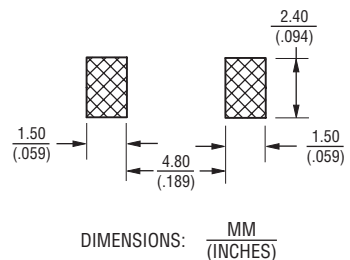
Materials

CoreFerrite
WireEnameled copper
Terminal FinishSn
Packaging1000 pcs. per reel

Product Dimensions



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. 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.

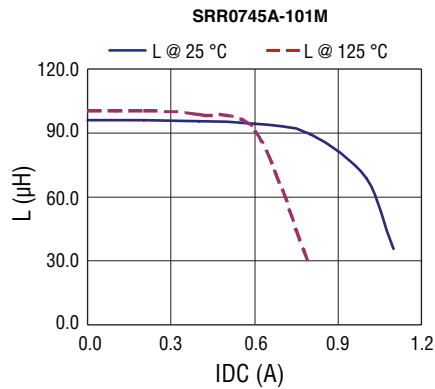
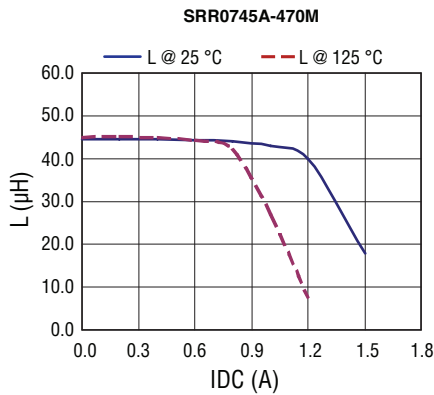


WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

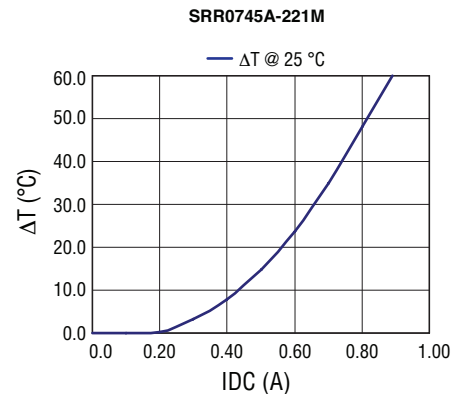
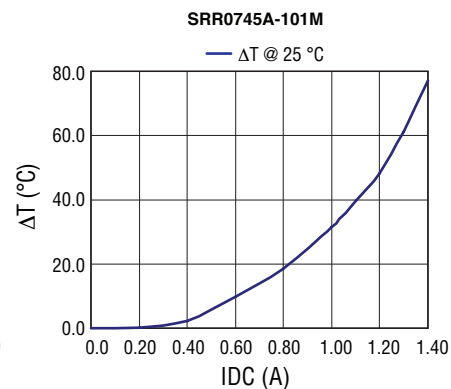
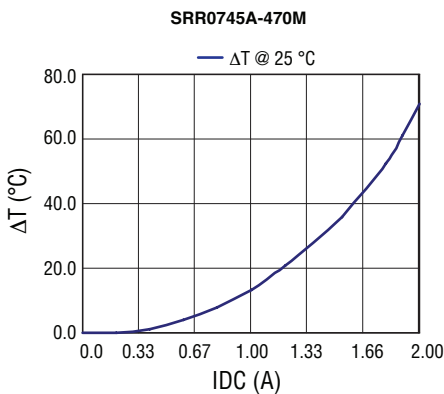
SRR0745A Series - Shielded Power Inductors



Inductance vs. IDC



Temperature Rise vs. IDC



How to Order

SRR0745A - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



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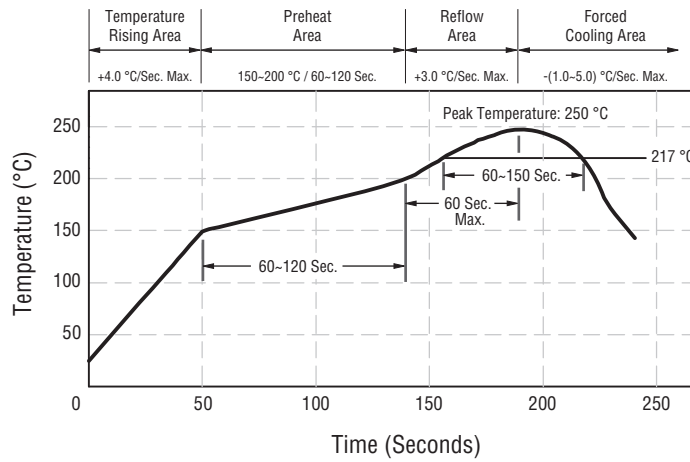
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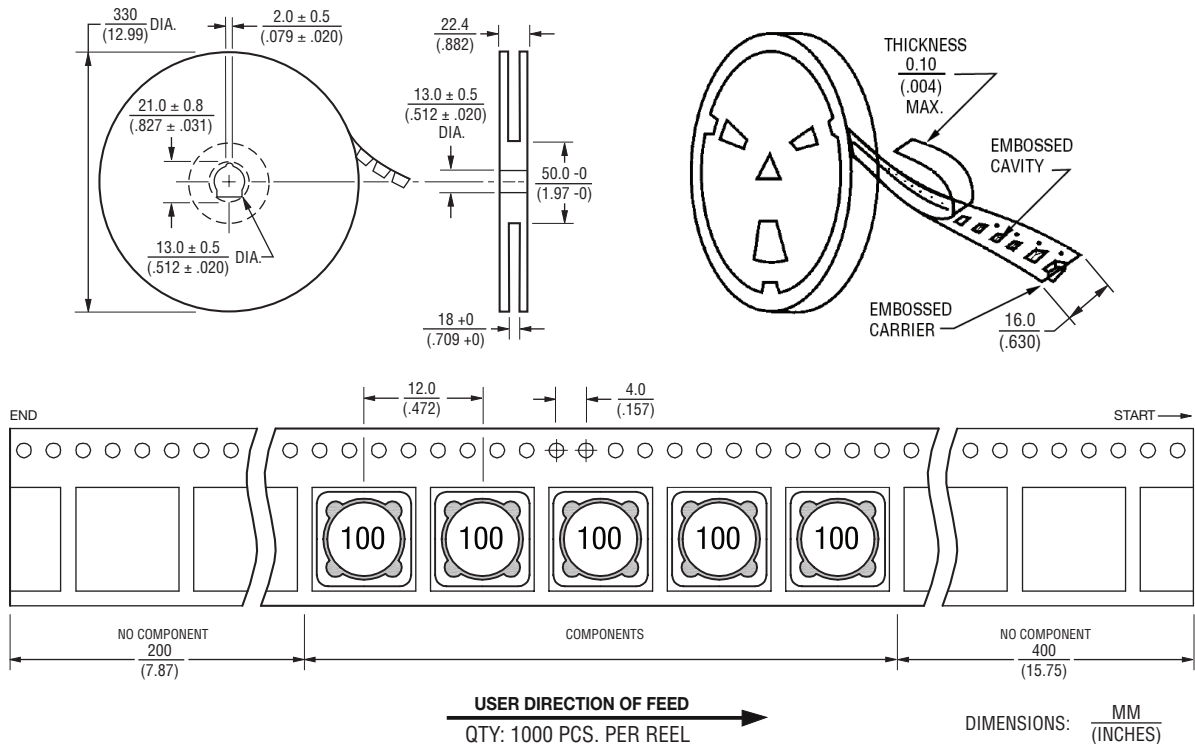
BOURNS®

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



REV. 01/24

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