



Features

- Shielded construction – low radiation
- Wide operating temperature range
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

- DC-DC converters
- Power supplies in automotive, consumer, industrial, and telecom electronics

SRR0745HA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

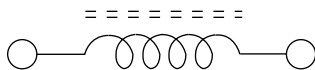
| Bourns Part Number | Inductance @ 1 KHz / 1 V | | DCR (Ω) Max. | I _{rms} (A) Typ. | I _{sat} (A) Typ. |
|--------------------|--------------------------|----------|--------------|---------------------------|---------------------------|
| | L (μH) | Tol. (%) | | | |
| SRR0745HA-100M | 10.0 | ±20 | 0.052 | 2.10 | 2.50 |
| SRR0745HA-120M | 12.0 | ±20 | 0.062 | 2.00 | 2.30 |
| SRR0745HA-150M | 15.0 | ±20 | 0.075 | 1.90 | 2.10 |
| SRR0745HA-180M | 18.0 | ±20 | 0.090 | 1.80 | 1.95 |
| SRR0745HA-220M | 22.0 | ±20 | 0.096 | 1.65 | 1.75 |
| SRR0745HA-270M | 27.0 | ±20 | 0.130 | 1.45 | 1.62 |
| SRR0745HA-330M | 33.0 | ±20 | 0.150 | 1.35 | 1.45 |
| SRR0745HA-390M | 39.0 | ±20 | 0.190 | 1.17 | 1.30 |
| SRR0745HA-470M | 47.0 | ±20 | 0.210 | 1.05 | 1.20 |
| SRR0745HA-560M | 56.0 | ±20 | 0.240 | 0.95 | 1.10 |
| SRR0745HA-680M | 68.0 | ±20 | 0.300 | 0.86 | 0.96 |
| SRR0745HA-820M | 82.0 | ±20 | 0.400 | 0.78 | 0.90 |
| SRR0745HA-101M | 100.0 | ±20 | 0.450 | 0.70 | 0.78 |
| SRR0745HA-121M | 120.0 | ±20 | 0.550 | 0.60 | 0.70 |
| SRR0745HA-151M | 150.0 | ±20 | 0.760 | 0.48 | 0.58 |
| SRR0745HA-181M | 180.0 | ±20 | 0.820 | 0.46 | 0.54 |
| SRR0745HA-221M | 220.0 | ±20 | 0.950 | 0.42 | 0.50 |
| SRR0745HA-271M | 270.0 | ±20 | 1.200 | 0.38 | 0.46 |
| SRR0745HA-331M | 330.0 | ±20 | 1.500 | 0.34 | 0.40 |
| SRR0745HA-391M | 390.0 | ±20 | 1.850 | 0.32 | 0.36 |
| SRR0745HA-471M | 470.0 | ±20 | 2.200 | 0.29 | 0.34 |
| SRR0745HA-561M | 560.0 | ±20 | 2.600 | 0.26 | 0.30 |
| SRR0745HA-681M | 680.0 | ±20 | 2.800 | 0.24 | 0.28 |
| SRR0745HA-821M | 820.0 | ±20 | 3.500 | 0.22 | 0.26 |
| SRR0745HA-102M | 1000.0 | ±20 | 4.100 | 0.20 | 0.24 |

How to Order

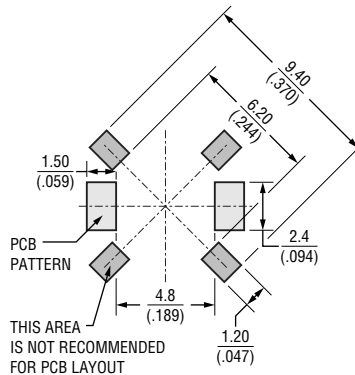
SRR0745HA - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



Recommended Layout



Additional Information

Click these links for more information:



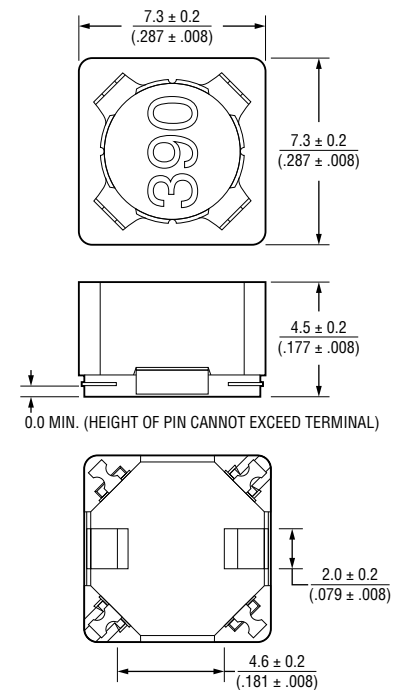
General Specifications

Operating Temperature -55 °C to +150 °C
(Temperature rise included)
Storage Temperature -55 °C to +150 °C
Temperature Rise 40 °C typ. at rated I_{rms}
Inductance Drop 25 % typ. at I_{sat}
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

Materials

Core Ferrite DR & RI
Wire Enameled copper
Terminal Finish Sn/Ag/Cu
Packaging 1000 pcs. per 13-inch reel

Product Dimensions



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



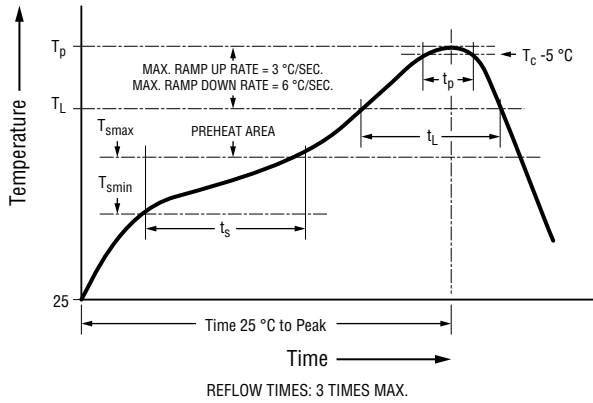
WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

* 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. 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.

SRR0745HA Series - Shielded Power Inductors



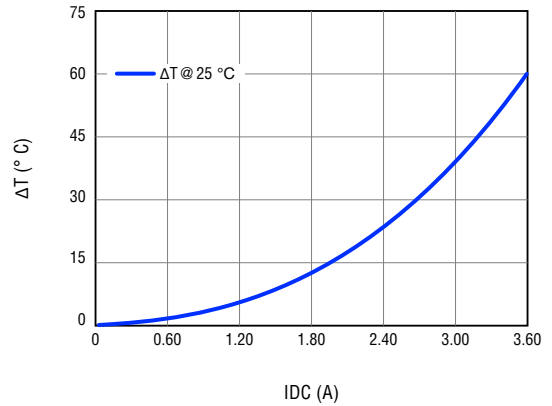
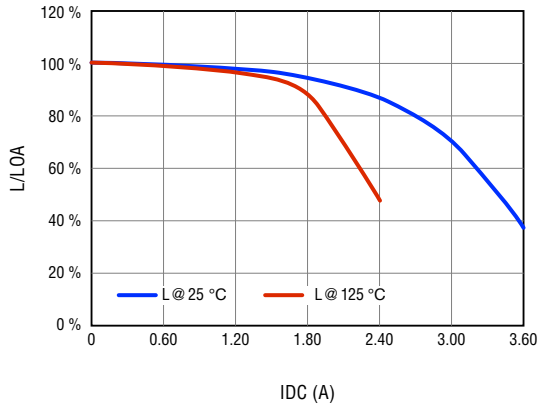
Soldering Profile



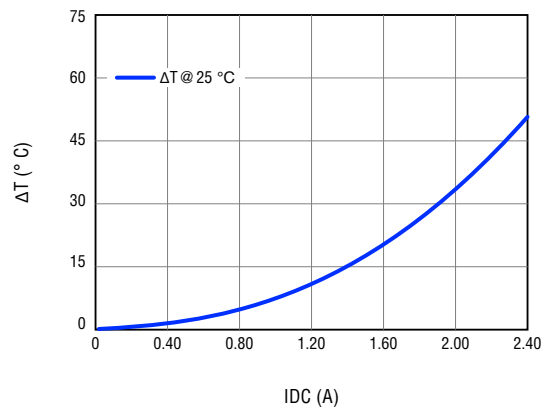
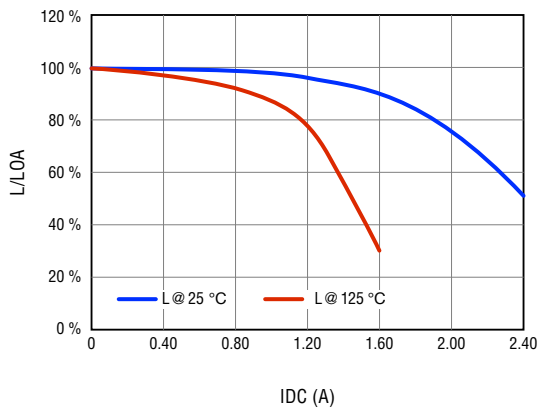
| Profile Feature | Pb Free Assembly |
|---|------------------------------------|
| Preheat <ul style="list-style-type: none"> - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time (t_s) from T_{smin} to T_{smax} | 150 °C 200 °C 60-120 seconds |
| Ramp-up Rate (T_L to T_p) | 3 °C/second max. |
| Liquidous temperature (T_L) Time (t_L) maintained above T_L | 217 °C 60-150 seconds |
| Peak package body temperature (T_p) | 250 °C |
| Time (t_p) at $T_c - 5$ °C (T_p should be equal to or less than T_c) | < 30 seconds |
| Ramp-Down Rate (T_p to T_L) | 6 °C/second max. |
| Time 25 °C to Peak Temperature | 8 minutes max. |

Typical Current Characteristics

SRR0745HA-100M



SRR0745HA-220M



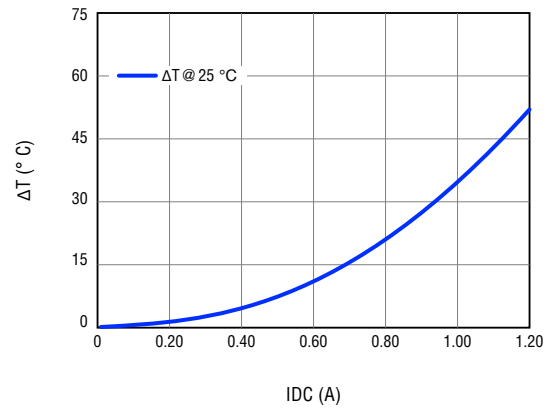
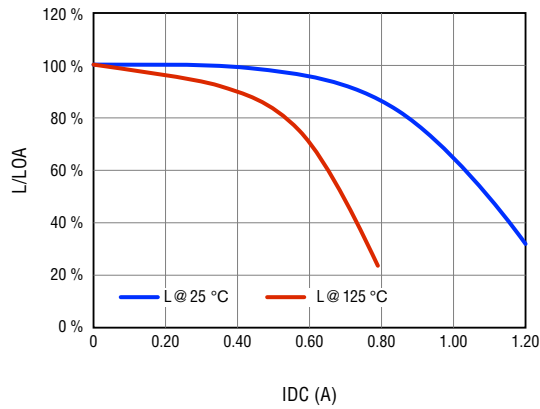
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SRR0745HA Series - Shielded Power Inductors

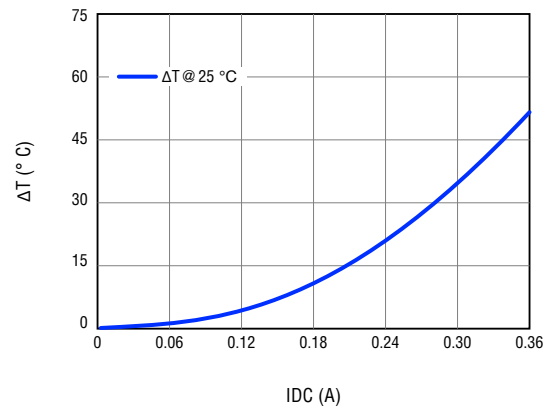
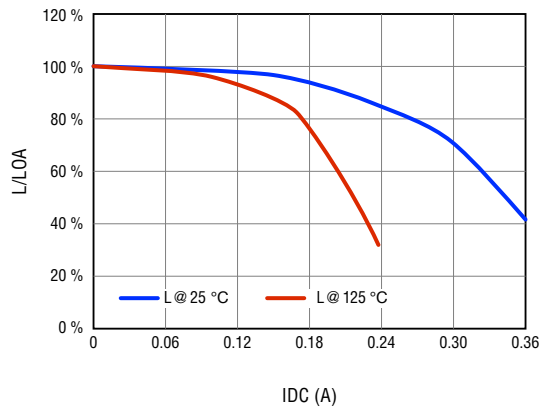
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Typical Current Characteristics (continued)

SRR0745HA-101M



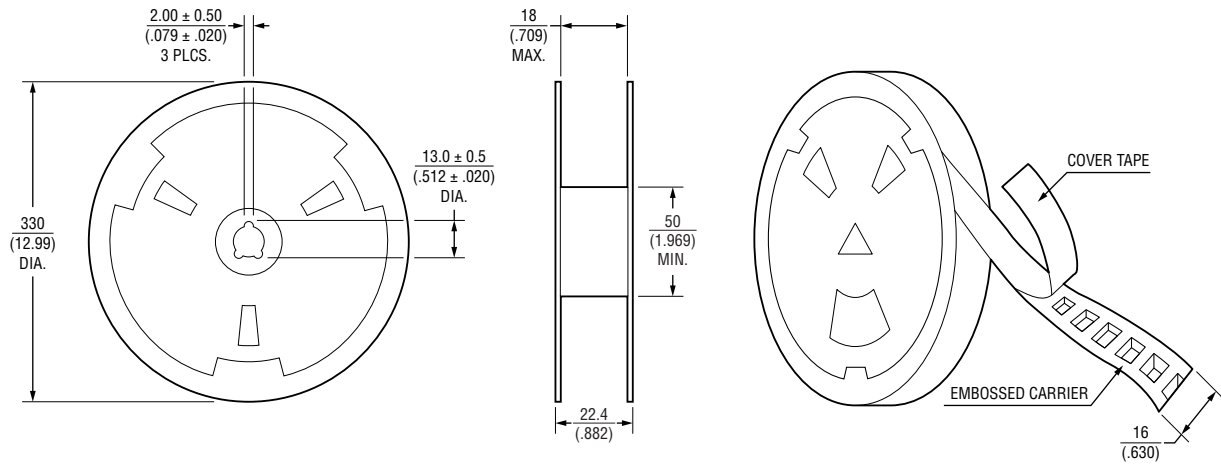
SRR0745HA-102M



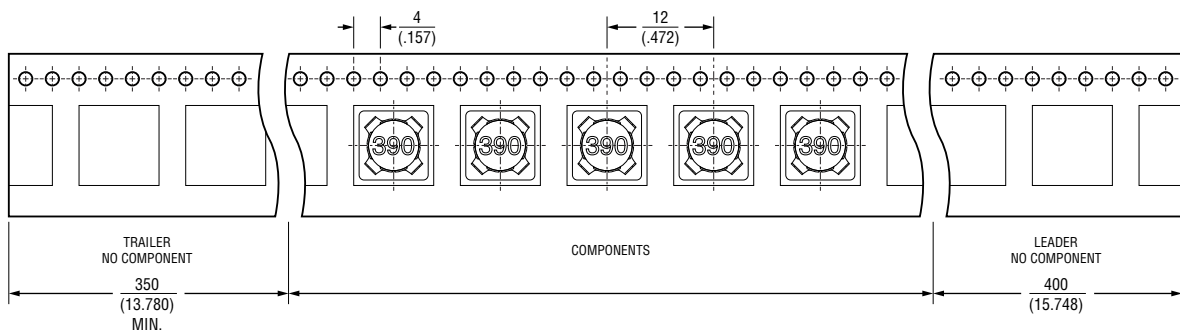
SRR0745HA Series - Shielded Power Inductors

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Packaging Specifications



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



USER DIRECTION OF FEED →
QTY: 1000 PCS PER REEL

BOURNS®

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REV. 12/23

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