



## 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

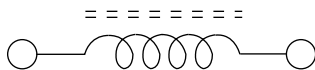
Bourns Part Number	Inductance @ 1 KHz / 1 V		DCR (Ω) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	Tol. (%)			
SRR0745HA-100M	10.0	±20	0.052	2.10	2.50
SRR0745HA-120M	12.0	±20	0.062	2.00	2.30
SRR0745HA-150M	15.0	±20	0.075	1.90	2.10
SRR0745HA-180M	18.0	±20	0.090	1.80	1.95
SRR0745HA-220M	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

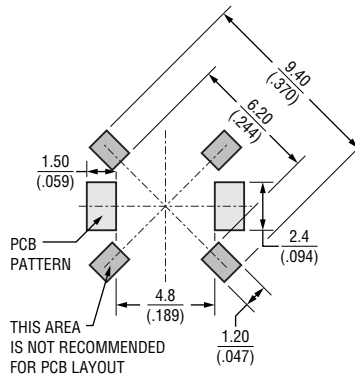
**SRR0745HA - 100M**

Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

### Electrical Schematic



### Recommended Layout



### Additional Information

Click these links for more information:



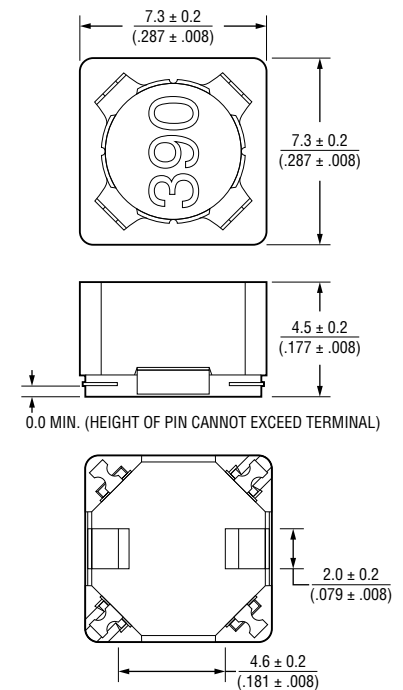
### General Specifications

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<sub>rms</sub>  
Inductance Drop ..... 25 % typ. at I<sub>sat</sub>  
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:  $\frac{\text{MM}}{\text{(INCHES)}}$



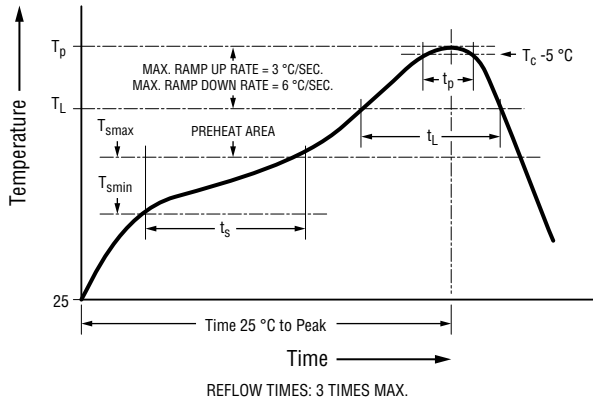
**WARNING Cancer and Reproductive Harm** [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* 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](http://www.bourns.com/docs/legal/disclaimer.pdf).

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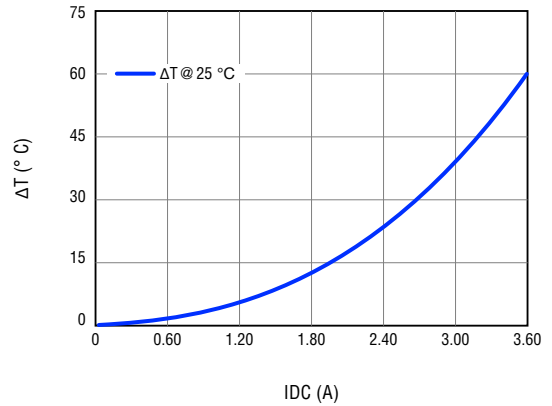
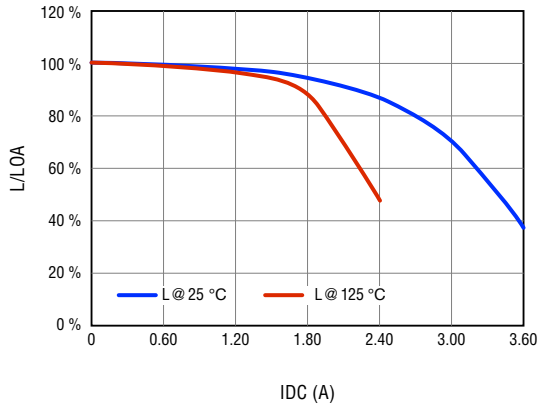
## Soldering Profile



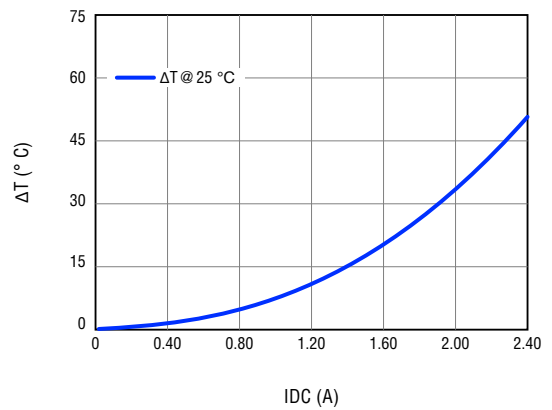
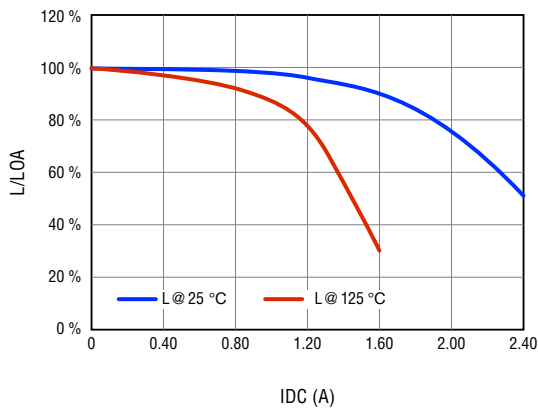
Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time (<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
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



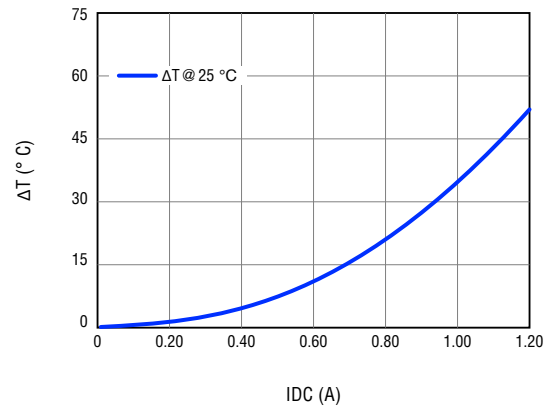
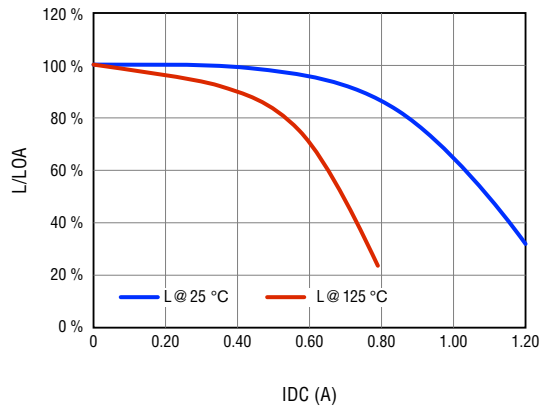
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# SRR0745HA Series - Shielded Power Inductors

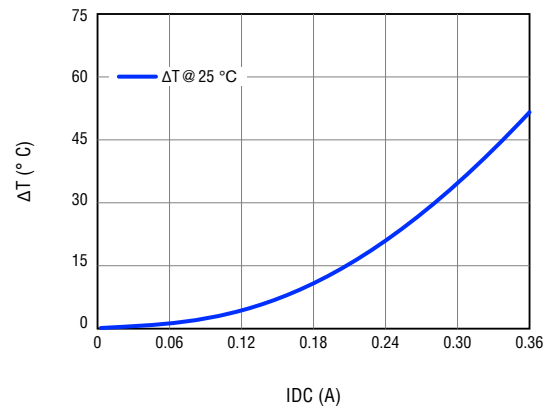
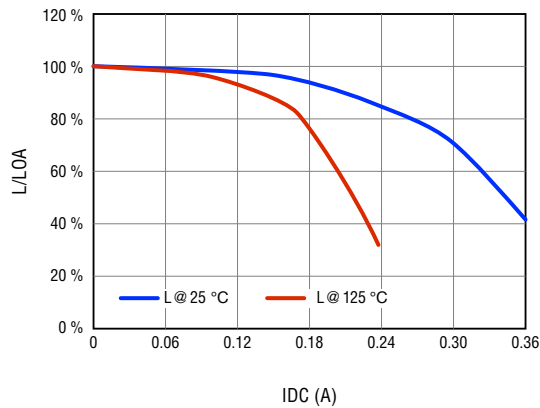
**BOURNS®**

## Typical Current Characteristics (continued)

### SRR0745HA-101M



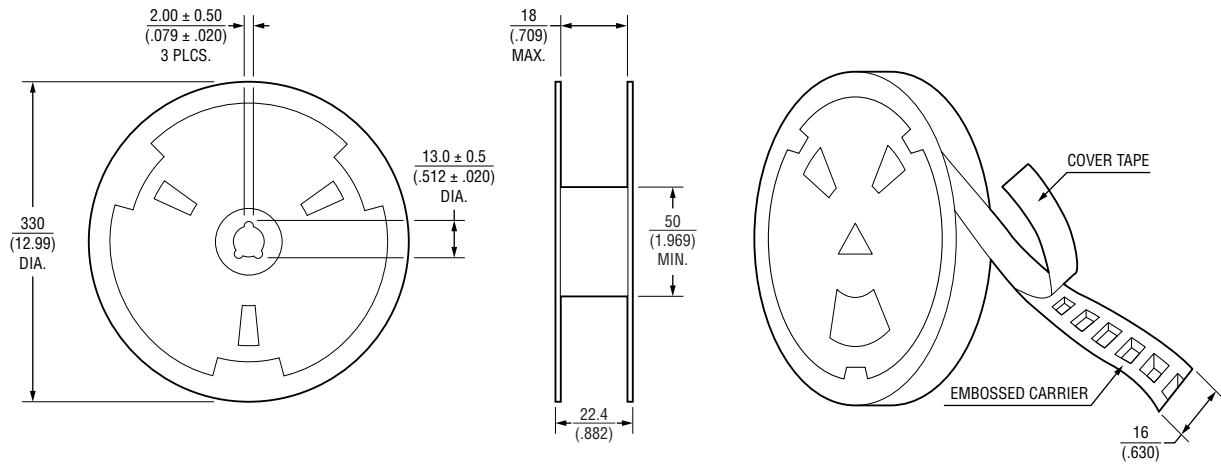
### SRR0745HA-102M



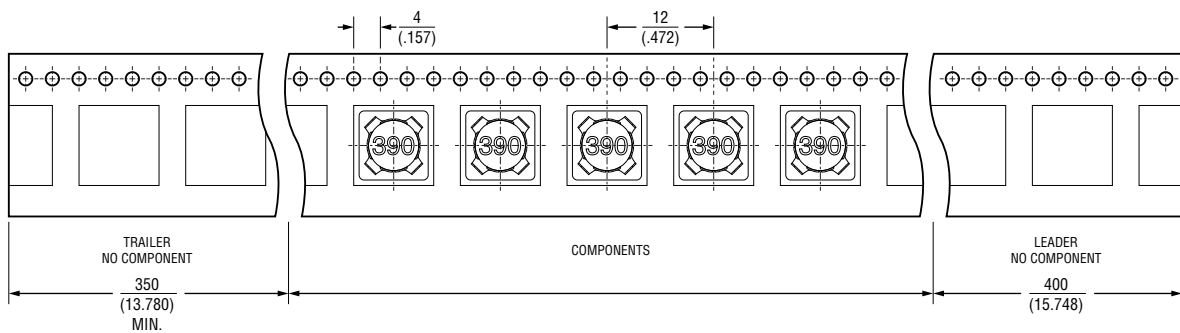
# SRR0745HA Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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



USER DIRECTION OF FEED →  
QTY: 1000 PCS PER REEL

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

The Americas: Tel: +1-951 781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

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REV. 12/23

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