



## 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

## SRR0735HA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

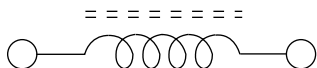
Bourns Part Number	Inductance @ 1 KHz / 1 V		DCR (Ω) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	Tol. (%)			
SRR0735HA-100M	10.0	±20	0.072	2.10	1.85
SRR0735HA-120M	12.0	±20	0.085	1.90	1.60
SRR0735HA-150M	15.0	±20	0.105	1.60	1.52
SRR0735HA-180M	18.0	±20	0.125	1.40	1.40
SRR0735HA-220M	22.0	±20	0.160	1.20	1.28
SRR0735HA-270M	27.0	±20	0.185	1.10	1.15
SRR0735HA-330M	33.0	±20	0.220	1.00	1.04
SRR0735HA-390M	39.0	±20	0.250	0.95	0.96
SRR0735HA-470M	47.0	±20	0.320	0.85	0.88
SRR0735HA-560M	56.0	±20	0.350	0.78	0.80
SRR0735HA-680M	68.0	±20	0.400	0.72	0.74
SRR0735HA-820M	82.0	±20	0.480	0.63	0.65
SRR0735HA-101M	100.0	±20	0.630	0.54	0.60
SRR0735HA-121M	120.0	±20	0.720	0.53	0.55
SRR0735HA-151M	150.0	±20	0.930	0.47	0.48
SRR0735HA-181M	180.0	±20	1.150	0.43	0.45
SRR0735HA-221M	220.0	±20	1.320	0.40	0.42
SRR0735HA-271M	270.0	±20	1.700	0.37	0.38
SRR0735HA-331M	330.0	±20	2.000	0.33	0.33
SRR0735HA-391M	390.0	±20	2.300	0.30	0.30
SRR0735HA-471M	470.0	±20	2.800	0.26	0.27
SRR0735HA-561M	560.0	±20	3.500	0.23	0.25
SRR0735HA-681M	680.0	±20	4.000	0.21	0.22
SRR0735HA-821M	820.0	±20	5.200	0.19	0.21
SRR0735HA-102M	1000.0	±20	5.800	0.17	0.18

### How to Order

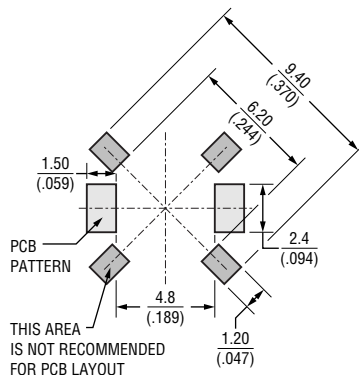
**SRR0735HA - 100M**

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

### Electrical Schematic



### Recommended Layout



### Additional Information

Click these links for more information:



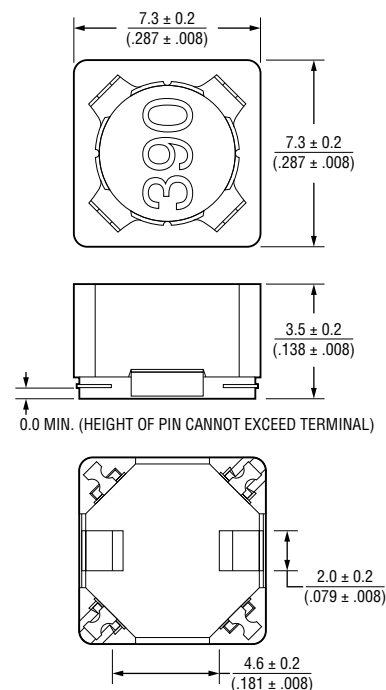
### General Specifications

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 ..... 1500 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.

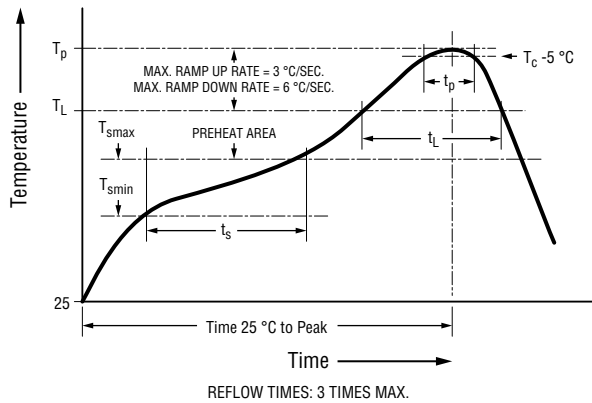
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRR0735HA Series - Shielded Power Inductors

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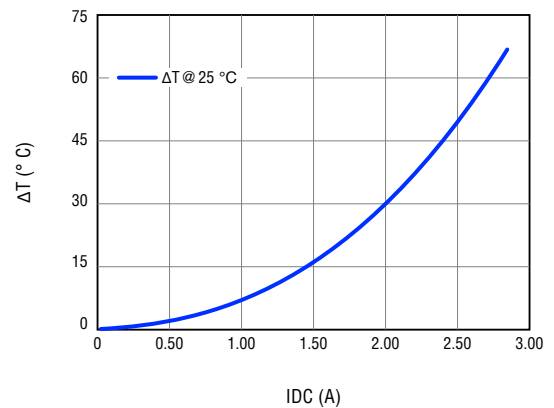
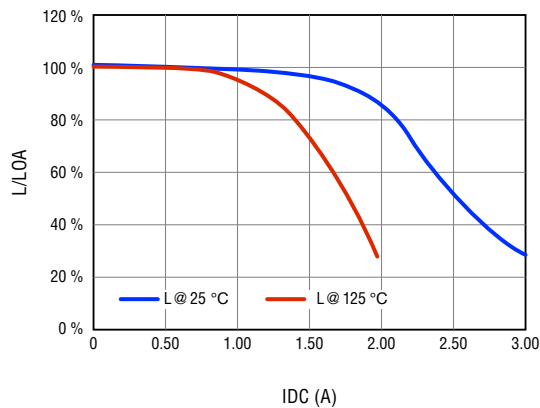
## Soldering Profile



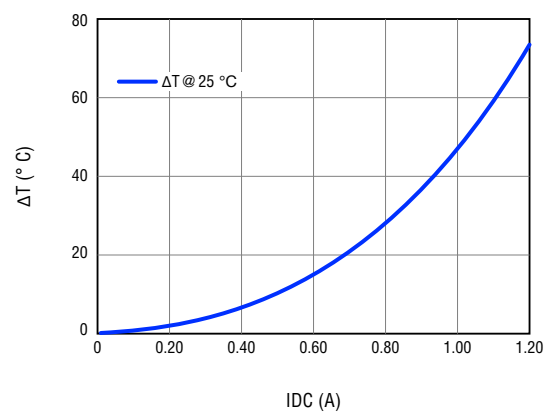
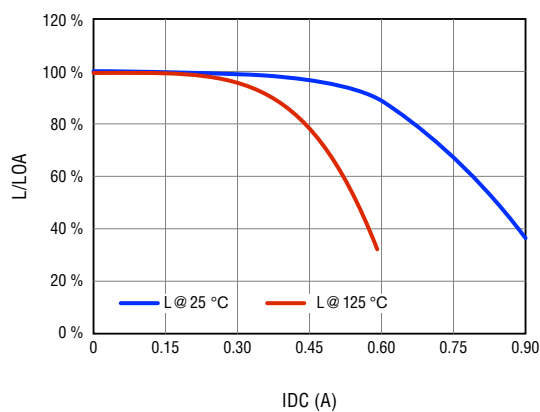
Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time(<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
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 $T_c - 5^\circ\text{C}$ ( $T_p$ 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

### SRR0735HA-100M



### SRR0735HA-101M



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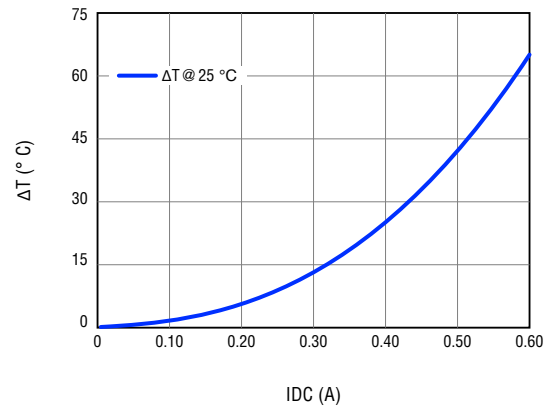
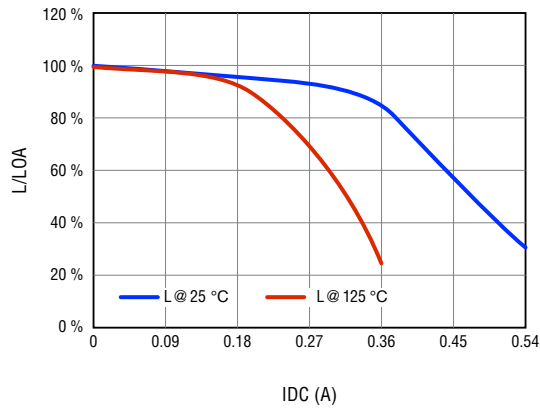
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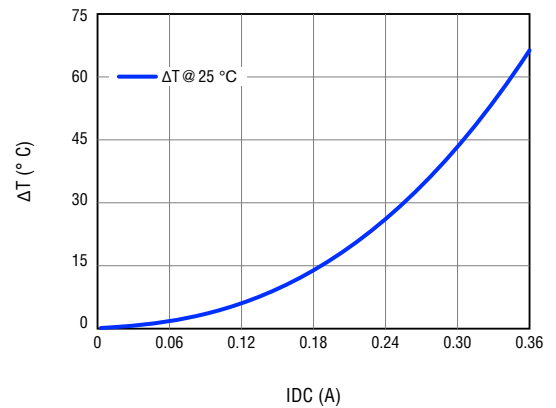
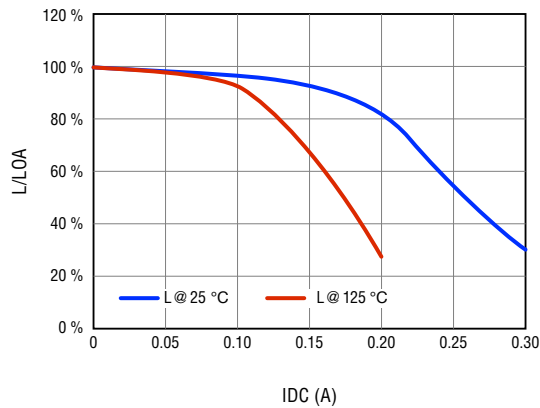
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### Typical Current Characteristics (continued)

#### SRR0735HA-331M



#### SRR0735HA-102M



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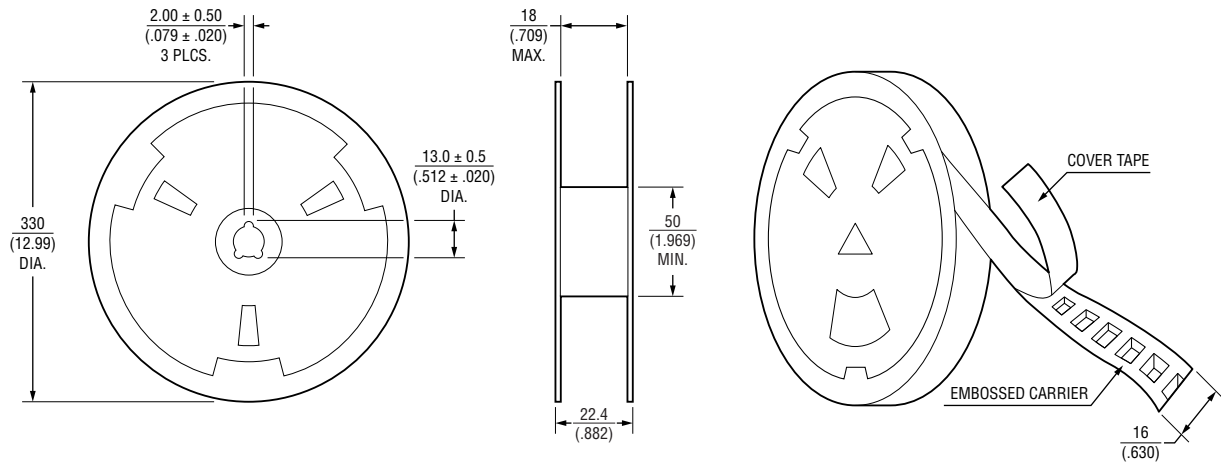
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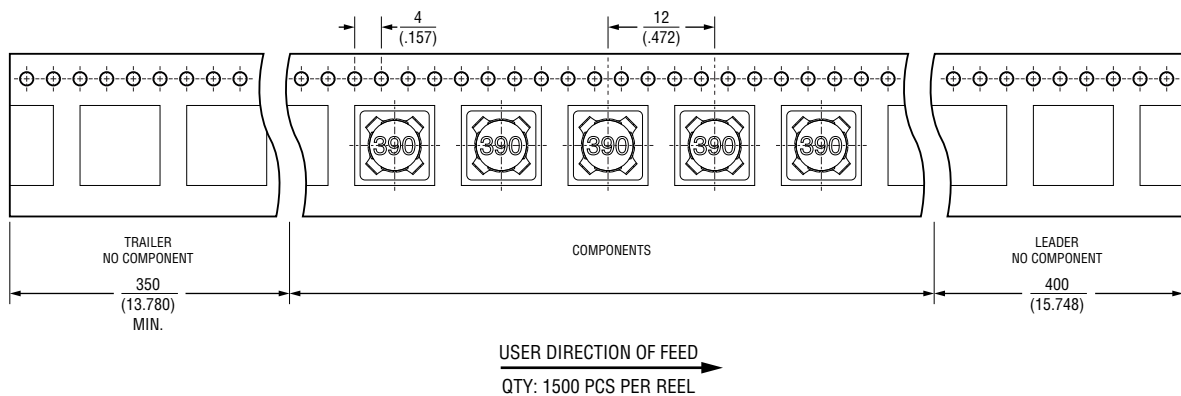
## SRR0735HA Series - Shielded Power Inductors

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### Packaging Specifications



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



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