



## Features

- Shielded construction
- Inductance range: 1 to 100  $\mu$ H
- Heating current up to 3.6 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## Applications

- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

# SRR3818A Series - Shielded Power Inductors

## Electrical Specifications @ 25 °C

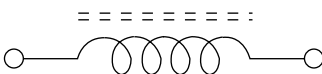
Bourns Part Number	Inductance @ 100 kHz/0.1 V		SRF (MHz) Typ.	DCR (m $\Omega$ )		I rms <sup>1</sup> (A) Typ.	I rms <sup>2</sup> (A) Typ.	I sat (A)
	L ( $\mu$ H)	Tol. (%)		Typ.	Max.			
SRR3818A-1R0Y	1.0	$\pm 30$	165	27.5	37	2.75	3.6	2.1
SRR3818A-1R5Y	1.5	$\pm 30$	125	33	47	2.5	3.1	1.6
SRR3818A-2R2Y	2.2	$\pm 30$	95	45.5	60	2	2.6	1.4
SRR3818A-2R7Y	2.7	$\pm 30$	90	49.5	65	1.9	2.5	1.3
SRR3818A-3R3Y	3.3	$\pm 30$	75	64.5	85	1.7	2.1	1.15
SRR3818A-3R9Y	3.9	$\pm 30$	70	80	105	1.6	2	1.05
SRR3818A-4R7Y	4.7	$\pm 30$	60	90	120	1.5	1.9	0.95
SRR3818A-6R8Y	6.8	$\pm 30$	50	125	160	1.25	1.6	0.8
SRR3818A-100M	10	$\pm 20$	40	180	235	1	1.3	0.65
SRR3818A-150M	15	$\pm 20$	30	260	340	0.8	1.05	0.55
SRR3818A-220M	22	$\pm 20$	25	395	500	0.65	0.8	0.43
SRR3818A-330M	33	$\pm 20$	20	590	740	0.5	0.65	0.34
SRR3818A-470M	47	$\pm 20$	15	825	1030	0.45	0.56	0.3
SRR3818A-680M	68	$\pm 20$	13	1280	1600	0.38	0.46	0.24
SRR3818A-101M	100	$\pm 20$	11	2040	2600	0.28	0.34	0.2

## How to Order

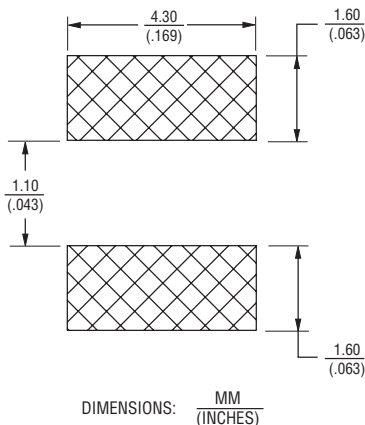
**SRR3818A - 1R0Y**

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

## Electrical Schematic



## Recommended Layout



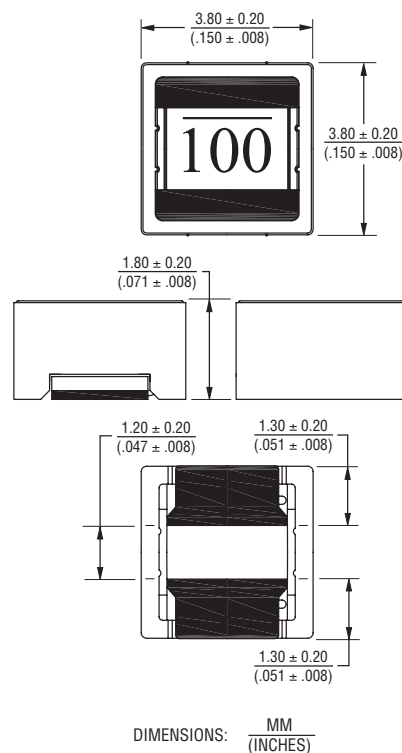
## General Specifications

Operating Temp..... -40 °C to +150 °C  
(Temperature rise included)  
Storage Temperature .. -40 °C to +150 °C  
Temperature Rise  
..... 20 °C typ. at rated I rms<sup>1</sup>  
..... 40 °C typ. at rated I rms<sup>2</sup>  
Rated Current  
..... Inductance drops 35 % at I sat  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

## Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging ..... 1000 pcs. per 7-inch reel

## Product Dimensions



\*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.

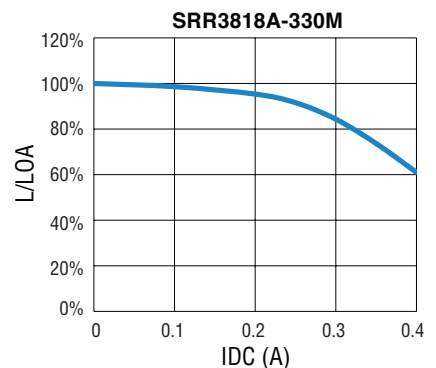
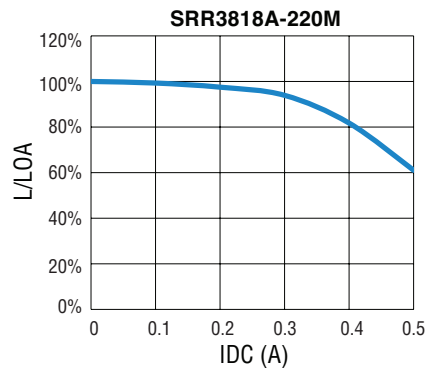
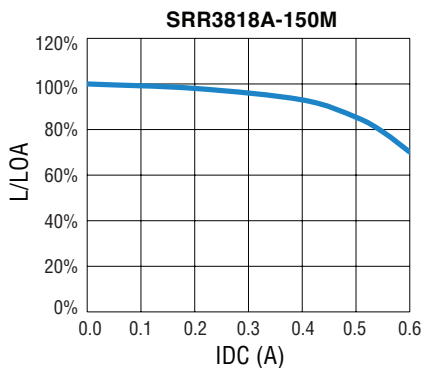
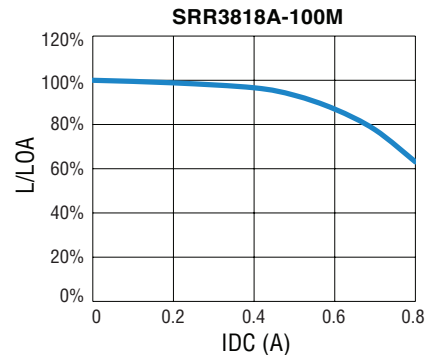
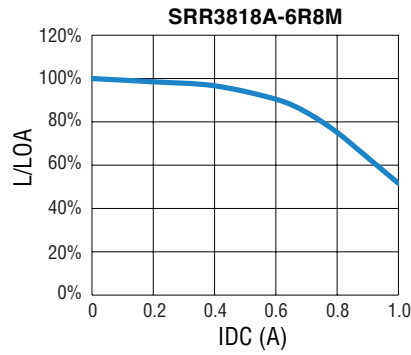
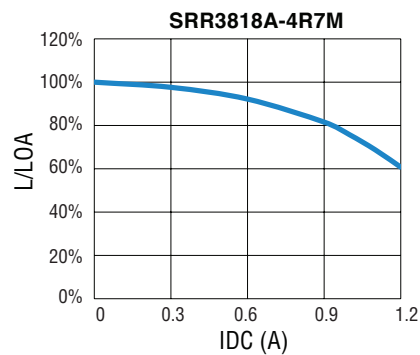
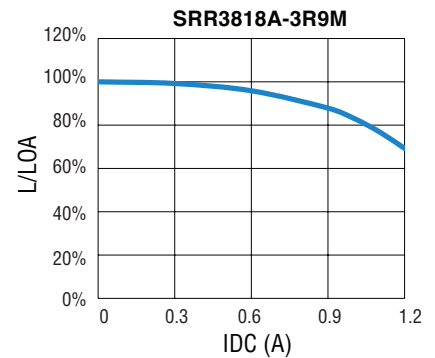
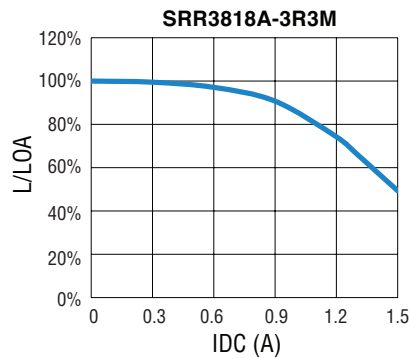
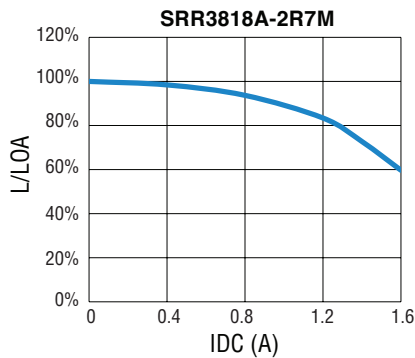
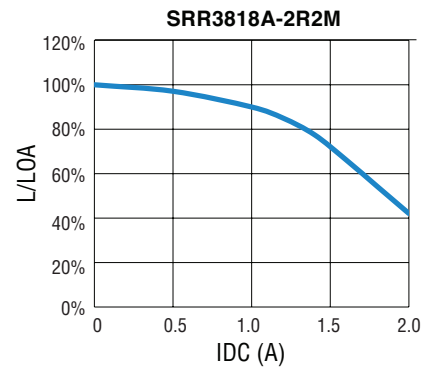
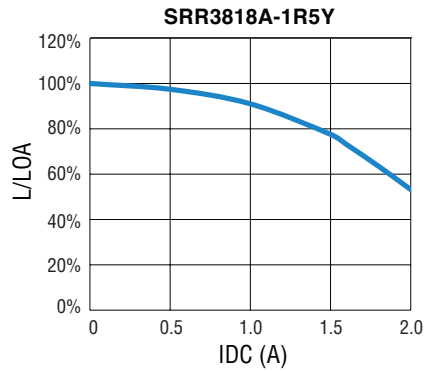
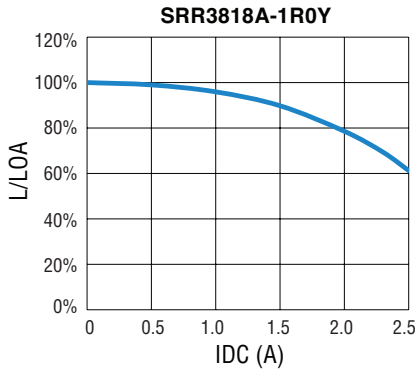
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

# SRR3818A Series - Shielded Power Inductors

**BOURNS®**

## Inductance vs. IDC



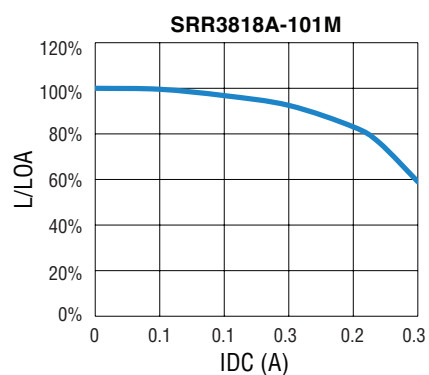
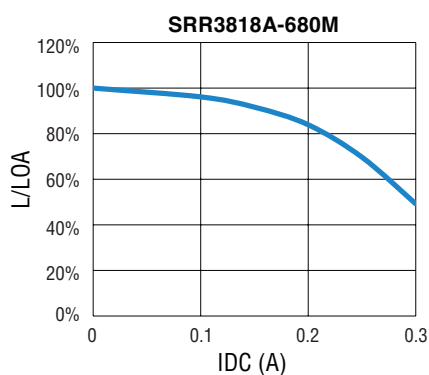
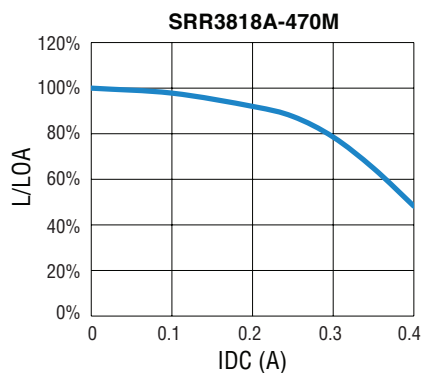
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

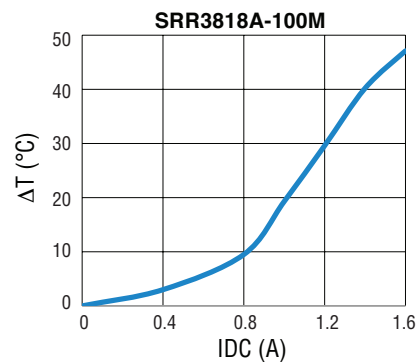
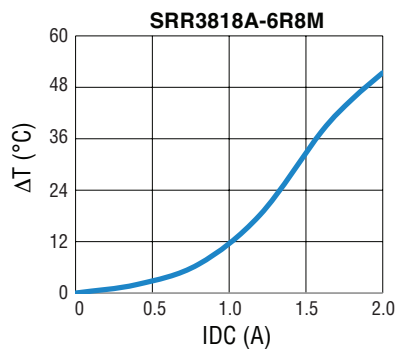
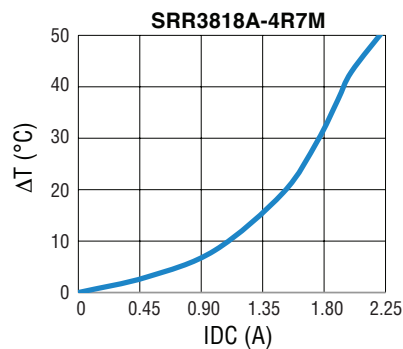
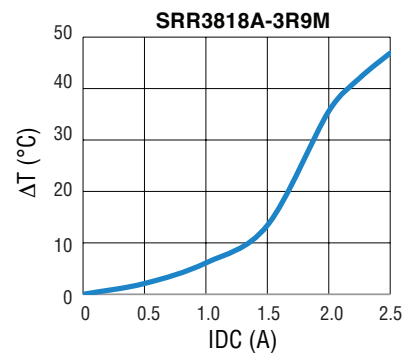
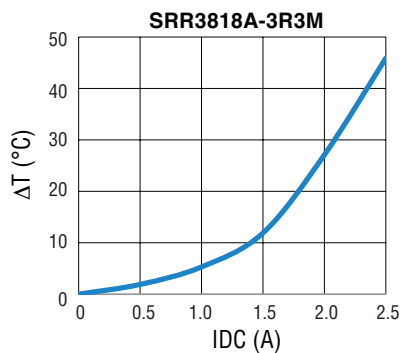
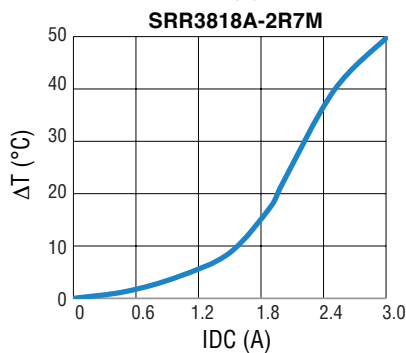
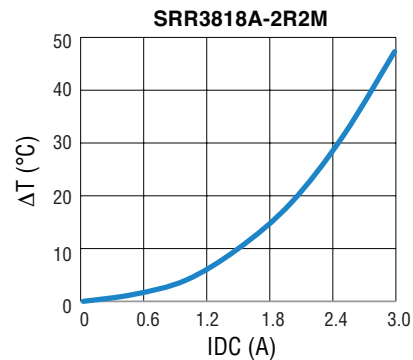
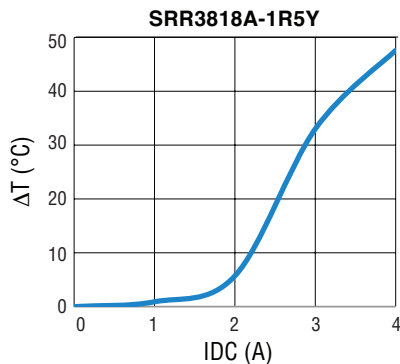
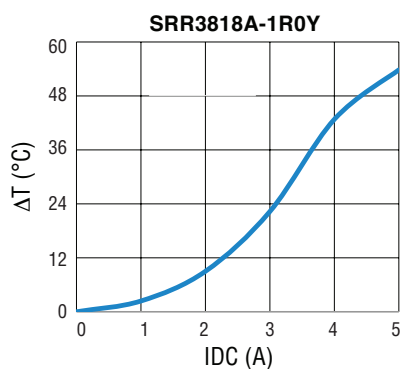
# SRR3818A Series - Shielded Power Inductors

**BOURNS®**

## Inductance vs. IDC (Continued)



## Temperature vs. IDC



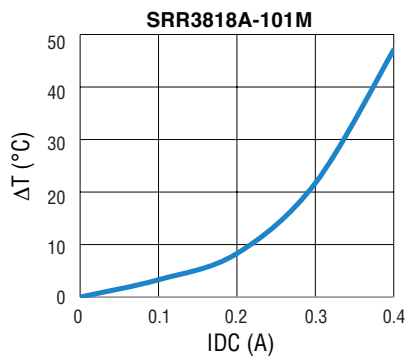
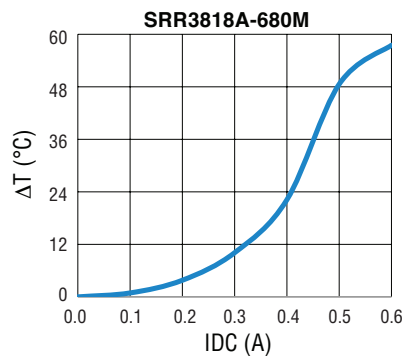
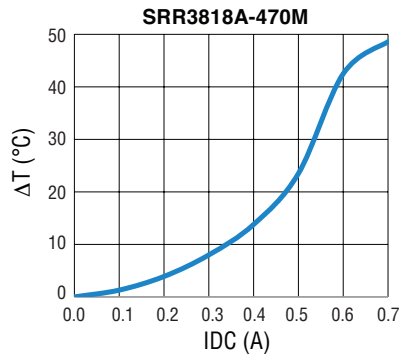
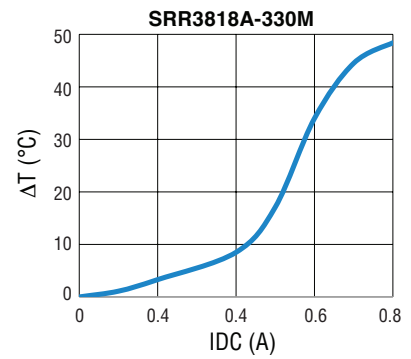
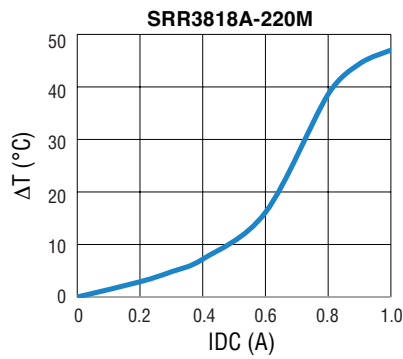
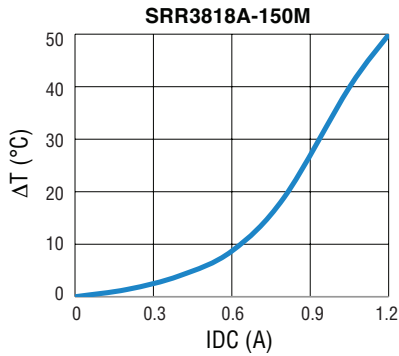
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

## SRR3818A Series - Shielded Power Inductors

**BOURNS®**

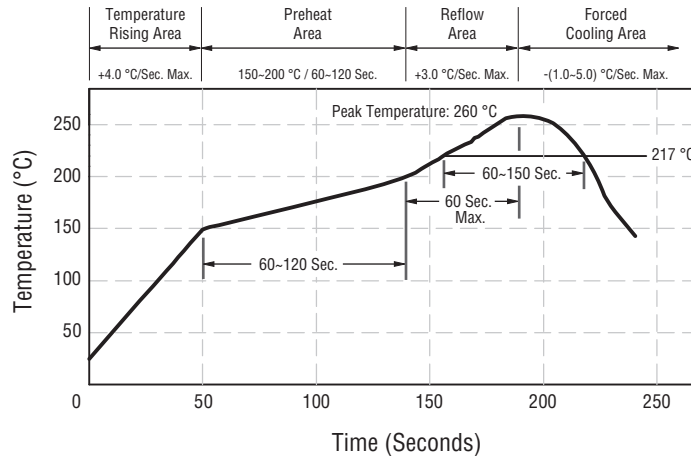
### Temperature vs. IDC (Continued)



# SRR3818A Series - Shielded Power Inductors

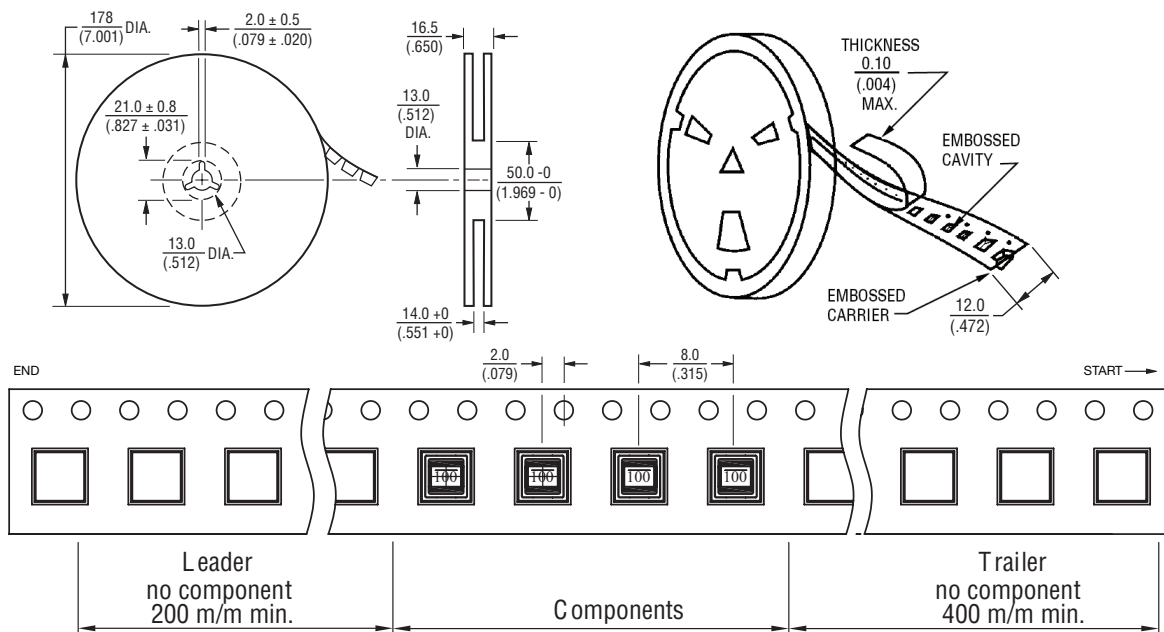
**BOURNS®**

## Soldering Profile



Peak Temperature: 260 °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: 1000 PCS. PER REEL

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