



## Features

- Shielded construction
- Inductance range: 1 to 47  $\mu\text{H}$
- Heating current up to 5.1 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## SRR4818A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

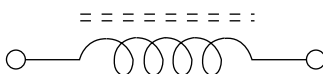
| Bourns<br>Part Number | Inductance @<br>100 kHz/0.1 V |          | SRF<br>(MHz)<br>Typ. | DCR (m $\Omega$ ) |       | I <sub>rms</sub> <sup>1</sup><br>(A)<br>Typ. | I <sub>rms</sub> <sup>2</sup><br>(A)<br>Typ. | I <sub>sat</sub><br>(A)<br>Typ. |
|-----------------------|-------------------------------|----------|----------------------|-------------------|-------|----------------------------------------------|----------------------------------------------|---------------------------------|
|                       | L ( $\mu\text{H}$ )           | Tol. (%) |                      | Typ.              | Max.  |                                              |                                              |                                 |
| SRR4818A-1R0Y         | 1.0                           | ± 30     | 140                  | 19.2              | 25.0  | 4.00                                         | 5.10                                         | 3.60                            |
| SRR4818A-1R5Y         | 1.5                           | ± 30     | 105                  | 25.2              | 35.0  | 3.75                                         | 4.70                                         | 3.00                            |
| SRR4818A-2R2Y         | 2.2                           | ± 30     | 90                   | 33.7              | 45.0  | 2.70                                         | 3.50                                         | 2.43                            |
| SRR4818A-3R3Y         | 3.3                           | ± 30     | 70                   | 42.8              | 55.0  | 2.50                                         | 3.10                                         | 2.10                            |
| SRR4818A-3R9Y         | 3.9                           | ± 30     | 65                   | 54.5              | 70.0  | 2.20                                         | 2.70                                         | 1.90                            |
| SRR4818A-4R7Y         | 4.7                           | ± 30     | 55                   | 59.4              | 80.0  | 2.00                                         | 2.60                                         | 1.50                            |
| SRR4818A-5R6Y         | 5.6                           | ± 30     | 50                   | 74.3              | 90.0  | 1.75                                         | 2.30                                         | 1.35                            |
| SRR4818A-6R8Y         | 6.8                           | ± 30     | 45                   | 82.1              | 100.0 | 1.65                                         | 2.20                                         | 1.25                            |
| SRR4818A-8R2Y         | 8.2                           | ± 30     | 43                   | 97.7              | 130.0 | 1.55                                         | 1.90                                         | 1.15                            |
| SRR4818A-100M         | 10                            | ± 20     | 40                   | 109.8             | 140.0 | 1.45                                         | 1.80                                         | 1.05                            |
| SRR4818A-120M         | 12                            | ± 20     | 37                   | 132.2             | 170.0 | 1.30                                         | 1.60                                         | 0.95                            |
| SRR4818A-150M         | 15                            | ± 20     | 30                   | 176.7             | 220.0 | 1.25                                         | 1.50                                         | 0.87                            |
| SRR4818A-180M         | 18                            | ± 20     | 28                   | 214.8             | 280.0 | 1.10                                         | 1.40                                         | 0.79                            |
| SRR4818A-220M         | 22                            | ± 20     | 25                   | 280.3             | 360.0 | 1.00                                         | 1.25                                         | 0.72                            |
| SRR4818A-270M         | 27                            | ± 20     | 22                   | 317.6             | 400.0 | 0.90                                         | 1.15                                         | 0.63                            |
| SRR4818A-330M         | 33                            | ± 20     | 20                   | 399.1             | 500.0 | 0.70                                         | 0.90                                         | 0.56                            |
| SRR4818A-390M         | 39                            | ± 20     | 17                   | 439.3             | 540.0 | 0.63                                         | 0.80                                         | 0.53                            |
| SRR4818A-470M         | 47                            | ± 20     | 16                   | 504.1             | 630.0 | 0.60                                         | 0.75                                         | 0.47                            |

### How to Order

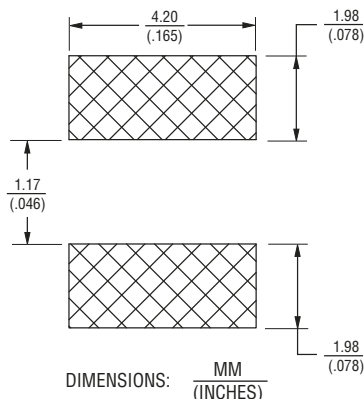
**SRR4818A - 1R0Y**

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

### Electrical Schematic



### Recommended Layout



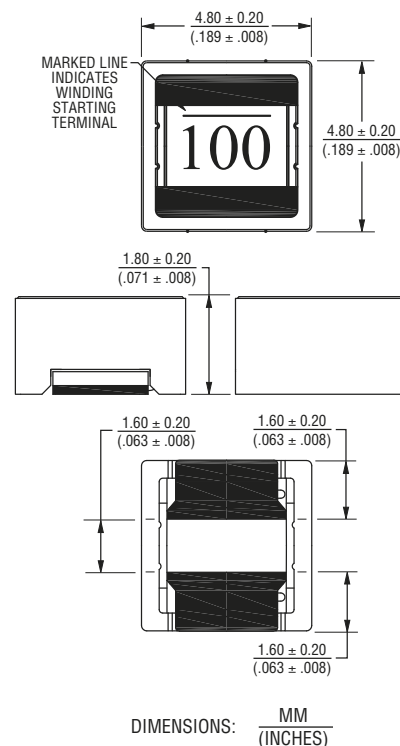
### General Specifications

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<sub>rms</sub><sup>1</sup>  
..... 40 °C typ. at rated I<sub>rms</sub><sup>2</sup>  
Rated Current  
..... Inductance drops 35 % at I<sub>sat</sub>  
Moisture Sensitivity Level..... 1  
ESD Classification (HBM)..... N/A

### Materials

Core..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging..... 800 pcs. per 7-inch reel

### Product Dimensions



**BOURNS®**

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#### Europe:

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#### The Americas:

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**WARNING Cancer and Reproductive Harm**

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\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

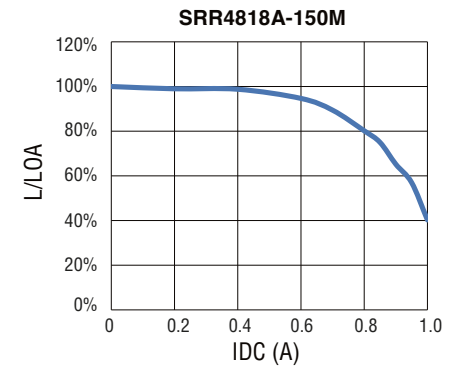
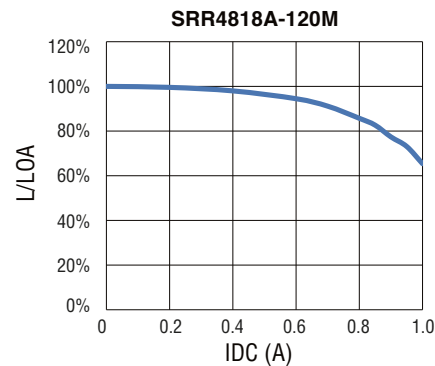
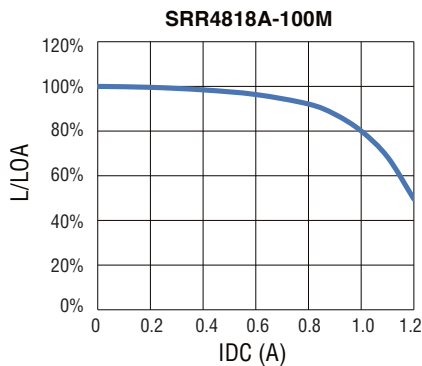
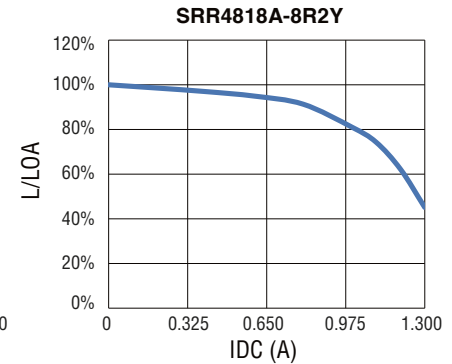
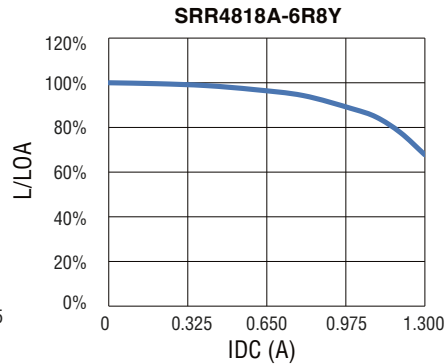
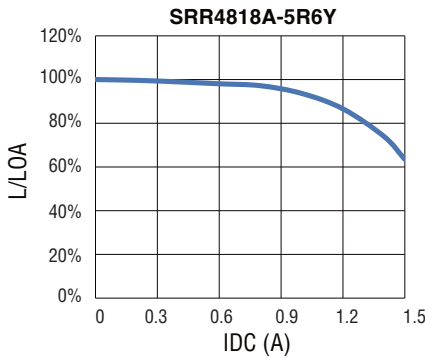
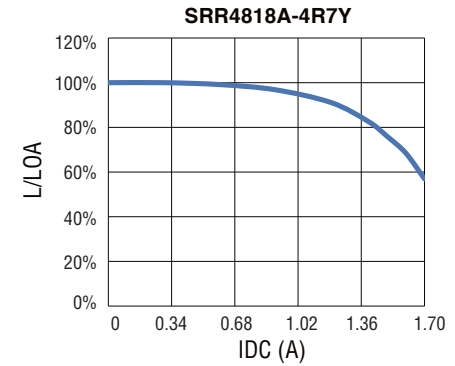
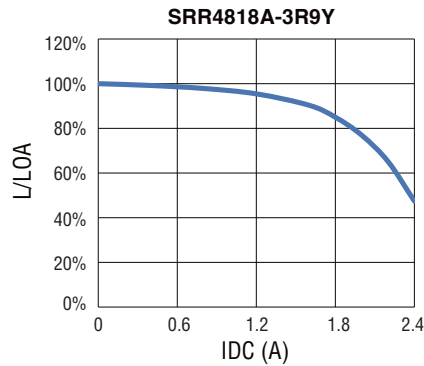
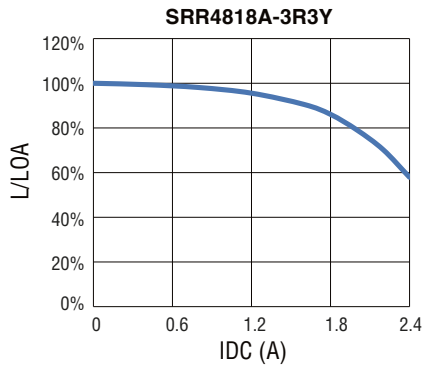
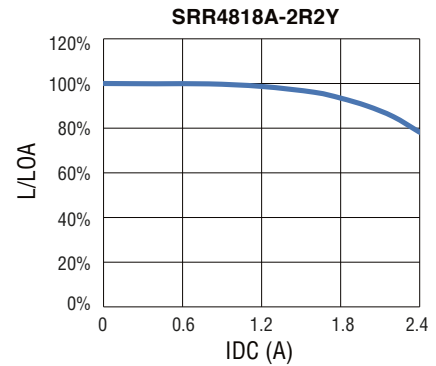
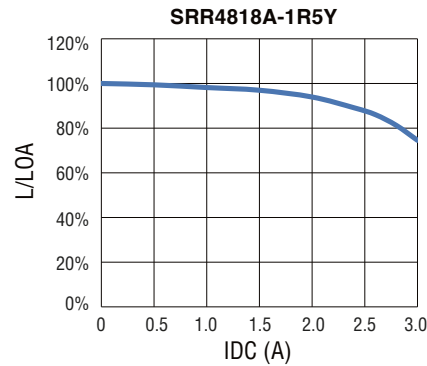
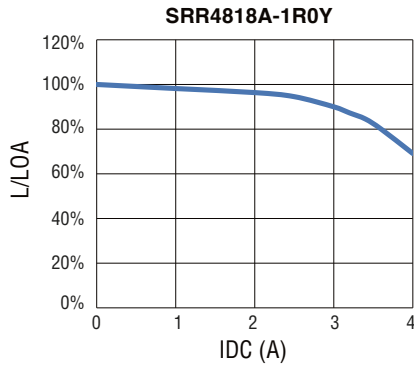
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRR4818A Series - Shielded Power Inductors

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## Inductance vs. IDC



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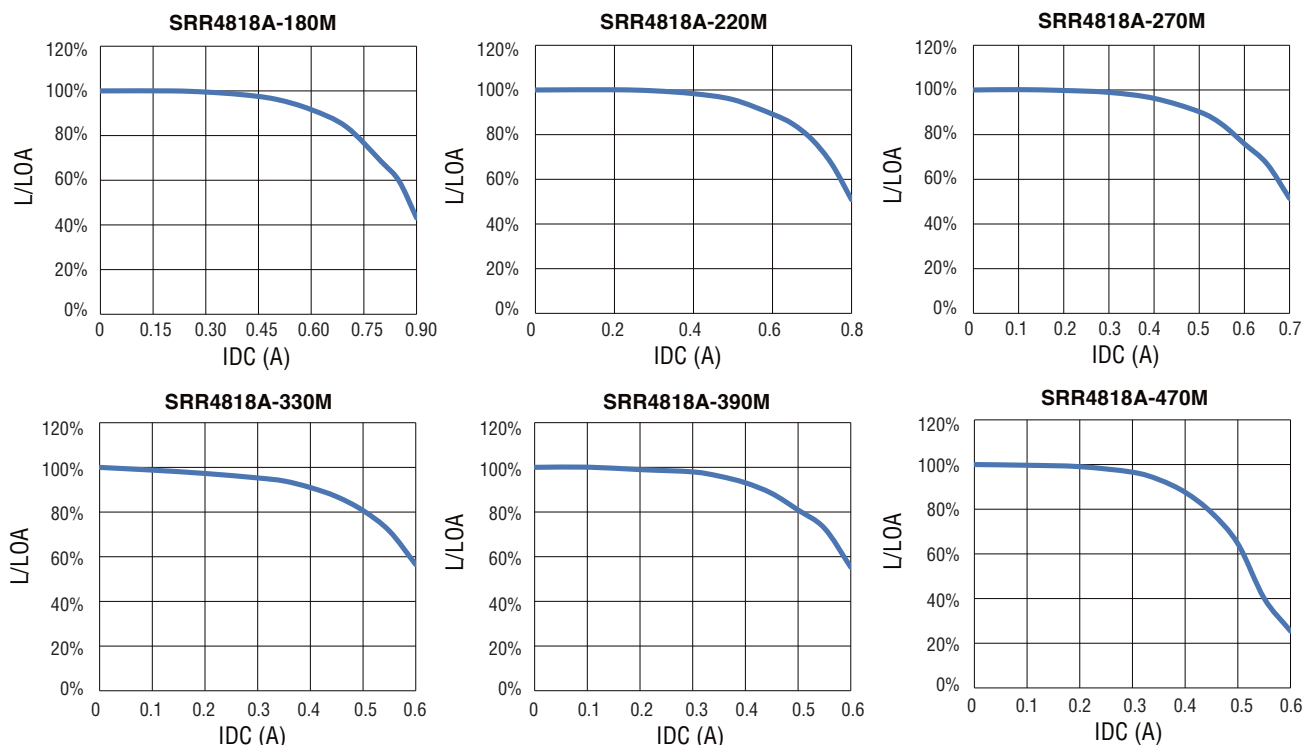
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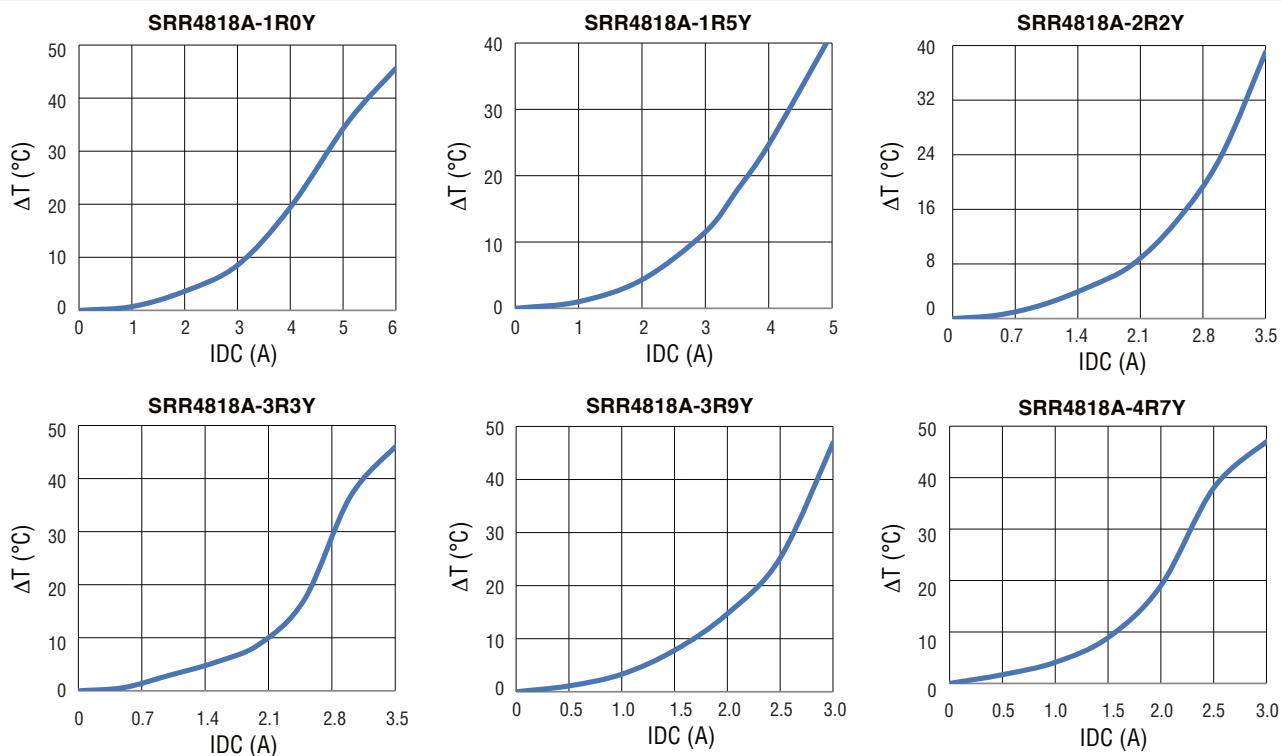
# SRR4818A Series - Shielded Power Inductors

**BOURNS®**

## Inductance vs. IDC (Continued)



## Temperature vs. IDC



Specifications are subject to change without notice.

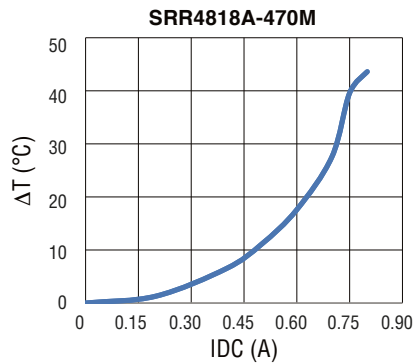
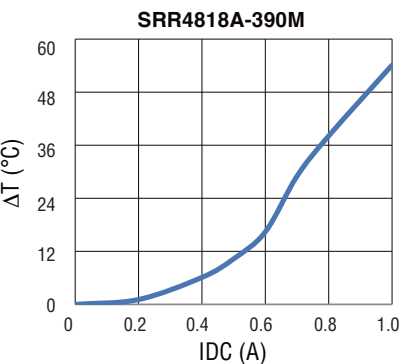
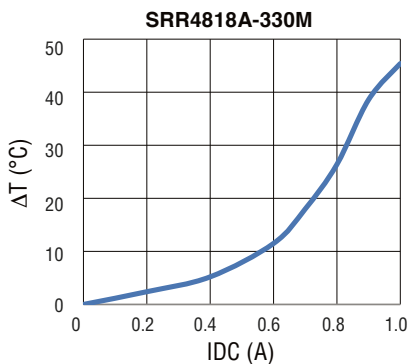
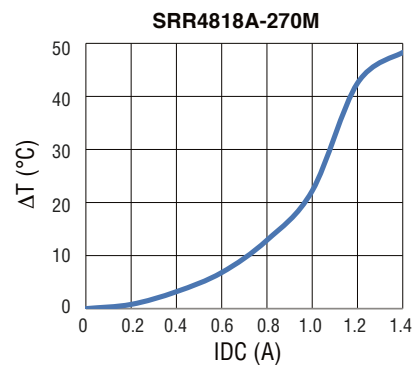
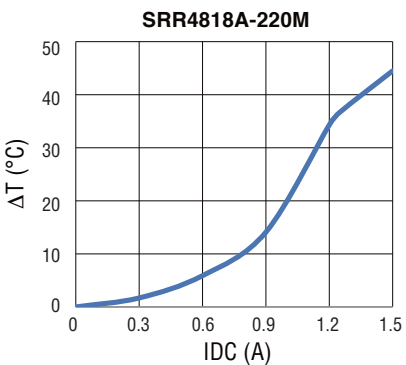
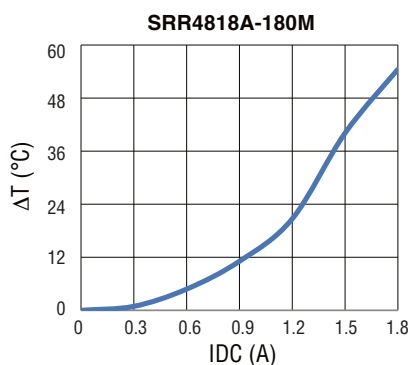
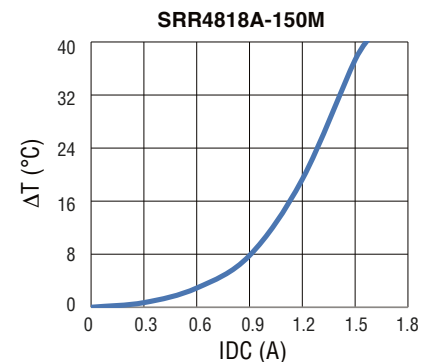
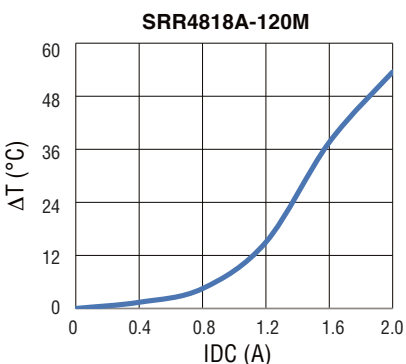
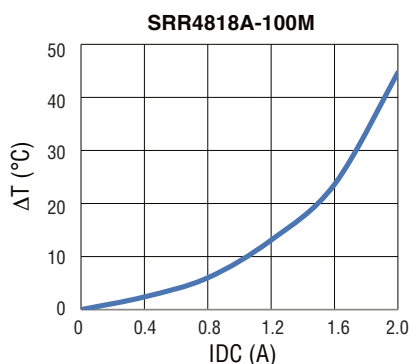
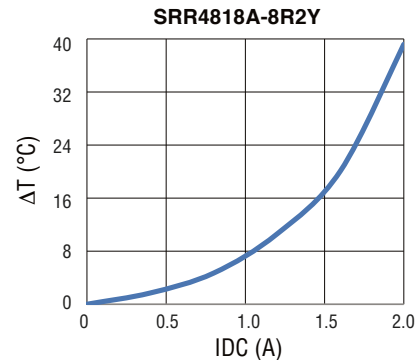
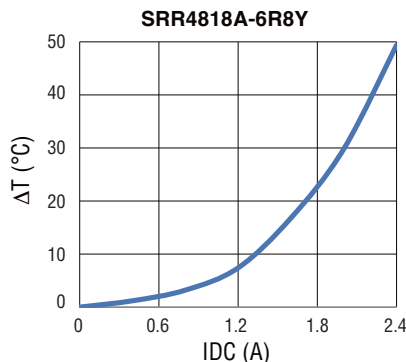
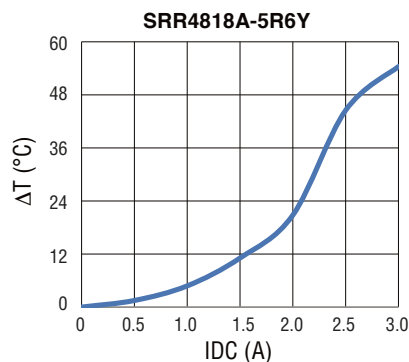
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# SRR4818A Series - Shielded Power Inductors

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## Temperature vs. IDC (Continued)



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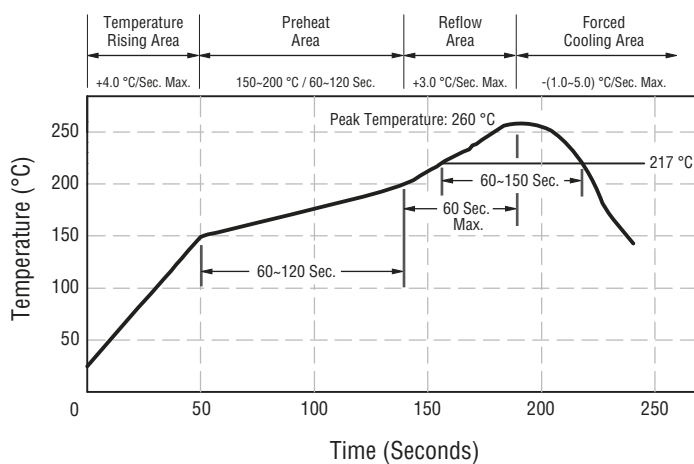
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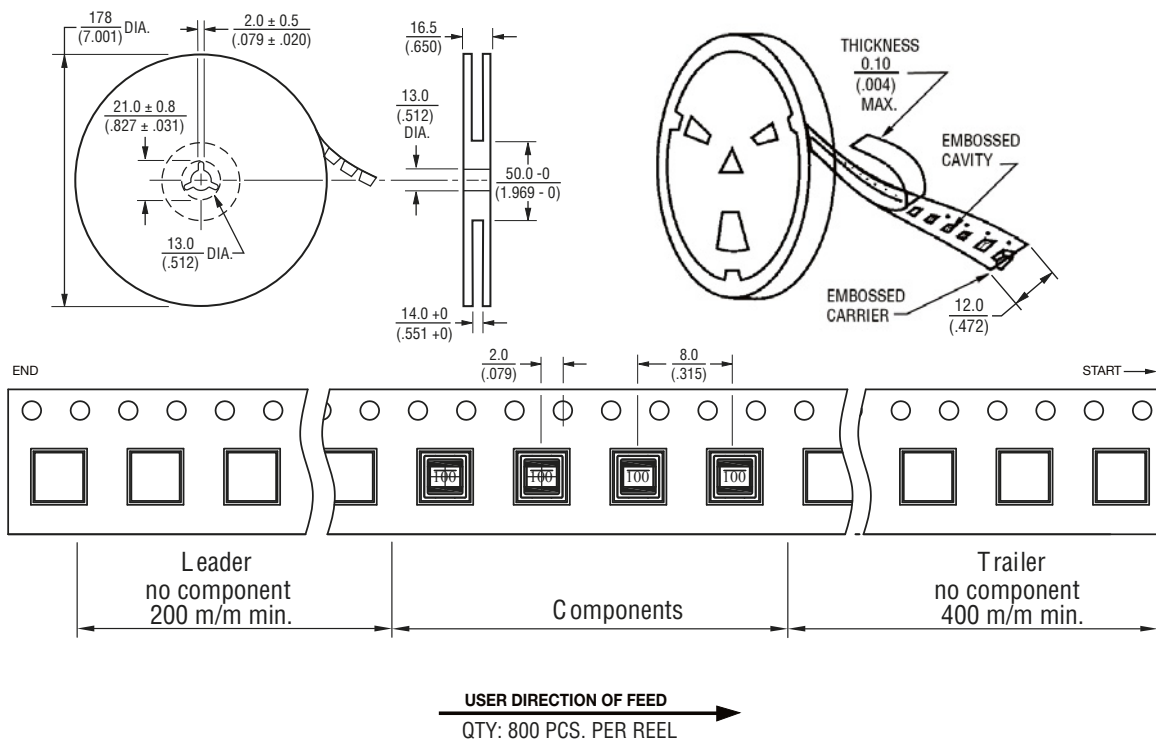
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## Soldering Profile



Peak Temperature: 260 °C max.  
 Max. Peak Temperature -5 °C: 30 sec. max.  
 Max. Time Above 217 °C: 60-150 sec. max.

## Packaging Specifications



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

REV. 08/17

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- Техническая поддержка проекта;
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