



**THE DATASHEET OF  
SRR4818A-8R2Y**





## 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

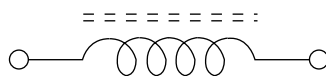
Bourns Part Number	Inductance @ 100 kHz/0.1 V		SRF (MHz) Typ.	DCR (m $\Omega$ )		I rms <sup>1</sup> (A) Typ.	I rms <sup>2</sup> (A) Typ.	I sat (A) Typ.
	L ( $\mu\text{H}$ )	Tol. (%)		Typ.	Max.			
SRR4818A-1R0Y	1.0	± 30	140	19.2	25.0	4.00	5.10	3.60
SRR4818A-1R5Y	1.5	± 30	105	25.2	35.0	3.75	4.70	3.00
SRR4818A-2R2Y	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

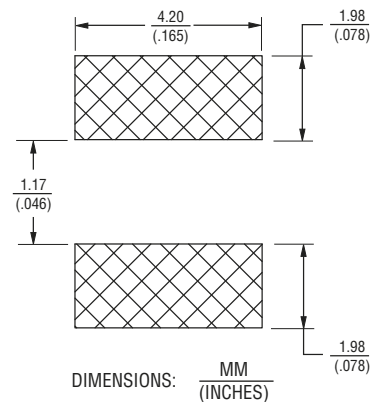
Model \_\_\_\_\_ **SRR4818A - 1R0Y**

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

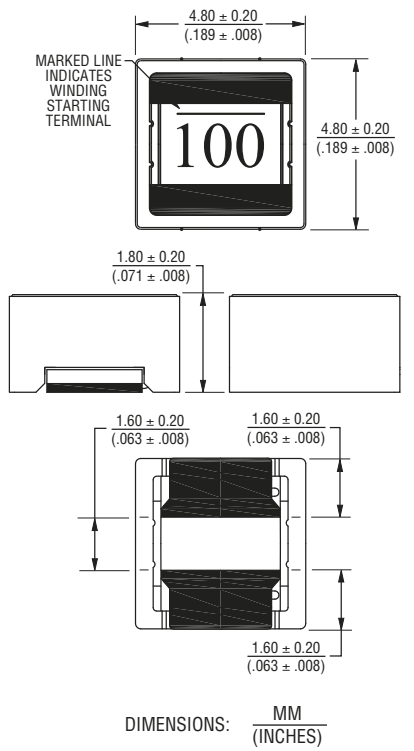
Core..... Ferrite

Wire..... Enameled copper

Terminal Finish..... Sn

Packaging..... 800 pcs. per 7-inch reel

## Product Dimensions



**Asia-Pacific:**  
Tel: +886-2 2562-4117  
Fax: +886-2 2562-4116

**Europe:**  
Tel: +41-41 768 5555  
Fax: +41-41 768 5510

**The Americas:**  
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Fax: +1-951 781-5700

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**WARNING Cancer and Reproductive Harm**  
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\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

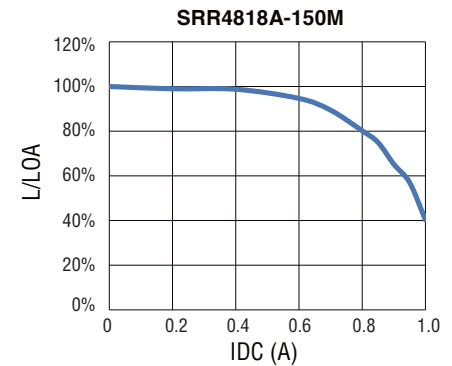
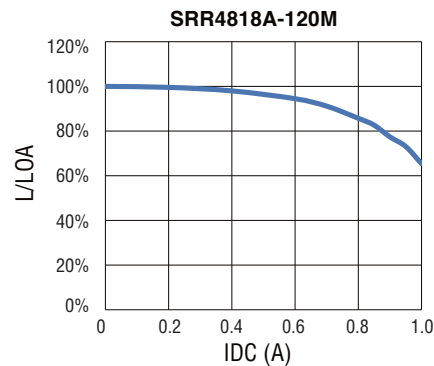
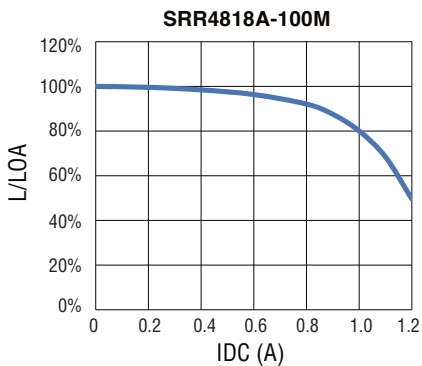
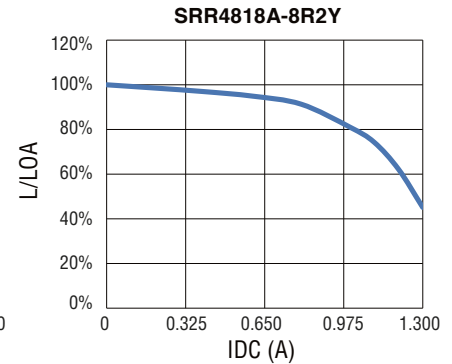
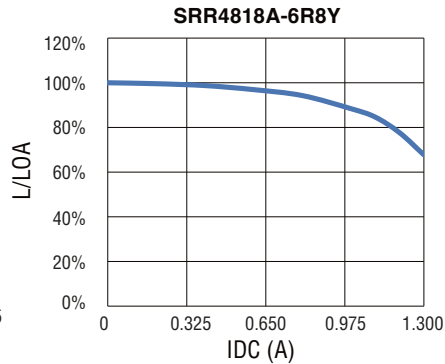
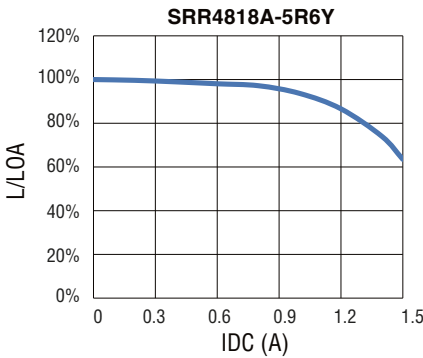
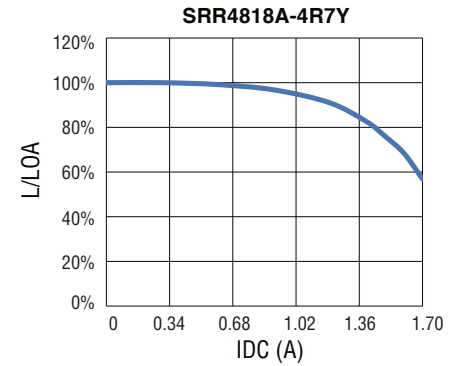
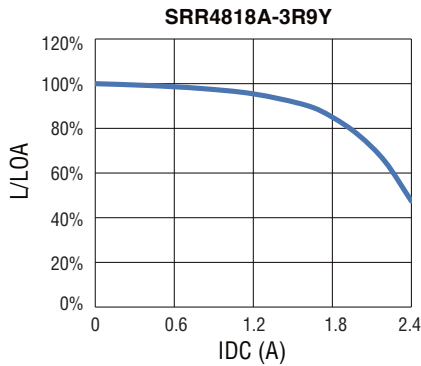
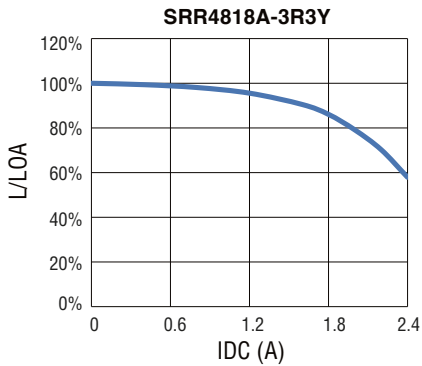
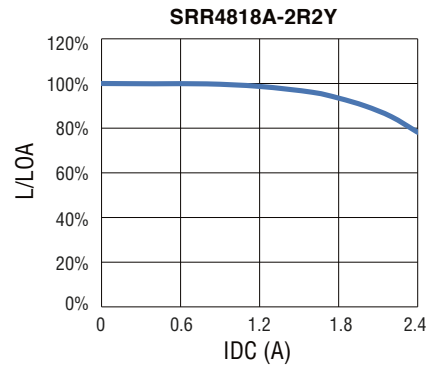
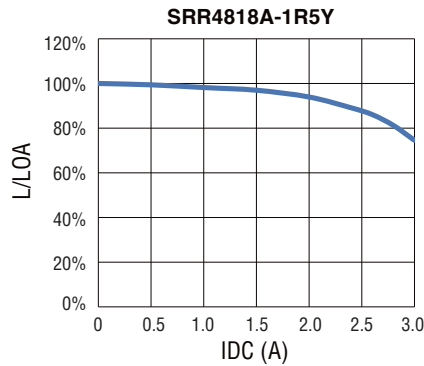
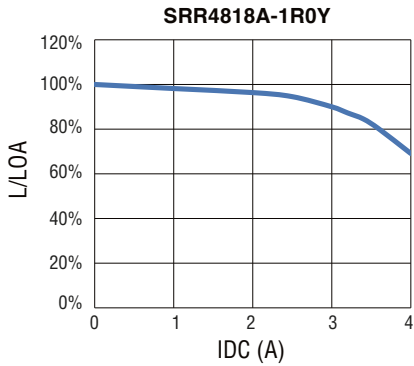
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRR4818A Series - Shielded Power Inductors

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## Inductance vs. IDC



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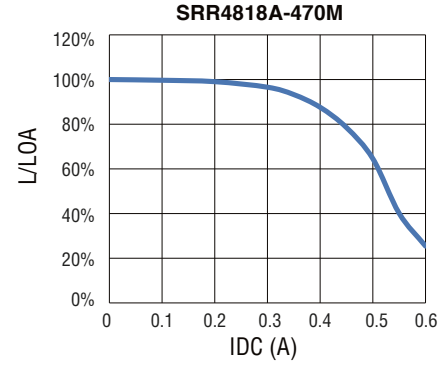
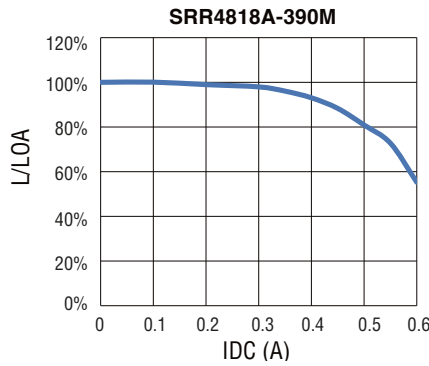
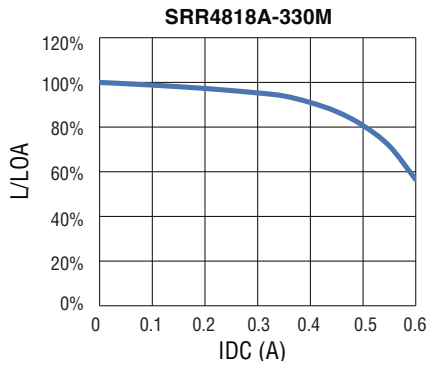
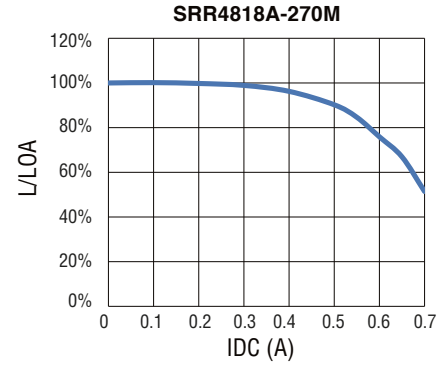
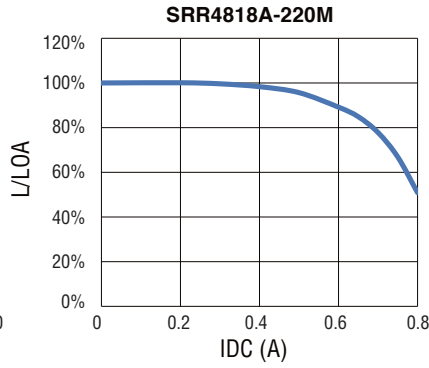
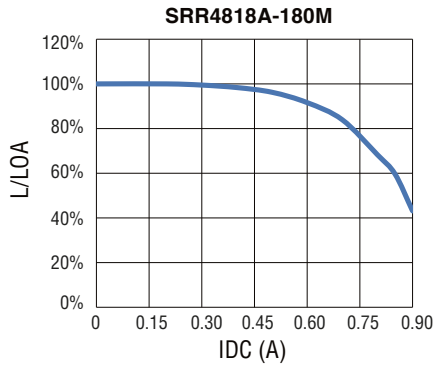
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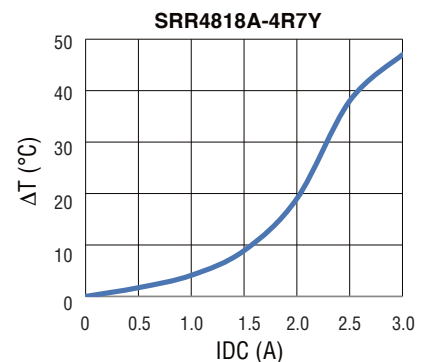
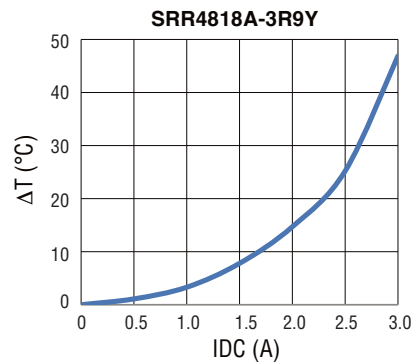
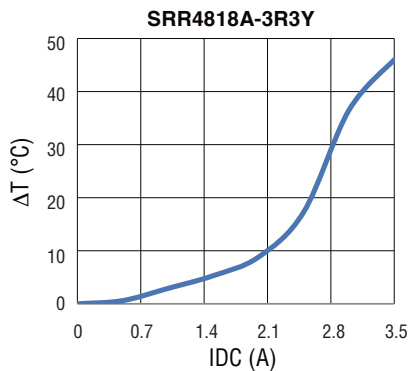
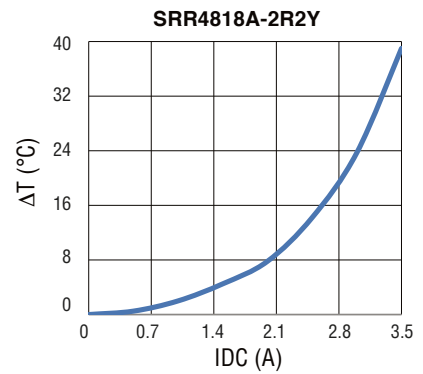
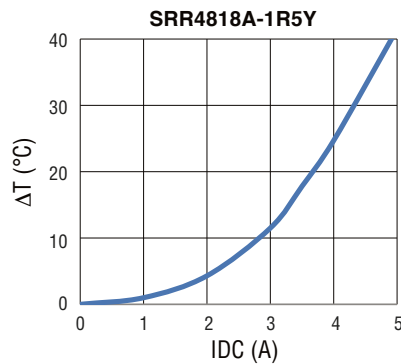
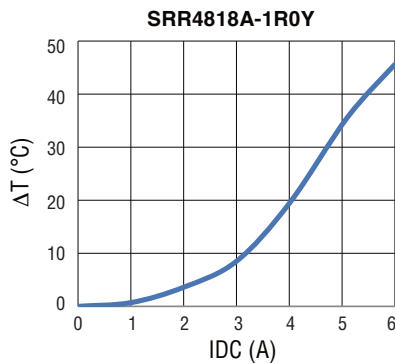
# SRR4818A Series - Shielded Power Inductors

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## Inductance vs. IDC (Continued)



## Temperature vs. IDC

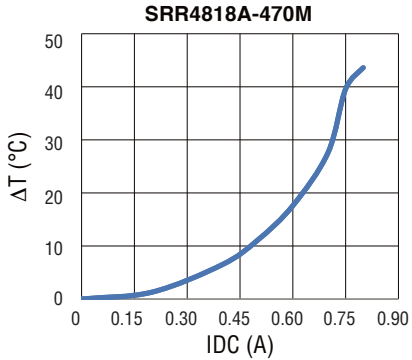
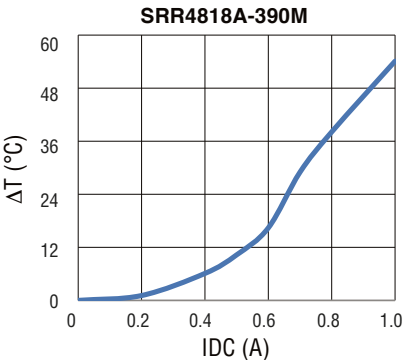
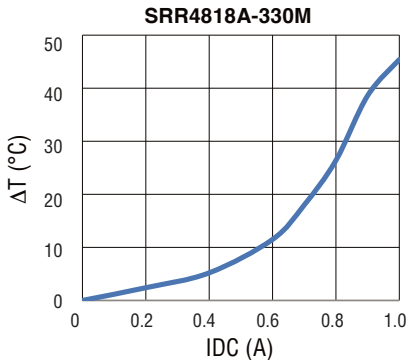
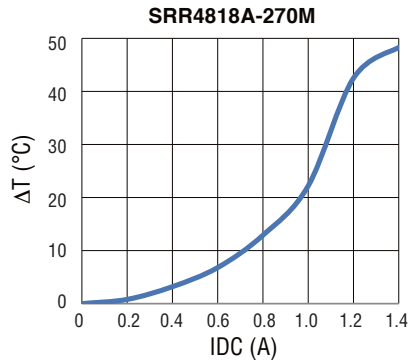
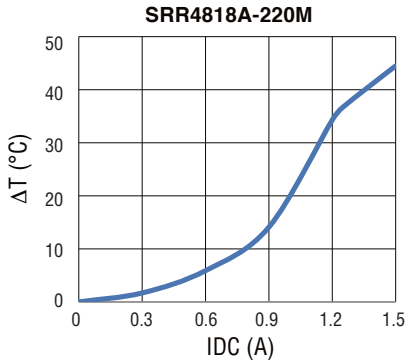
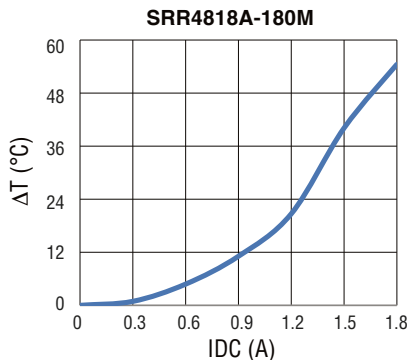
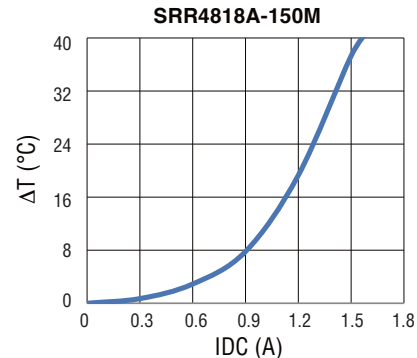
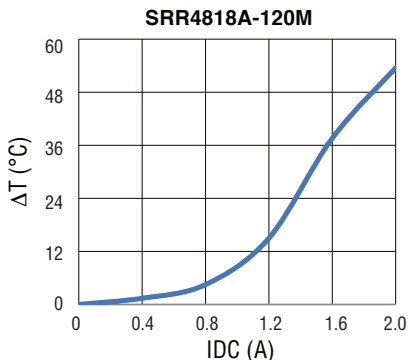
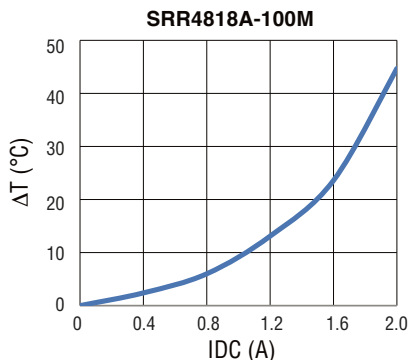
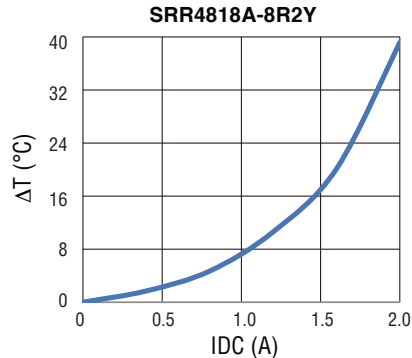
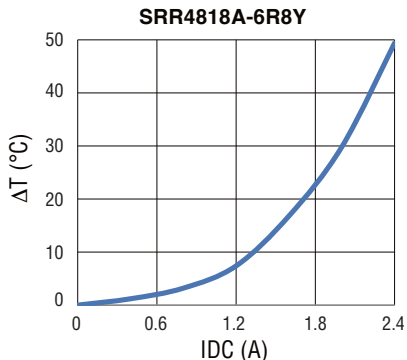
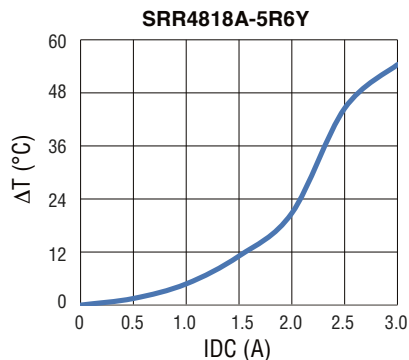


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# SRR4818A Series - Shielded Power Inductors

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## Temperature vs. IDC (Continued)

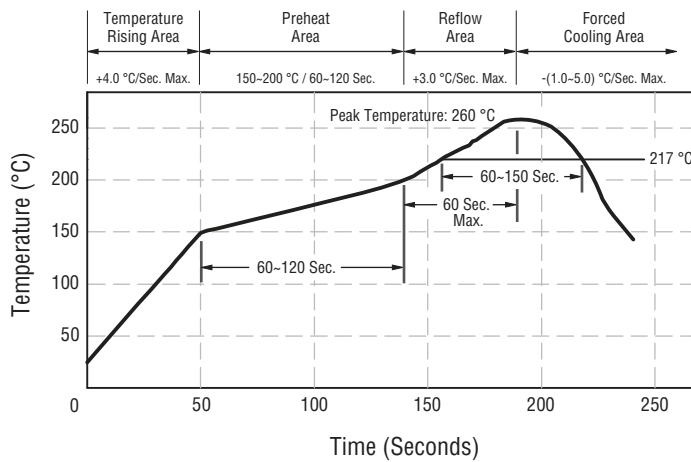


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# SRR4818A Series - Shielded Power Inductors

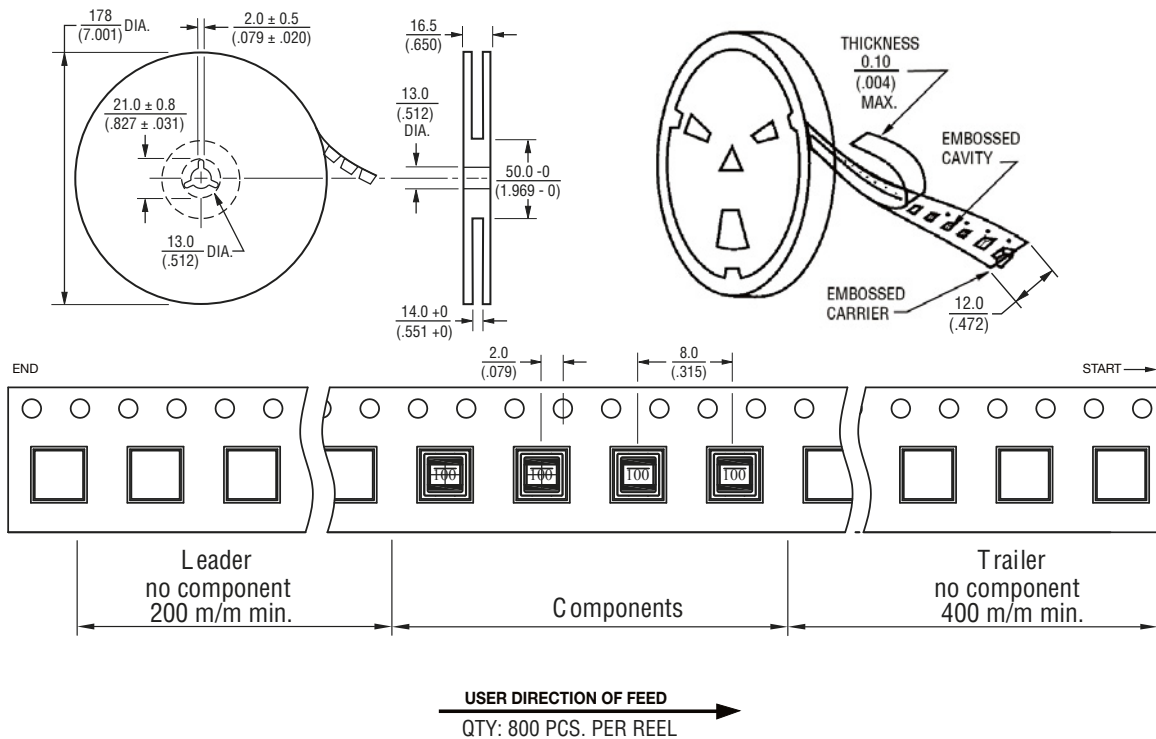
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## Soldering Profile



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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