



## Features

- Shielded construction – low radiation
- Inductance range: 2.6 to 1000  $\mu$ H
- Heating current up to 4.5 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

- Automotive driver assistant devices, infotainment systems and lighting
- DC-DC converters
- Power supplies in consumer, industrial, and telecom electronics

## SRR5828A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 KHz / 1.0 V |          | SRF (MHz) Typ. | DCR (milliohms) |        | $I_{rms1}$ (A) Typ. | $I_{rms2}$ (A) Typ. | $I_{sat}$ (A) Typ. |
|--------------------|------------------------------|----------|----------------|-----------------|--------|---------------------|---------------------|--------------------|
|                    | L ( $\mu$ H)                 | Tol. (%) |                | Typ.            | Max.   |                     |                     |                    |
| SRR5828A-2R6Y      | 2.6                          | $\pm$ 30 | 78.0           | 23.0            | 30.0   | 3.25                | 4.50                | 3.15               |
| SRR5828A-3R3Y      | 3.3                          | $\pm$ 30 | 70.0           | 27.0            | 35.0   | 3.20                | 4.40                | 2.80               |
| SRR5828A-4R7Y      | 4.7                          | $\pm$ 30 | 48.0           | 31.0            | 40.0   | 3.00                | 4.00                | 2.57               |
| SRR5828A-5R3Y      | 5.3                          | $\pm$ 30 | 46.0           | 35.0            | 42.0   | 2.80                | 3.80                | 2.20               |
| SRR5828A-6R2Y      | 6.2                          | $\pm$ 30 | 41.0           | 45.0            | 57.0   | 2.60                | 3.50                | 2.10               |
| SRR5828A-8R2Y      | 8.2                          | $\pm$ 30 | 37.0           | 49.0            | 63.0   | 2.30                | 3.00                | 1.62               |
| SRR5828A-100M      | 10.0                         | $\pm$ 20 | 32.0           | 64.0            | 83.0   | 2.00                | 2.60                | 1.55               |
| SRR5828A-120M      | 12.0                         | $\pm$ 20 | 25.0           | 76.0            | 100.0  | 1.85                | 2.50                | 1.50               |
| SRR5828A-150M      | 15.0                         | $\pm$ 20 | 25.0           | 90.0            | 115.0  | 1.70                | 2.25                | 1.35               |
| SRR5828A-180M      | 18.0                         | $\pm$ 20 | 22.0           | 100.0           | 130.0  | 1.60                | 2.15                | 1.30               |
| SRR5828A-220M      | 22.0                         | $\pm$ 20 | 19.0           | 125.0           | 160.0  | 1.35                | 1.75                | 1.15               |
| SRR5828A-270M      | 27.0                         | $\pm$ 20 | 18.0           | 147.0           | 180.0  | 1.25                | 1.65                | 1.05               |
| SRR5828A-330M      | 33.0                         | $\pm$ 20 | 15.0           | 190.0           | 230.0  | 1.10                | 1.40                | 0.92               |
| SRR5828A-390M      | 39.0                         | $\pm$ 20 | 14.0           | 200.0           | 260.0  | 1.05                | 1.37                | 0.86               |
| SRR5828A-470M      | 47.0                         | $\pm$ 20 | 13.0           | 247.0           | 305.0  | 1.00                | 1.33                | 0.78               |
| SRR5828A-560M      | 56.0                         | $\pm$ 20 | 11.0           | 315.0           | 395.0  | 0.85                | 1.13                | 0.70               |
| SRR5828A-680M      | 68.0                         | $\pm$ 20 | 10.0           | 375.0           | 470.0  | 0.80                | 1.03                | 0.65               |
| SRR5828A-820M      | 82.0                         | $\pm$ 20 | 9.0            | 425.0           | 530.0  | 0.73                | 0.95                | 0.60               |
| SRR5828A-101M      | 100.0                        | $\pm$ 20 | 8.0            | 550.0           | 645.0  | 0.60                | 0.80                | 0.53               |
| SRR5828A-151M      | 150.0                        | $\pm$ 20 | 7.0            | 770.0           | 910.0  | 0.55                | 0.70                | 0.45               |
| SRR5828A-181M      | 180.0                        | $\pm$ 20 | 5.5            | 940.0           | 1100.0 | 0.48                | 0.64                | 0.42               |
| SRR5828A-221M      | 220.0                        | $\pm$ 20 | 5.0            | 1095.0          | 1200.0 | 0.45                | 0.62                | 0.37               |
| SRR5828A-331M      | 330.0                        | $\pm$ 20 | 4.0            | 1830.0          | 2100.0 | 0.35                | 0.46                | 0.30               |
| SRR5828A-681M      | 680.0                        | $\pm$ 20 | 3.0            | 4170.0          | 4800.0 | 0.23                | 0.31                | 0.21               |
| SRR5828A-102M      | 1000.0                       | $\pm$ 20 | 2.0            | 6360.0          | 7300.0 | 0.15                | 0.21                | 0.13               |

#### Notes:

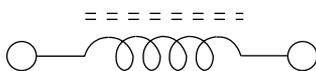
1.  $I_{rms1}$  based on temperature rise of 20 °C typ.
2.  $I_{rms2}$  based on temperature rise of 40 °C typ.

### How to Order

**SRR5828A - 2R6Y**

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

### Electrical Schematic



### General Specifications

Operating Temperature ..... -40 °C to +150 °C  
(Temperature rise included)

Storage Temperature ..... -40 °C to +150 °C

Temperature Rise ..... 20 °C typ. at rated  $I_{rms1}$   
..... 40 °C typ. at rated  $I_{rms2}$

Inductance Drop ..... 35 % typ. at  $I_{sat}$

Moisture Sensitivity Level ..... 1

ESD Classification (HBM) ..... N/A

### Additional Information

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### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn/Ag/Cu  
Packaging ..... 400 pcs. per 7-inch reel



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

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

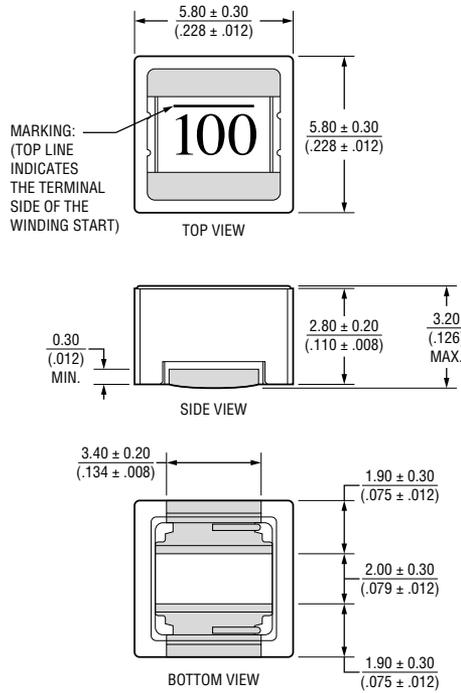
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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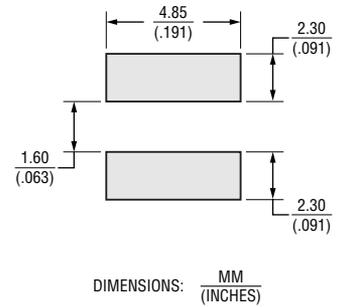
# SRR5828A Series - Shielded Power Inductors



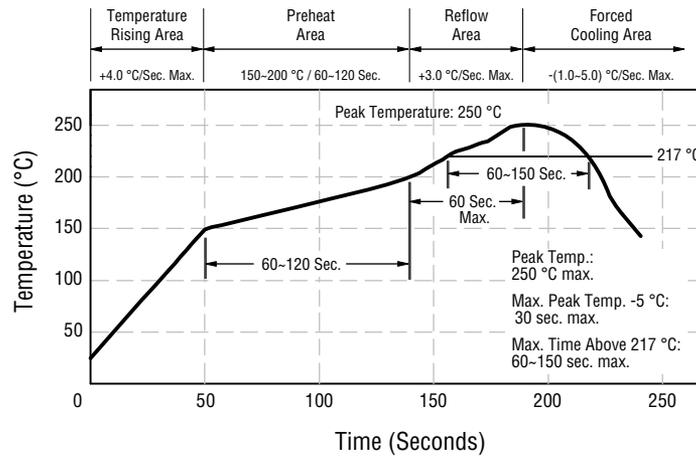
## Product Dimensions



## Recommended Layout



## Soldering Profile



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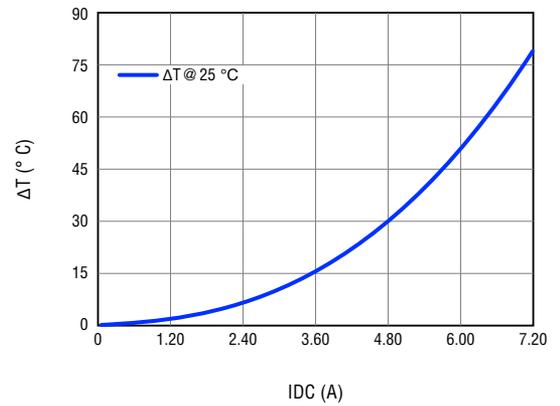
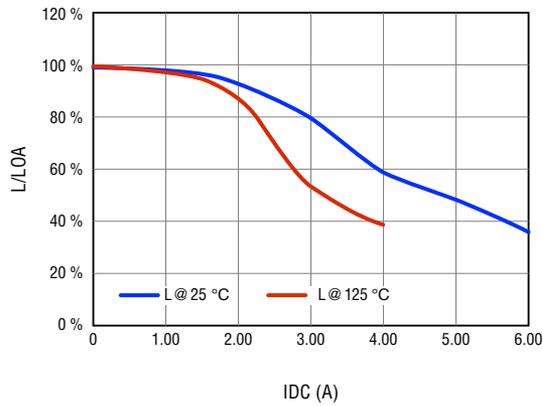
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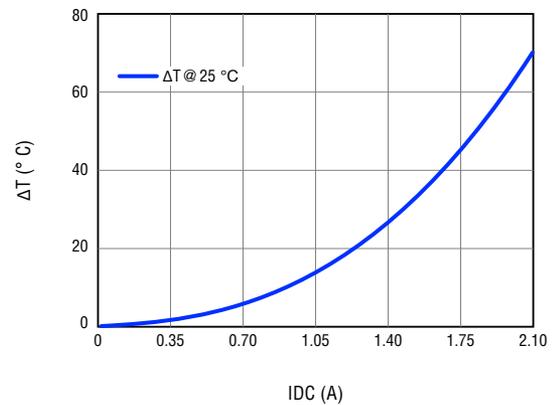
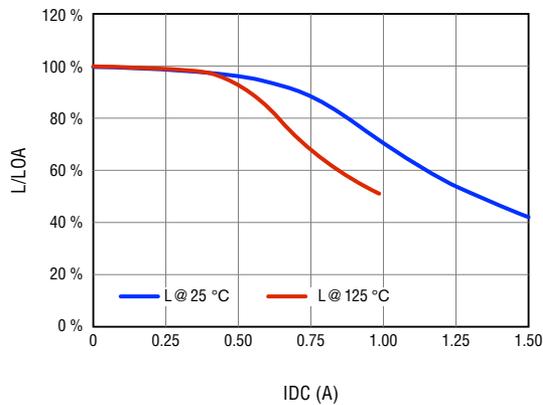
**BOURNS®**

## Typical Current Characteristics

### SRR5828A-2R6Y



### SRR5828A-330M



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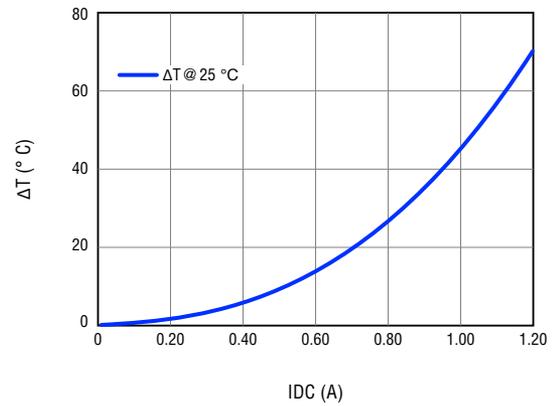
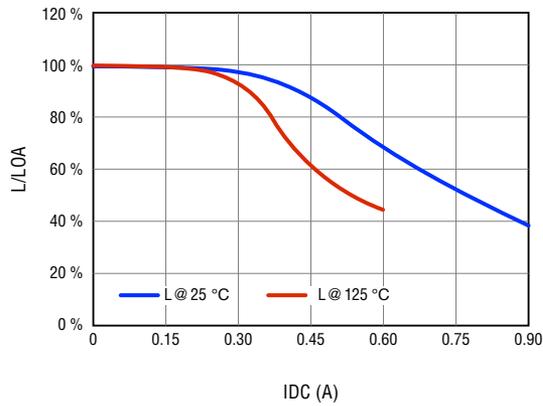
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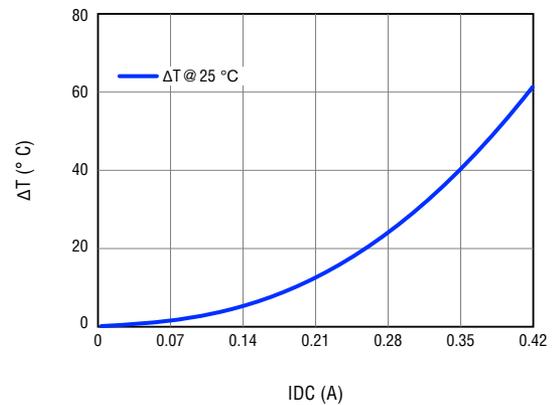
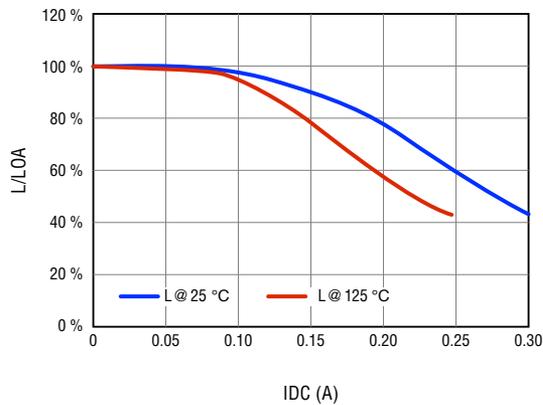
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## Typical Current Characteristics (continued)

### SRR5828A-101M



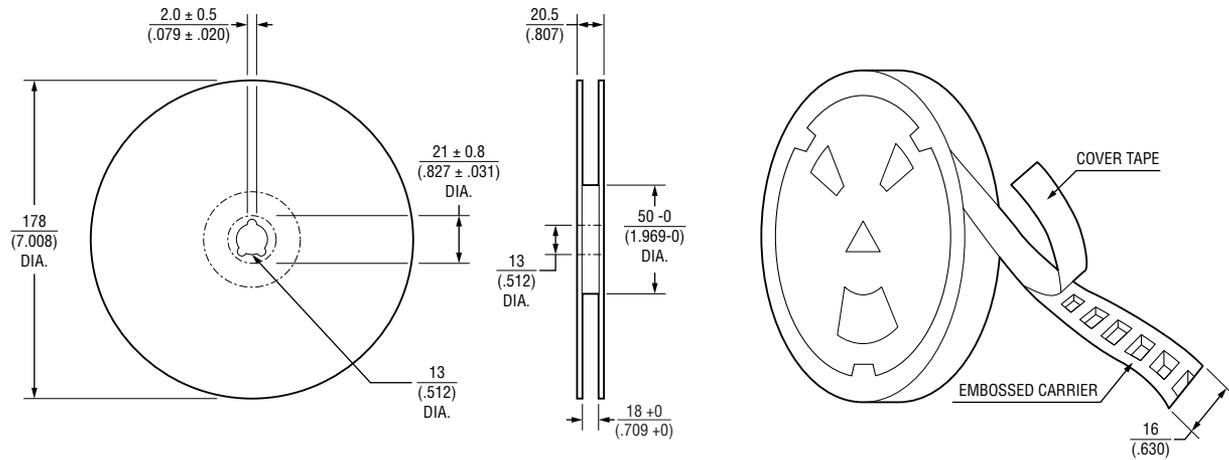
### SRR5228A-681M



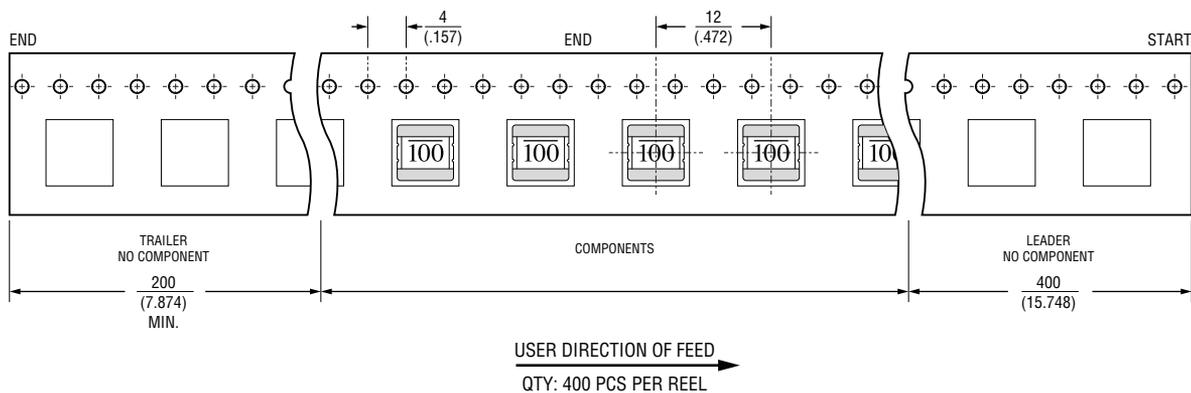
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## Packaging Specifications



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



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