



## Features

- Shielded construction – low radiation
- Inductance range: 1.2 to 1000  $\mu$ H
- Heating current up to 5.2 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

## SRR5228A 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.   |                     |                     |                    |
| SRR5228A-1R2Y      | 1.2                          | $\pm$ 30 | 170.0          | 14.0            | 22.0   | 3.90                | 5.20                | 4.30               |
| SRR5228A-2R2Y      | 2.2                          | $\pm$ 30 | 95.0           | 21.0            | 27.0   | 3.10                | 4.10                | 3.10               |
| SRR5228A-3R3Y      | 3.3                          | $\pm$ 30 | 70.0           | 27.0            | 32.0   | 2.80                | 3.60                | 2.30               |
| SRR5228A-4R7Y      | 4.7                          | $\pm$ 30 | 55.0           | 35.0            | 45.0   | 2.45                | 3.20                | 2.00               |
| SRR5228A-6R8Y      | 6.8                          | $\pm$ 30 | 40.0           | 45.0            | 56.0   | 2.20                | 2.80                | 1.80               |
| SRR5228A-100M      | 10.0                         | $\pm$ 20 | 28.0           | 69.0            | 85.0   | 1.70                | 2.30                | 1.45               |
| SRR5228A-150M      | 15.0                         | $\pm$ 20 | 23.0           | 106.0           | 140.0  | 1.40                | 1.80                | 1.25               |
| SRR5228A-220M      | 22.0                         | $\pm$ 20 | 18.0           | 150.0           | 193.0  | 1.30                | 1.70                | 1.00               |
| SRR5228A-330M      | 33.0                         | $\pm$ 20 | 14.0           | 204.0           | 260.0  | 1.00                | 1.30                | 0.84               |
| SRR5228A-470M      | 47.0                         | $\pm$ 20 | 12.0           | 295.0           | 360.0  | 0.84                | 1.10                | 0.70               |
| SRR5228A-680M      | 68.0                         | $\pm$ 20 | 10.0           | 445.0           | 550.0  | 0.65                | 0.90                | 0.57               |
| SRR5228A-101M      | 100.0                        | $\pm$ 20 | 8.0            | 650.0           | 800.0  | 0.57                | 0.70                | 0.47               |
| SRR5228A-121M      | 120.0                        | $\pm$ 20 | 6.0            | 860.0           | 1100.0 | 0.49                | 0.65                | 0.43               |
| SRR5228A-151M      | 150.0                        | $\pm$ 20 | 5.5            | 1180.0          | 1470.0 | 0.42                | 0.55                | 0.39               |
| SRR5228A-181M      | 180.0                        | $\pm$ 20 | 5.0            | 1240.0          | 1550.0 | 0.40                | 0.52                | 0.35               |
| SRR5228A-221M      | 220.0                        | $\pm$ 20 | 4.5            | 1650.0          | 2000.0 | 0.35                | 0.46                | 0.32               |
| SRR5228A-271M      | 270.0                        | $\pm$ 20 | 4.0            | 2100.0          | 2500.0 | 0.32                | 0.42                | 0.29               |
| SRR5228A-331M      | 330.0                        | $\pm$ 20 | 3.7            | 2600.0          | 3200.0 | 0.27                | 0.36                | 0.26               |
| SRR5228A-391M      | 390.0                        | $\pm$ 20 | 3.3            | 2800.0          | 3400.0 | 0.26                | 0.35                | 0.24               |
| SRR5228A-471M      | 470.0                        | $\pm$ 20 | 3.0            | 3600.0          | 4300.0 | 0.24                | 0.31                | 0.22               |
| SRR5228A-561M      | 560.0                        | $\pm$ 20 | 2.7            | 3900.0          | 4700.0 | 0.22                | 0.28                | 0.20               |
| SRR5228A-681M      | 680.0                        | $\pm$ 20 | 2.6            | 4700.0          | 5700.0 | 0.20                | 0.26                | 0.18               |
| SRR5228A-821M      | 820.0                        | $\pm$ 20 | 2.2            | 6600.0          | 7900.0 | 0.17                | 0.22                | 0.16               |
| SRR5228A-102M      | 1000.0                       | $\pm$ 20 | 2.1            | 7200.0          | 8700.0 | 0.16                | 0.21                | 0.15               |

#### Notes:

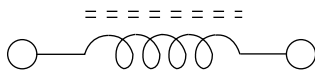
1.  $I_{rms1}$  based on temperature rise of 20 °C typ.
2.  $I_{rms2}$  based on temperature rise of 40 °C typ.

### How to Order

**SRR5228A - 1R2Y**

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

### Electrical Schematic



**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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### 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

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

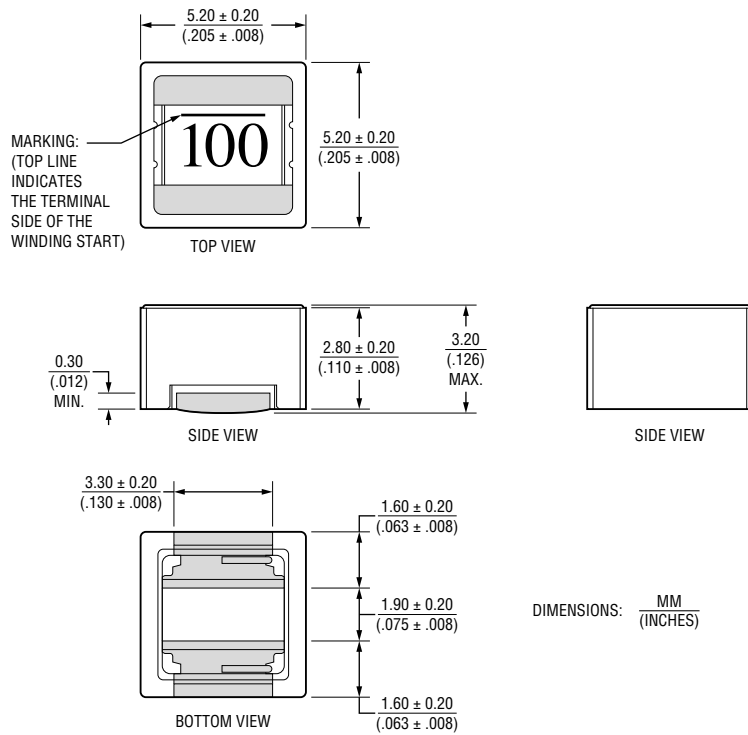
### Materials

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

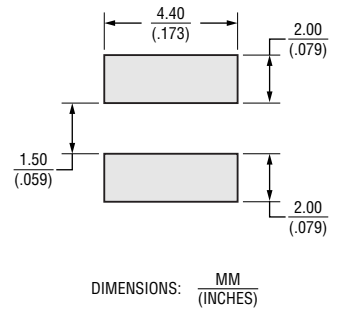
# SRR5228A Series - Shielded Power Inductors



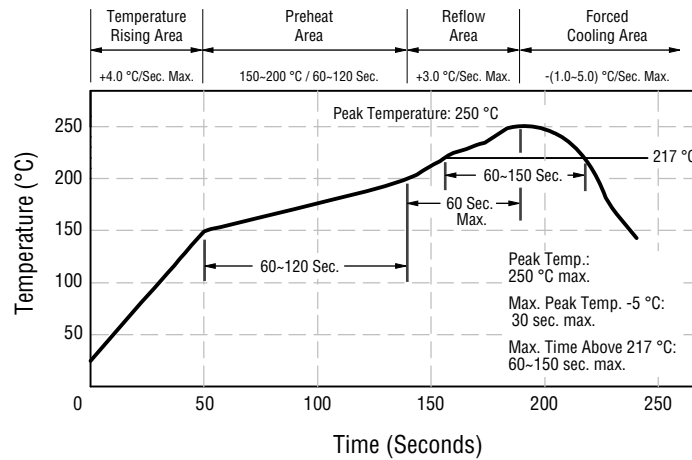
## Product Dimensions



## Recommended Layout



## Soldering Profile



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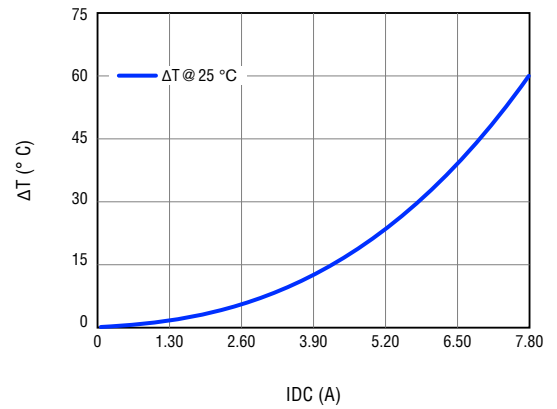
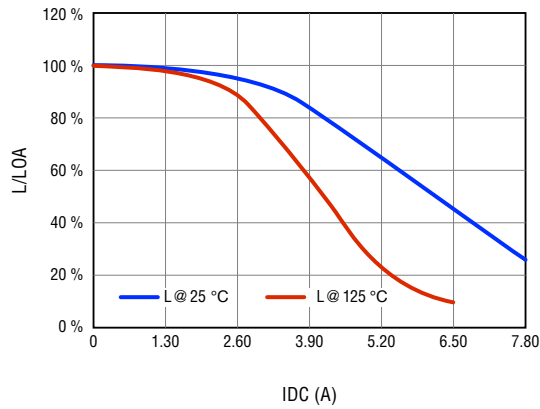
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# SRR5228A Series - Shielded Power Inductors

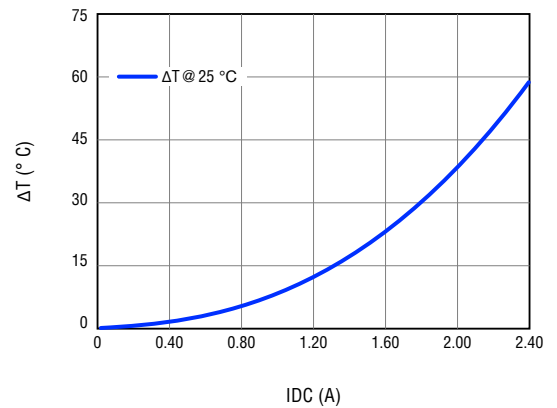
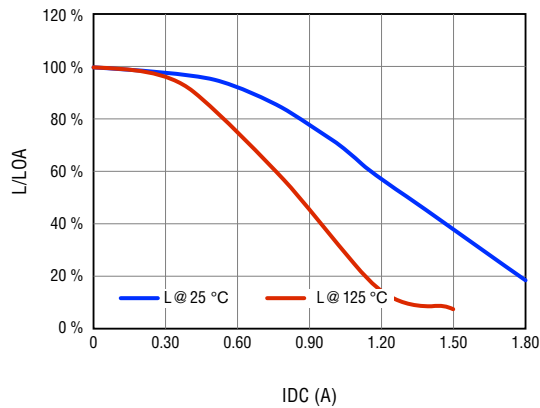
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## Typical Current Characteristics

### SRR5228A-1R2Y



### SRR5228A-220M

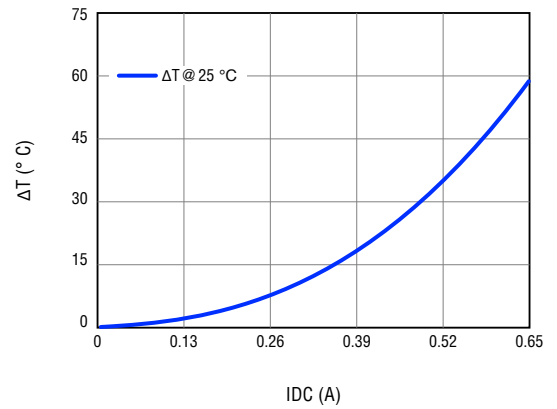
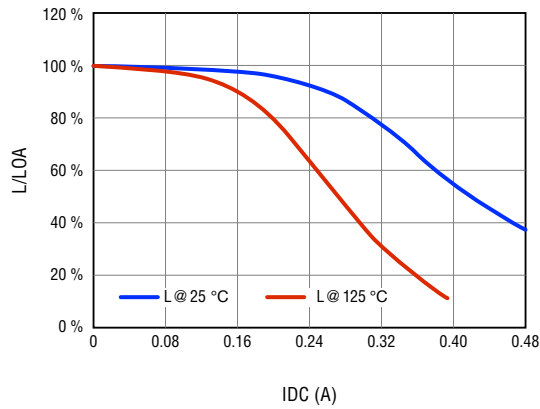


# SRR5228A Series - Shielded Power Inductors

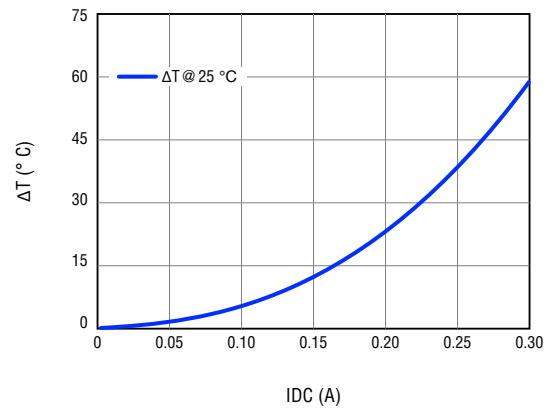
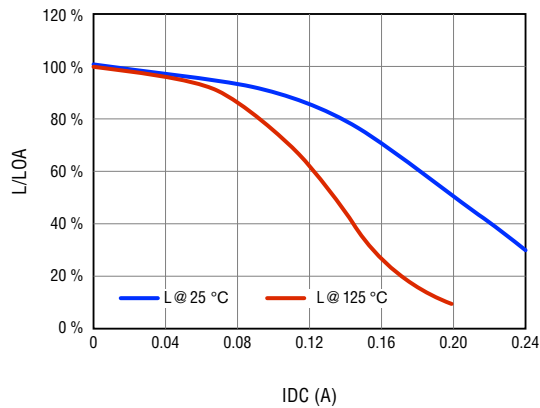
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## Typical Current Characteristics (continued)

### SRR5228A-221M



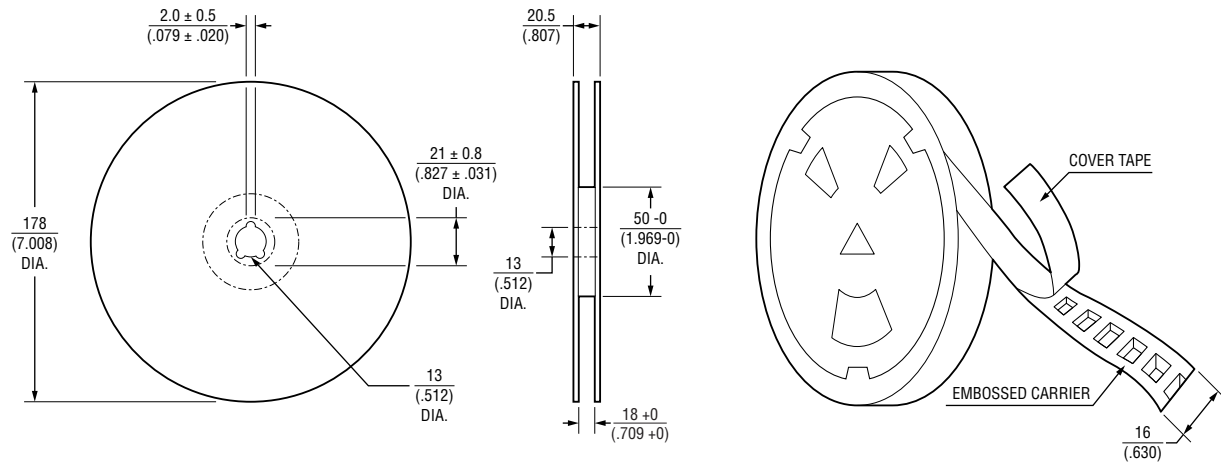
### SRR5228A-102M



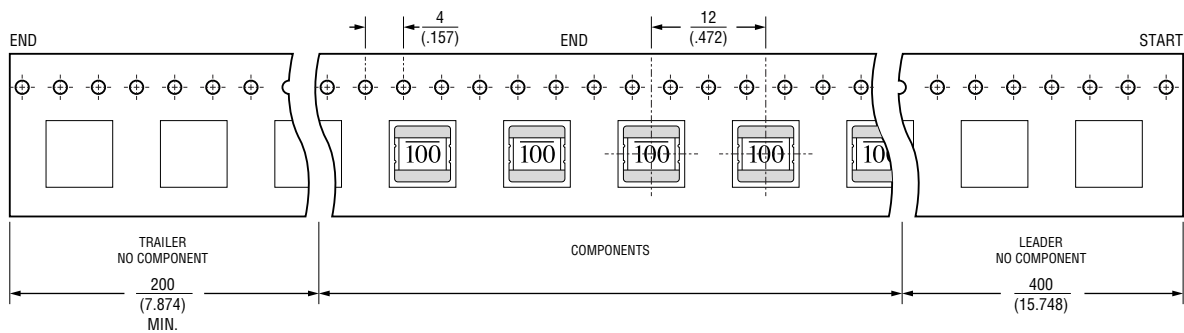
# SRR5228A Series - Shielded Power Inductors

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## Packaging Specifications



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



USER DIRECTION OF FEED →  
QTY: 400 PCS PER REEL

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

The Americas: Tel: +1-951 781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

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REV. 01/24

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