



**THE DATASHEET OF  
SRR1280A-4R7Y**





## Features

- Shielded construction
- Inductance range: 4.7 to 1000  $\mu$ H
- Heating current up to 8.2 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRR1280A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

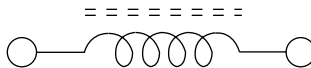
| Bourns Part Number | Inductance   |          |                        | Q (Ref.) | Test Freq. (MHz) | SRF (MHz) Typ. | DCR (m $\Omega$ ) Max. | I rms (A) | I sat (A) |
|--------------------|--------------|----------|------------------------|----------|------------------|----------------|------------------------|-----------|-----------|
|                    | L ( $\mu$ H) | Tol. (%) | Test Frequency/Voltage |          |                  |                |                        |           |           |
| SRR1280A-4R7Y      | 4.7          | $\pm 30$ | 100 KHz/1 V            | 22       | 7.96             | 30             | 15.5                   | 8.20      | 8.80      |
| SRR1280A-6R8Y      | 6.8          | $\pm 30$ | 100 KHz/1 V            | 20       | 7.96             | 22             | 18.5                   | 7.60      | 8.00      |
| SRR1280A-8R2Y      | 8.2          | $\pm 30$ | 100 KHz/1 V            | 22       | 7.96             | 20             | 20.5                   | 6.20      | 6.80      |
| SRR1280A-100M      | 10           | $\pm 20$ | 1 KHz/1 V              | 24       | 2.52             | 17             | 19.5                   | 6.00      | 6.30      |
| SRR1280A-120M      | 12           | $\pm 20$ | 1 KHz/1 V              | 26       | 2.52             | 15             | 28.0                   | 5.60      | 6.00      |
| SRR1280A-150M      | 15           | $\pm 20$ | 1 KHz/1 V              | 26       | 2.52             | 13             | 28.5                   | 5.20      | 5.00      |
| SRR1280A-180M      | 18           | $\pm 20$ | 1 KHz/1 V              | 24       | 2.52             | 12             | 35.0                   | 4.80      | 4.60      |
| SRR1280A-220M      | 22           | $\pm 20$ | 1 KHz/1 V              | 20       | 2.52             | 11             | 38.6                   | 4.30      | 4.10      |
| SRR1280A-270M      | 27           | $\pm 20$ | 1 KHz/1 V              | 26       | 2.52             | 10             | 52.0                   | 3.90      | 3.70      |
| SRR1280A-330M      | 33           | $\pm 20$ | 1 KHz/1 V              | 28       | 2.52             | 9.5            | 57.0                   | 3.50      | 3.30      |
| SRR1280A-390M      | 39           | $\pm 20$ | 1 KHz/1 V              | 24       | 2.52             | 8.5            | 70.0                   | 3.20      | 3.10      |
| SRR1280A-470M      | 47           | $\pm 20$ | 1 KHz/1 V              | 24       | 2.52             | 7.5            | 80.0                   | 2.90      | 2.80      |
| SRR1280A-560M      | 56           | $\pm 20$ | 1 KHz/1 V              | 24       | 2.52             | 7              | 100.0                  | 2.60      | 2.50      |
| SRR1280A-680M      | 68           | $\pm 20$ | 1 KHz/1 V              | 20       | 2.52             | 6.5            | 120.0                  | 2.40      | 2.30      |
| SRR1280A-820M      | 82           | $\pm 20$ | 1 KHz/1 V              | 20       | 2.52             | 5              | 130.0                  | 2.30      | 2.20      |
| SRR1280A-101M      | 100          | $\pm 20$ | 1 KHz/1 V              | 18       | 0.796            | 4.5            | 150.0                  | 2.10      | 2.00      |
| SRR1280A-121K      | 120          | $\pm 10$ | 1 KHz/1 V              | 16       | 0.796            | 4.3            | 200.0                  | 1.95      | 1.95      |
| SRR1280A-151K      | 150          | $\pm 10$ | 1 KHz/1 V              | 24       | 0.796            | 4.1            | 270.0                  | 1.85      | 1.90      |
| SRR1280A-181K      | 180          | $\pm 10$ | 1 KHz/1 V              | 24       | 0.796            | 4              | 300.0                  | 1.75      | 1.88      |
| SRR1280A-221K      | 220          | $\pm 10$ | 1 KHz/1 V              | 24       | 0.796            | 3.4            | 400.0                  | 1.60      | 1.70      |
| SRR1280A-271K      | 270          | $\pm 10$ | 1 KHz/1 V              | 20       | 0.796            | 3.1            | 450.0                  | 1.20      | 1.60      |
| SRR1280A-331K      | 330          | $\pm 10$ | 1 KHz/1 V              | 18       | 0.796            | 2.9            | 600.0                  | 1.10      | 1.40      |
| SRR1280A-391K      | 390          | $\pm 10$ | 1 KHz/1 V              | 20       | 0.796            | 2.7            | 680.0                  | 1.00      | 1.40      |
| SRR1280A-471K      | 470          | $\pm 10$ | 1 KHz/1 V              | 20       | 0.796            | 2.2            | 880.0                  | 0.90      | 1.25      |
| SRR1280A-561K      | 560          | $\pm 10$ | 1 KHz/1 V              | 20       | 0.796            | 2              | 960.0                  | 0.80      | 1.15      |
| SRR1280A-681K      | 680          | $\pm 10$ | 1 KHz/1 V              | 26       | 0.796            | 1.7            | 1300.0                 | 0.75      | 0.97      |
| SRR1280A-821K      | 820          | $\pm 10$ | 1 KHz/1 V              | 20       | 0.796            | 1.4            | 1500.0                 | 0.70      | 0.94      |
| SRR1280A-102K      | 1000         | $\pm 10$ | 1 KHz/1 V              | 40       | 0.252            | 1.3            | 1700.0                 | 0.68      | 0.80      |

### How to Order

**SRR1280A - 100M**

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

### Electrical Schematic



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**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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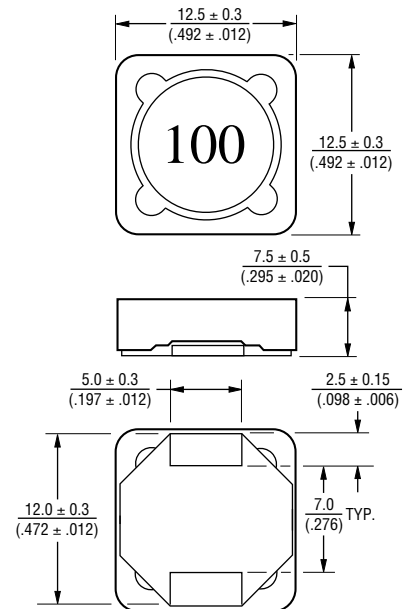
### General Specifications

Operating Temp. .... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temp. .... -40 °C to +125 °C  
Temperature Rise  
..... 40 °C typ. at rated I rms  
Inductance Drop ..... 25 % typ. at I sat  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

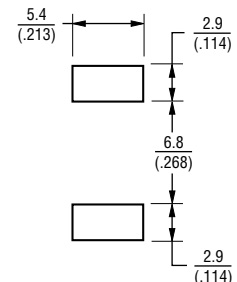
### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging ..... 400 pcs. per reel

### Product Dimensions



### Recommended Layout



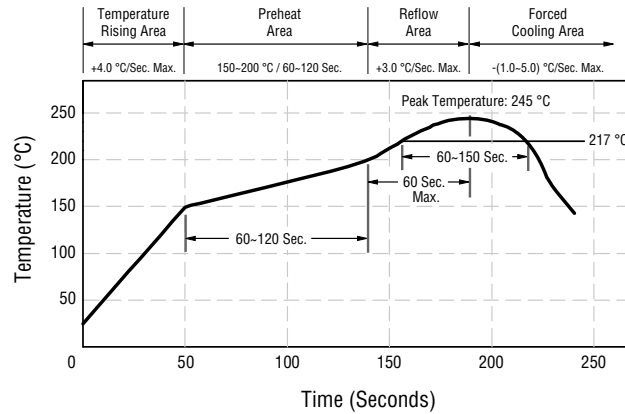
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

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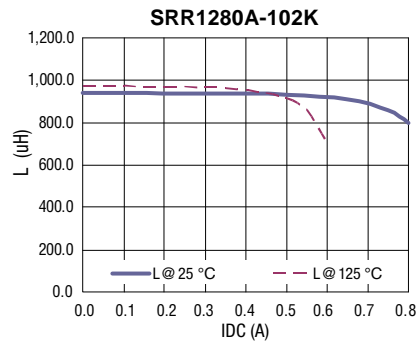
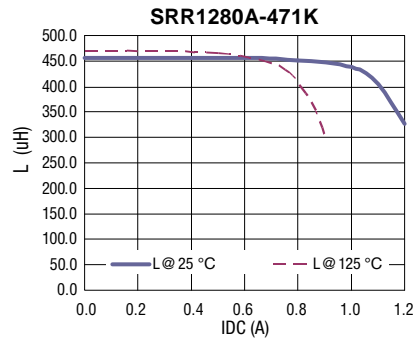


## Soldering Profile

Peak Temperature: 245 °C max.  
 Max. Peak Temperature -5°C: 30 sec. max.  
 Max. Time Above 217°C: 60-150 sec. max.



## L vs. IDC



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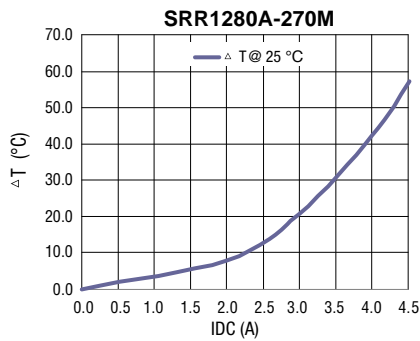
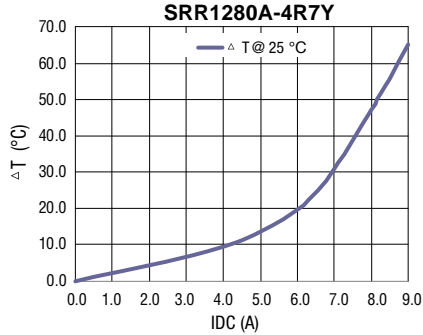
Users should verify actual device performance in their specific applications.

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## Temperature vs. IDC



## Packaging Specifications



REV. 11/19

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