



**THE DATASHEET OF  
SRR6028-681Y**





## Features

- Height of 3.0 mm max.
- Current rating up to 3.4 A
- RoHS compliant\*

## Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# SRR6028 Series - Shielded SMD Power Inductors

## Electrical Characteristics

| Bourns Part Number | Inductance 100 kHz |        | Q Ref. | Test Frequency (MHz) | SRF Typ. (MHz) | DCR Max. (mΩ) | I rms (A) | I sat (A) |
|--------------------|--------------------|--------|--------|----------------------|----------------|---------------|-----------|-----------|
|                    | (μH)               | Tol. % |        |                      |                |               |           |           |
| SRR6028-1R5Y       | 1.5                | ±30    | 8      | 7.96                 | 55             | 14            | 3.40      | 3.50      |
| SRR6028-2R5Y       | 2.5                | ±30    | 8.5    | 7.96                 | 50             | 25            | 2.80      | 3.00      |
| SRR6028-3R0Y       | 3.0                | ±30    | 9      | 7.96                 | 45             | 28            | 3.00      | 2.60      |
| SRR6028-3R3Y       | 3.3                | ±30    | 10     | 7.96                 | 45             | 28            | 2.50      | 2.60      |
| SRR6028-3R9Y       | 3.9                | ±30    | 9      | 7.96                 | 40             | 32            | 2.45      | 2.30      |
| SRR6028-5R0Y       | 5.0                | ±30    | 7.5    | 7.96                 | 38             | 36            | 2.40      | 2.10      |
| SRR6028-6R0Y       | 6.0                | ±30    | 9      | 7.96                 | 35             | 40            | 2.30      | 2.00      |
| SRR6028-7R3Y       | 7.3                | ±30    | 6      | 7.96                 | 30             | 52            | 2.20      | 1.85      |
| SRR6028-8R6Y       | 8.6                | ±30    | 8      | 2.52                 | 28             | 56            | 2.10      | 1.82      |
| SRR6028-100Y       | 10                 | ±30    | 11     | 2.52                 | 25             | 65            | 2.00      | 1.70      |
| SRR6028-120Y       | 12                 | ±30    | 10     | 2.52                 | 24             | 70            | 1.90      | 1.50      |
| SRR6028-150Y       | 15                 | ±30    | 9.5    | 2.52                 | 22             | 78            | 1.70      | 1.30      |
| SRR6028-180Y       | 18                 | ±30    | 9      | 2.52                 | 21             | 85            | 1.50      | 1.10      |
| SRR6028-220Y       | 22                 | ±30    | 8.5    | 2.52                 | 20             | 115           | 1.40      | 1.08      |
| SRR6028-270Y       | 27                 | ±30    | 9      | 2.52                 | 19             | 130           | 1.20      | 1.00      |
| SRR6028-330Y       | 33                 | ±30    | 10     | 2.52                 | 18             | 155           | 1.15      | 0.92      |
| SRR6028-390Y       | 39                 | ±30    | 10     | 2.52                 | 17             | 195           | 1.00      | 0.75      |
| SRR6028-470Y       | 47                 | ±30    | 10     | 2.52                 | 16             | 235           | 0.92      | 0.72      |
| SRR6028-560Y       | 56                 | ±30    | 10     | 0.796                | 15             | 260           | 0.85      | 0.65      |
| SRR6028-680Y       | 68                 | ±30    | 11     | 0.796                | 15             | 300           | 0.80      | 0.60      |
| SRR6028-820Y       | 82                 | ±30    | 9      | 0.796                | 14             | 400           | 0.70      | 0.56      |
| SRR6028-101Y       | 100                | ±30    | 8.5    | 0.796                | 14             | 500           | 0.58      | 0.55      |
| SRR6028-151Y       | 150                | ±30    | 12     | 0.796                | 13             | 680           | 0.50      | 0.42      |
| SRR6028-221Y       | 220                | ±30    | 15     | 0.796                | 12             | 820           | 0.45      | 0.36      |
| SRR6028-331Y       | 330                | ±30    | 11     | 0.796                | 10             | 1400          | 0.37      | 0.27      |
| SRR6028-471Y       | 470                | ±30    | 11     | 0.796                | 9              | 2100          | 0.27      | 0.22      |
| SRR6028-681Y       | 680                | ±30    | 13     | 0.796                | 8              | 3100          | 0.22      | 0.20      |
| SRR6028-102Y       | 1000               | ±30    | 32     | 0.252                | 7              | 4500          | 0.15      | 0.17      |

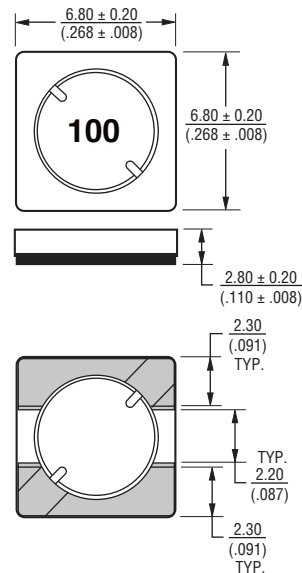
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ... 230 °C, 50 sec. max.  
 Operating Temp. .... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature.. -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C for 10 sec.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

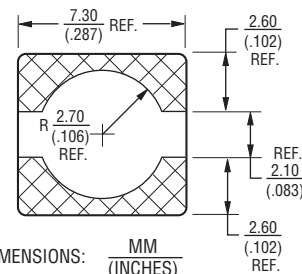
## Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Adhesive..... Epoxy resin  
 Terminal..... Ag/Ni/Sn  
 Rated Current  
 ..... Ind. drop 35 % typ. at Isat  
 Temperature Rise..... 30 °C typ.  
 at rated Irms  
 Packaging..... 500 pcs. per reel

## Product Dimensions

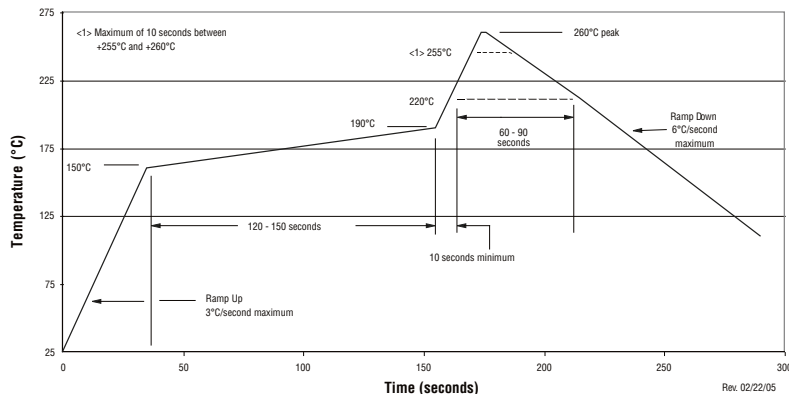


## Recommended Layout



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

## Soldering Profile



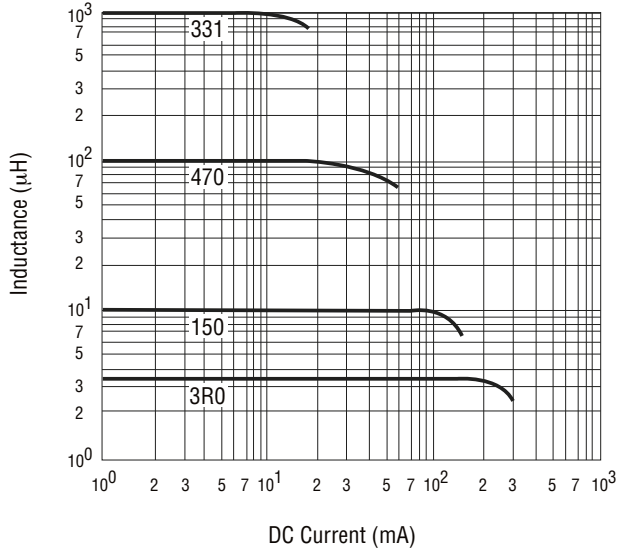
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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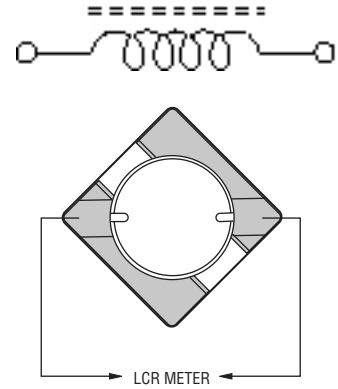
# SRR6028 Series - Shielded SMD Power Inductors

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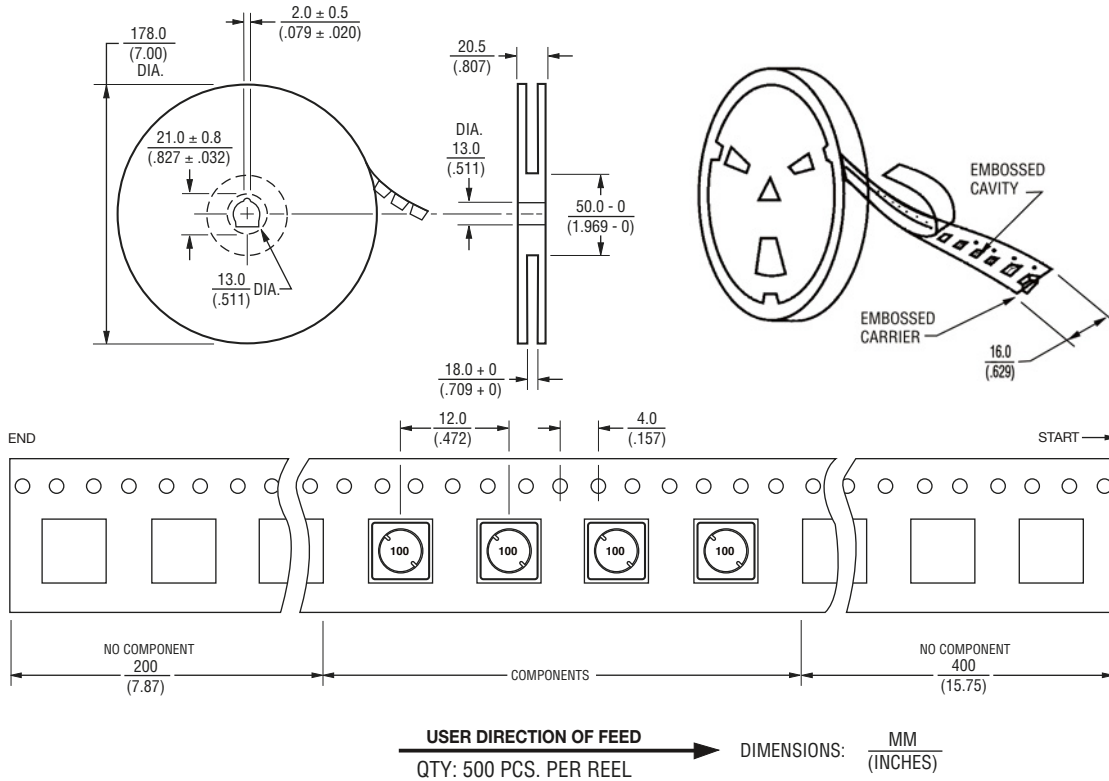
## Inductance vs. Current



## Electrical Schematic



## Packaging Specifications



REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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