



## Features

- Height of 3.0 mm max.
- Current rating up to 3.1 A
- RoHS compliant\*

## Additional Information

Click these links for more information:

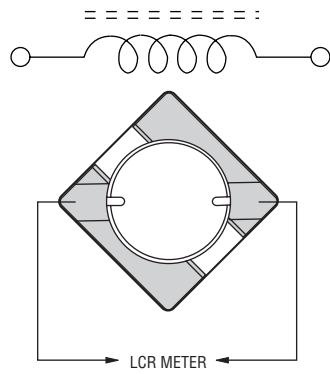


## SRR4028 Series - Shielded SMD Power Inductors

### 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. % |        |                      |                |               |           |           |
| SRR4028-1R2Y       | 1.2                | ±30    | 9.34   | 7.96                 | 143.0          | 20            | 3.10      | 2.560     |
| SRR4028-1R8Y       | 1.8                | ±30    | 9.18   | 7.96                 | 117.0          | 25            | 2.70      | 2.200     |
| SRR4028-2R2Y       | 2.2                | ±30    | 9.24   | 7.96                 | 90.0           | 28            | 2.50      | 2.050     |
| SRR4028-2R7Y       | 2.7                | ±30    | 8.64   | 7.96                 | 88.0           | 30            | 2.35      | 1.800     |
| SRR4028-3R3Y       | 3.3                | ±30    | 7.72   | 7.96                 | 77.0           | 35            | 2.15      | 1.650     |
| SRR4028-3R9Y       | 3.9                | ±30    | 8.58   | 7.96                 | 79.0           | 60            | 1.72      | 1.500     |
| SRR4028-4R7Y       | 4.7                | ±30    | 8.12   | 7.96                 | 42.0           | 70            | 1.55      | 1.300     |
| SRR4028-5R6Y       | 5.6                | ±30    | 9.56   | 7.96                 | 68.0           | 85            | 1.38      | 1.200     |
| SRR4028-6R8Y       | 6.8                | ±30    | 9.624  | 7.96                 | 58.0           | 90            | 1.30      | 1.150     |
| SRR4028-8R2Y       | 8.2                | ±30    | 8.24   | 7.96                 | 45.0           | 100           | 1.25      | 1.050     |
| SRR4028-100Y       | 10                 | ±30    | 11.26  | 2.52                 | 30.0           | 110           | 1.19      | 1.000     |
| SRR4028-120Y       | 12                 | ±30    | 11.26  | 2.52                 | 29.0           | 125           | 1.12      | 0.850     |
| SRR4028-150Y       | 15                 | ±30    | 9.66   | 2.52                 | 30.0           | 150           | 1.03      | 0.780     |
| SRR4028-180Y       | 18                 | ±30    | 11.64  | 2.52                 | 27.0           | 160           | 0.98      | 0.750     |
| SRR4028-220Y       | 22                 | ±30    | 8.26   | 2.52                 | 23.0           | 185           | 0.93      | 0.720     |
| SRR4028-270Y       | 27                 | ±30    | 10.76  | 2.52                 | 18.0           | 200           | 0.89      | 0.600     |
| SRR4028-330Y       | 33                 | ±30    | 9.7    | 2.52                 | 16.0           | 230           | 0.82      | 0.580     |
| SRR4028-390Y       | 39                 | ±30    | 9.74   | 2.52                 | 20.0           | 250           | 0.80      | 0.500     |
| SRR4028-470Y       | 47                 | ±30    | 10.88  | 2.52                 | 10.0           | 280           | 0.75      | 0.480     |
| SRR4028-560Y       | 56                 | ±30    | 9      | 2.52                 | 11.0           | 320           | 0.70      | 0.410     |
| SRR4028-680Y       | 68                 | ±30    | 8.42   | 2.52                 | 13.0           | 400           | 0.63      | 0.360     |
| SRR4028-820Y       | 82                 | ±30    | 8.6    | 2.52                 | 9.8            | 520           | 0.56      | 0.320     |
| SRR4028-101Y       | 100                | ±30    | 8.78   | 0.796                | 10.0           | 600           | 0.51      | 0.300     |
| SRR4028-121Y       | 120                | ±30    | 13.32  | 0.796                | 8.8            | 700           | 0.47      | 0.280     |
| SRR4028-151Y       | 150                | ±30    | 11.72  | 0.796                | 6.8            | 860           | 0.42      | 0.260     |
| SRR4028-181Y       | 180                | ±30    | 13.86  | 0.796                | 6.7            | 1000          | 0.39      | 0.230     |
| SRR4028-221Y       | 220                | ±30    | 11.3   | 0.796                | 6.1            | 1250          | 0.34      | 0.200     |
| SRR4028-271Y       | 270                | ±30    | 17.46  | 0.796                | 4.3            | 1500          | 0.32      | 0.180     |
| SRR4028-331Y       | 330                | ±30    | 16.48  | 0.796                | 4.3            | 1700          | 0.30      | 0.170     |
| SRR4028-391Y       | 390                | ±30    | 13.18  | 0.796                | 3.9            | 2200          | 0.26      | 0.160     |
| SRR4028-471Y       | 470                | ±30    | 13.26  | 0.796                | 2.9            | 2600          | 0.24      | 0.155     |
| SRR4028-561Y       | 560                | ±30    | 16.46  | 0.796                | 3.0            | 3000          | 0.22      | 0.150     |

### Electrical Schematic



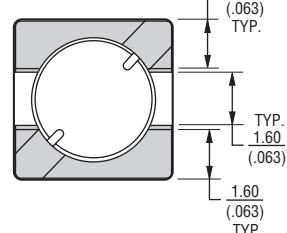
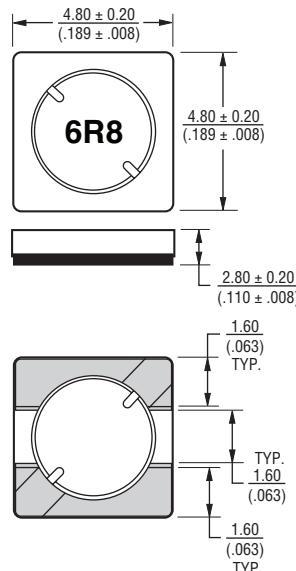
### General Specifications

Test Voltage ..... 0.1 V  
 Operating Temp. .... -55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature.. -40 °C to +125 °C  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

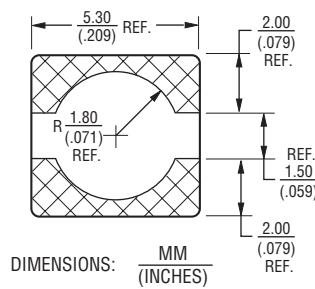
### Materials

Core ..... Ferrite  
 Wire ..... Enamelled copper  
 Adhesive..... Epoxy resin  
 Terminal Finish ..... SnAgCu  
 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



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant. See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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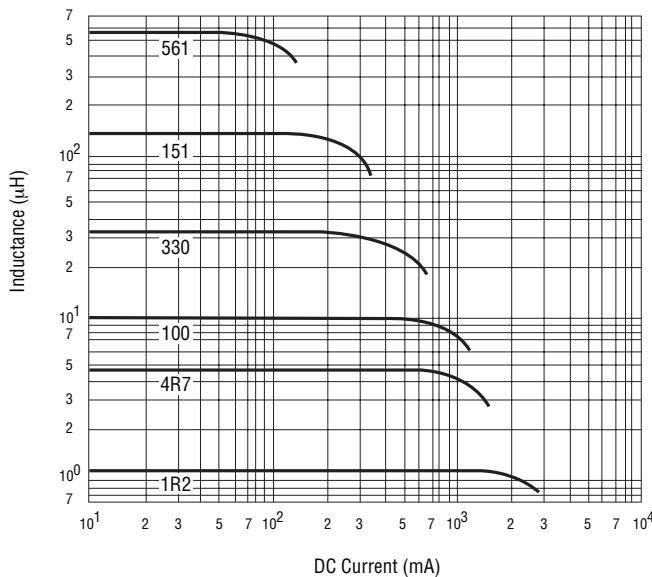
## Applications

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

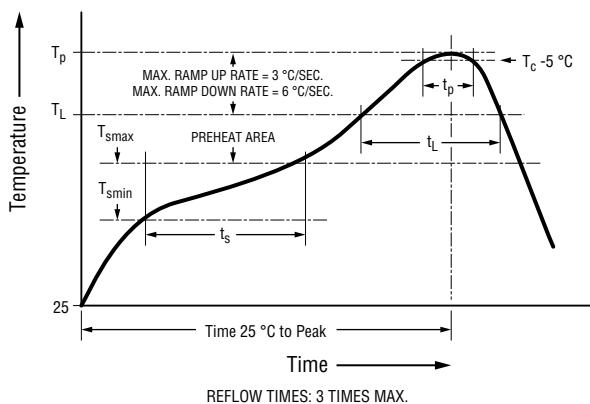
## SRR4028 Series - Shielded SMD Power Inductors

**BOURNS®**

### Inductance vs. Current



### Soldering Profile



| Profile Feature  | Pb Free Assembly   |
|--|--|
| Preheat  | <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time(<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul> |
| Ramp-up Rate ( $T_L$ to $T_p$ )  | 3 °C/second max.   |
| Liquidous temperature ( $T_L$ )  | 217 °C   |
| Time ( $t_L$ ) maintained above $T_L$  | 60-150 seconds   |
| Peak package body temperature ( $T_p$ )  | 250 °C   |
| Time ( $t_p$ ) at $T_c - 5^\circ\text{C}$<br>( $T_p$ should be equal to or less than $T_c$ ) | < 30 seconds   |
| Ramp-Down Rate ( $T_p$ to $T_L$ )  | 6 °C/second max.   |
| Time 25 °C to Peak Temperature   | 8 minutes max.   |

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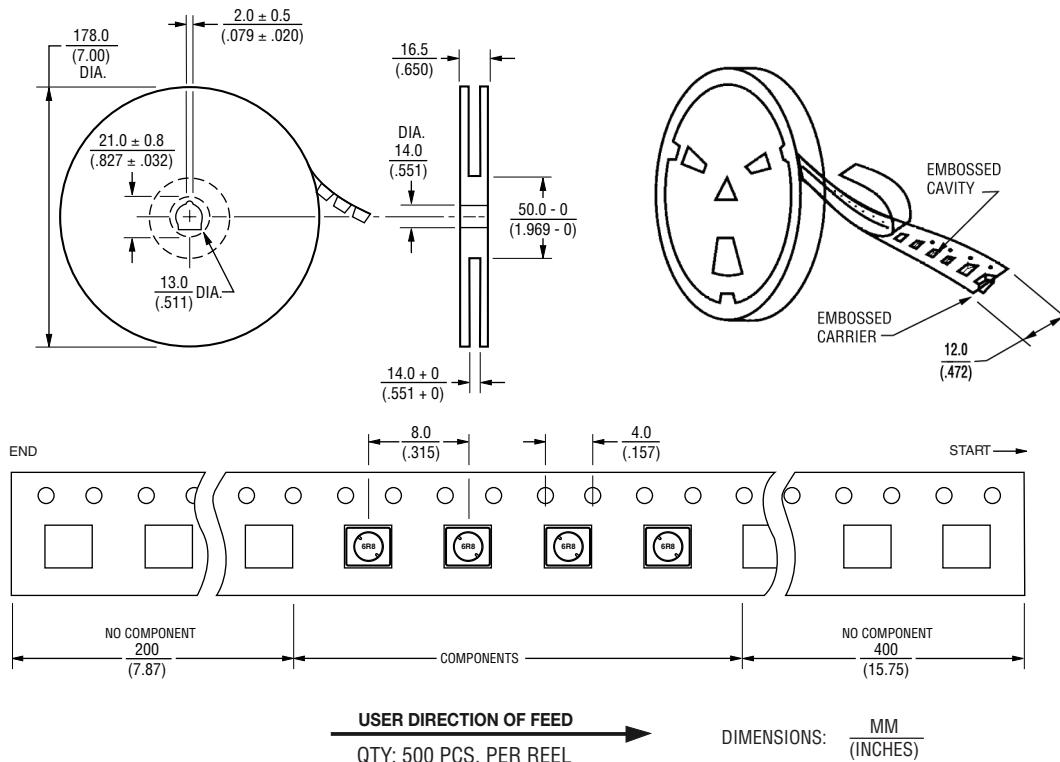
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# SRR4028 Series - Shielded SMD Power Inductors

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## Packaging Specifications



REV. 12/25

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