



## Features

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

## Applications

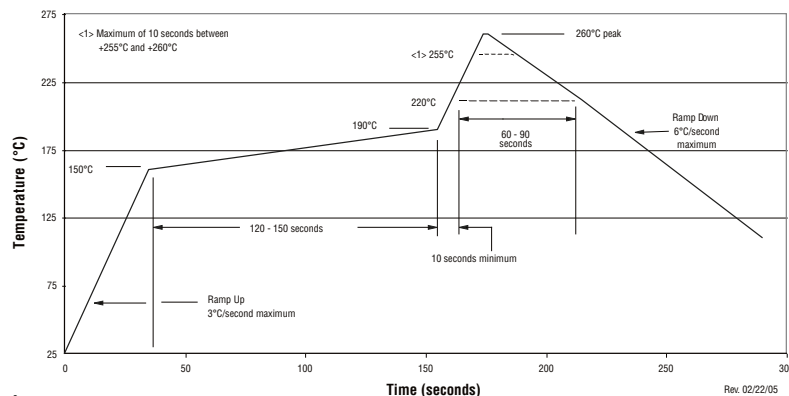
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# SRR5028 Series - Shielded SMD Power Inductors

## Electrical Characteristics

| Bourns<br>Part Number | Inductance<br>100 kHz |        | Q<br>Ref. | Test<br>Frequency<br>(MHz) | SRF<br>Typ.<br>(MHz) | DCR<br>Max.<br>(mΩ) | I rms<br>(A) | I sat<br>(A) |
|-----------------------|-----------------------|--------|-----------|----------------------------|----------------------|---------------------|--------------|--------------|
|                       | (μH)                  | Tol. % |           |                            |                      |                     |              |              |
| SRR5028-2R6Y          | 2.6                   | ±30    | 7         | 7.96                       | 77                   | 30                  | 3.00         | 2.70         |
| SRR5028-3R0Y          | 3.0                   | ±30    | 7         | 7.96                       | 65                   | 30                  | 2.80         | 2.50         |
| SRR5028-4R2Y          | 4.2                   | ±30    | 7         | 7.96                       | 51                   | 35                  | 2.50         | 2.20         |
| SRR5028-5R3Y          | 5.3                   | ±30    | 7         | 7.96                       | 45                   | 40                  | 2.30         | 1.90         |
| SRR5028-6R2Y          | 6.2                   | ±30    | 7         | 7.96                       | 39                   | 45                  | 2.20         | 1.80         |
| SRR5028-8R2Y          | 8.2                   | ±30    | 7         | 7.96                       | 34                   | 55                  | 2.10         | 1.60         |
| SRR5028-100Y          | 10                    | ±30    | 9         | 2.52                       | 30                   | 70                  | 1.50         | 1.40         |
| SRR5028-120Y          | 12                    | ±30    | 11        | 2.52                       | 28                   | 80                  | 1.46         | 1.25         |
| SRR5028-150Y          | 15                    | ±30    | 9         | 2.52                       | 22                   | 100                 | 1.37         | 1.15         |
| SRR5028-180Y          | 18                    | ±30    | 10        | 2.52                       | 20                   | 110                 | 1.25         | 1.10         |
| SRR5028-220Y          | 22                    | ±30    | 7         | 2.52                       | 20                   | 120                 | 1.15         | 1.00         |
| SRR5028-270Y          | 27                    | ±30    | 10        | 2.52                       | 17                   | 160                 | 1.05         | 0.90         |
| SRR5028-330Y          | 33                    | ±30    | 11        | 2.52                       | 13                   | 190                 | 0.90         | 0.78         |
| SRR5028-390Y          | 39                    | ±30    | 8         | 2.52                       | 13                   | 210                 | 0.86         | 0.72         |
| SRR5028-470Y          | 47                    | ±30    | 7         | 2.52                       | 13                   | 250                 | 0.82         | 0.65         |
| SRR5028-560Y          | 56                    | ±30    | 9         | 2.52                       | 12                   | 300                 | 0.72         | 0.60         |
| SRR5028-680Y          | 68                    | ±30    | 8         | 2.52                       | 11                   | 350                 | 0.62         | 0.56         |
| SRR5028-820Y          | 82                    | ±30    | 8         | 2.52                       | 9                    | 430                 | 0.52         | 0.50         |
| SRR5028-101Y          | 100                   | ±30    | 8         | 0.796                      | 8                    | 480                 | 0.45         | 0.45         |
| SRR5028-151Y          | 150                   | ±30    | 7         | 0.796                      | 7.5                  | 900                 | 0.33         | 0.35         |
| SRR5028-181Y          | 180                   | ±30    | 11        | 0.796                      | 6.3                  | 1000                | 0.32         | 0.31         |
| SRR5028-221Y          | 220                   | ±30    | 7         | 0.796                      | 6.5                  | 1250                | 0.30         | 0.30         |
| SRR5028-331Y          | 330                   | ±30    | 8         | 0.796                      | 5                    | 2000                | 0.20         | 0.20         |
| SRR5028-471Y          | 470                   | ±30    | 12        | 0.796                      | 5                    | 2500                | 0.30         | 0.23         |
| SRR5028-561Y          | 560                   | ±30    | 12        | 0.796                      | 4                    | 3920                | 0.14         | 0.14         |
| SRR5028-681Y          | 680                   | ±30    | 11        | 0.796                      | 3                    | 4300                | 0.13         | 0.14         |

## 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. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

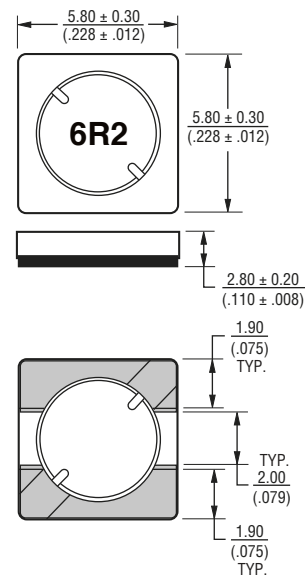
## General Specifications

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

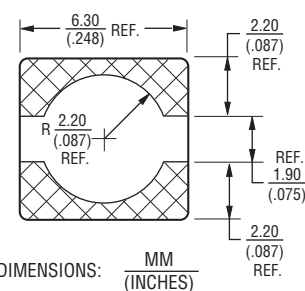
## Materials

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..... 400 pcs. per reel

## Product Dimensions



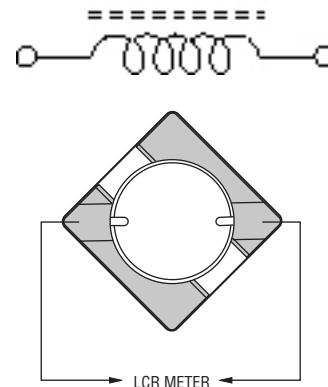
## Recommended Layout



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

**BOURNS®**

## Electrical Schematic



Technical drawing of a 35mm film carrier, showing end, side, and detail views with dimensions in inches and millimeters.

**End View Dimensions:**

- Overall Diameter: 178.0 (7.00) DIA.
- Inner Hole Diameter: 21.0 ± 0.8 (.827 ± .032)
- Inner Hole Diameter: 13.0 (.511) DIA.
- Top Flange Thickness: 2.0 ± 0.5 (.079 ± .020)

**Side View Dimensions:**

- Top Flange Thickness: 20.5 (.807)
- Inner Hole Diameter: DIA. 13.0 (.511)
- Carrier Thickness: 50.0 - 0 (1.969 - 0)
- Bottom Flange Thickness: 18.0 + 0 (.709 + 0)

**Detail View Dimensions:**

- EMBOSSED CAVITY
- EMBOSSED CARRIER
- Carrier Thickness: 16.0 (.629)

**Side View Assembly Dimensions:**

- END
- START
- Distance between components: 12.0 (.472)
- Distance between components: 4.0 (.157)
- NO COMPONENT 200 (7.87)
- COMPONENTS
- NO COMPONENT 400 (15.75)

**USER DIRECTION OF FEED** →

**QTY: 400 PCS. PER REEL**

**DIMENSIONS: MM (INCHES)**

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