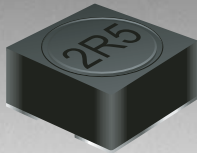


\*RoHS COMPLIANT



**BOURNS®**

## Features

- Height of 4.0 mm max.
- Current rating up to 3.5 A
- RoHS compliant\*

## Applications

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

# SRR6038 Series - Shielded SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 kHz |        | Q Ref. | Test Frequency (MHz) | SRF Typ. (MHz) | DCR Max. (mΩ) | I <sub>rms</sub> (A) | I <sub>sat</sub> (A) |
|-----------------|--------------------|--------|--------|----------------------|----------------|---------------|----------------------|----------------------|
|                 | (μH)               | Tol. % |        |                      |                |               |                      |                      |
| SRR6038-3R3Y    | 3.3                | ±30    | 9.8    | 7.96                 | 75.9           | 20            | 3.50                 | 3.60                 |
| SRR6038-5R0Y    | 5.0                | ±30    | 8.9    | 7.96                 | 42.6           | 24            | 2.90                 | 2.95                 |
| SRR6038-6R2Y    | 6.2                | ±30    | 9.0    | 7.96                 | 42.3           | 27            | 2.50                 | 2.60                 |
| SRR6038-7R4Y    | 7.4                | ±30    | 7.5    | 7.96                 | 32.9           | 31            | 2.30                 | 2.55                 |
| SRR6038-8R2Y    | 8.2                | ±30    | 7.4    | 7.96                 | 29.6           | 34            | 2.20                 | 2.45                 |
| SRR6038-8R7Y    | 8.7                | ±30    | 7.3    | 7.96                 | 27.5           | 34            | 2.20                 | 2.35                 |
| SRR6038-100Y    | 10                 | ±30    | 8.8    | 2.52                 | 24.9           | 38            | 2.00                 | 2.05                 |
| SRR6038-120Y    | 12                 | ±30    | 8.3    | 2.52                 | 17.9           | 53            | 1.70                 | 1.95                 |
| SRR6038-150Y    | 15                 | ±30    | 8.6    | 2.52                 | 18.0           | 57            | 1.60                 | 1.90                 |
| SRR6038-180Y    | 18                 | ±30    | 8.0    | 2.52                 | 13.8           | 92            | 1.50                 | 1.70                 |
| SRR6038-220Y    | 22                 | ±30    | 8.8    | 2.52                 | 13.9           | 96            | 1.30                 | 1.60                 |
| SRR6038-270Y    | 27                 | ±30    | 7.7    | 2.52                 | 12.5           | 109           | 1.20                 | 1.30                 |
| SRR6038-330Y    | 33                 | ±30    | 8.6    | 2.52                 | 12.5           | 124           | 1.10                 | 1.20                 |
| SRR6038-390Y    | 39                 | ±30    | 8.3    | 2.52                 | 11.8           | 138           | 1.00                 | 1.10                 |
| SRR6038-470Y    | 47                 | ±30    | 8.5    | 2.52                 | 10.4           | 155           | 0.95                 | 1.00                 |
| SRR6038-560Y    | 56                 | ±30    | 8.2    | 2.52                 | 8.8            | 202           | 0.85                 | 0.90                 |
| SRR6038-680Y    | 68                 | ±30    | 7.4    | 2.52                 | 7.5            | 234           | 0.75                 | 0.87                 |
| SRR6038-820Y    | 82                 | ±30    | 7.6    | 2.52                 | 7.6            | 324           | 0.70                 | 0.75                 |
| SRR6038-101Y    | 100                | ±30    | 6.7    | 0.796                | 6.2            | 358           | 0.65                 | 0.68                 |

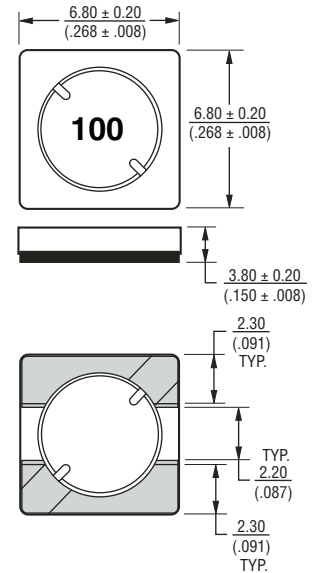
## General Specifications

Test Voltage .....0.1 V, 100 KHz  
 Reflow Soldering .....230 °C; 50 sec max.  
 Operating Temperature ...-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature...-40 °C to +125 °C  
 Resistance to Soldering Heat  
 .....260 °C for 10 sec.

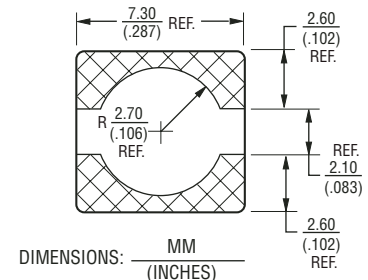
## Materials

Core Material .....Ferrite  
 Wire .....Enamelled Copper  
 Adhesive .....Epoxy Resin  
 Terminal .....Ag/Ni/Sn  
 Rated Current .....Ind. drop of 35 % typ.  
 at I<sub>sat</sub>  
 Temperature Rise .....30 °C typ. at I<sub>rms</sub>  
 Packaging .....1000 pcs. per reel

## Product Dimensions

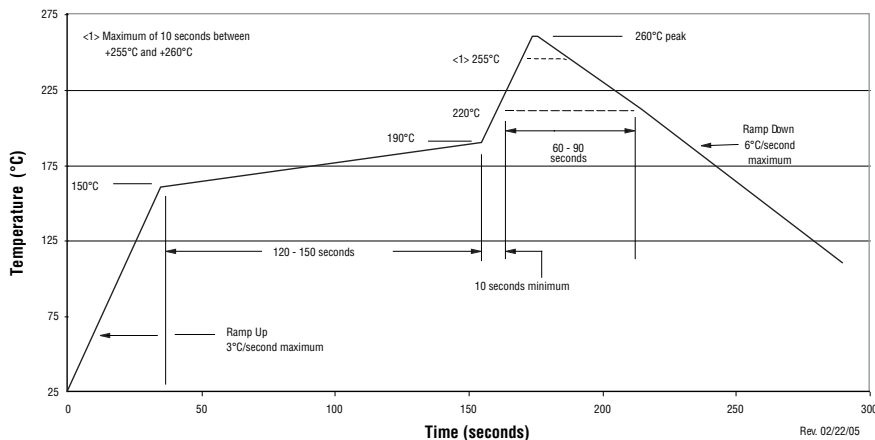


## Recommended Layout

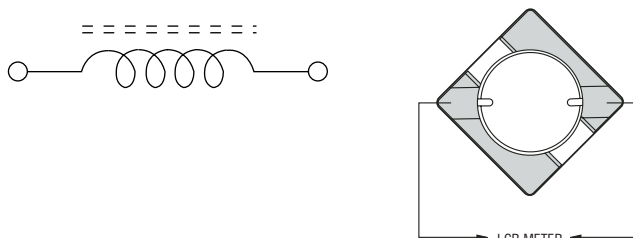


\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

## Soldering Profile



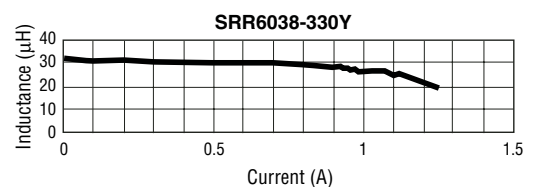
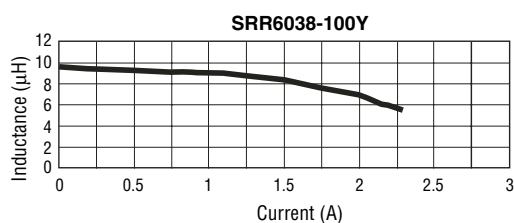
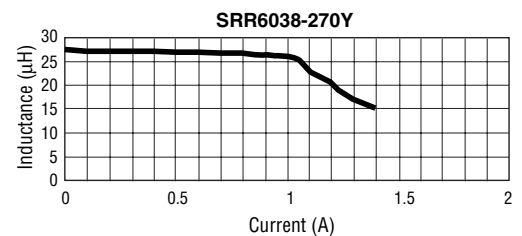
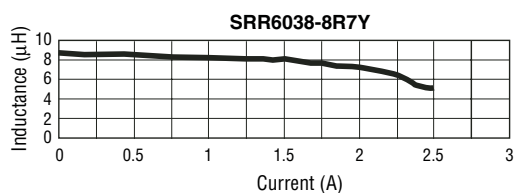
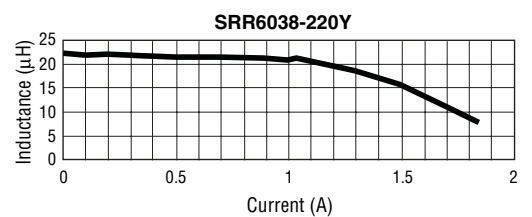
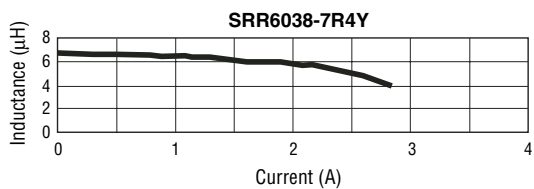
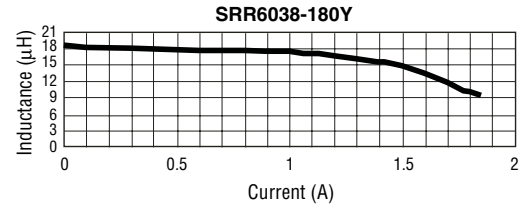
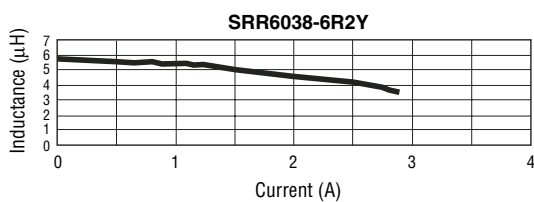
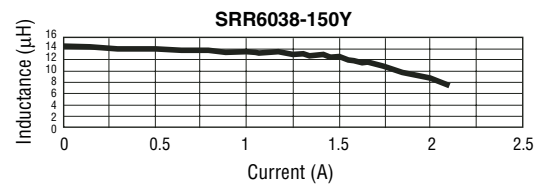
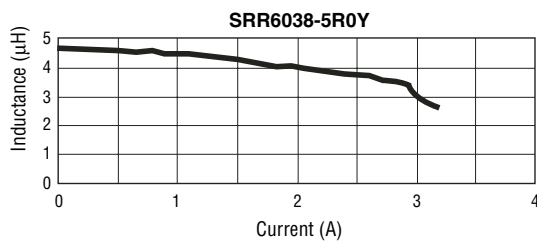
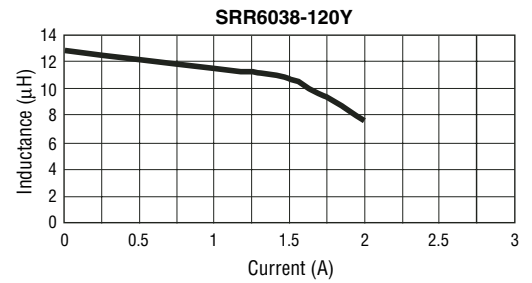
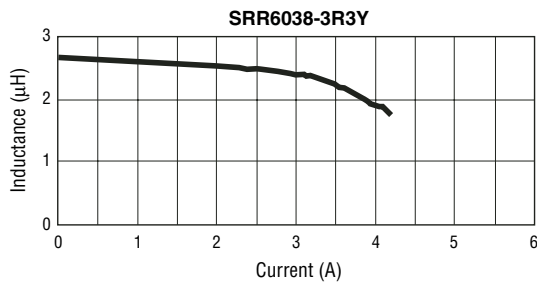
## Electrical Schematic



# SRR6038 Series - Shielded SMD Power Inductors

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## Inductance vs. Current

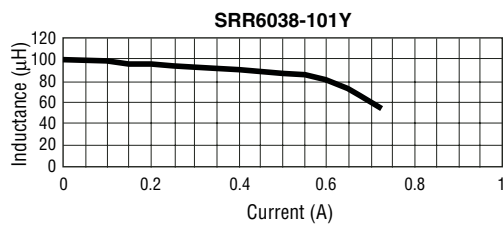
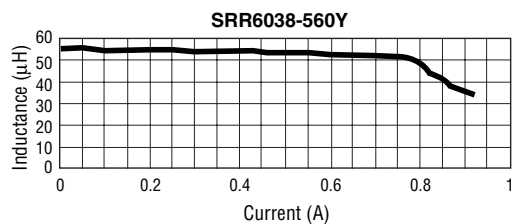
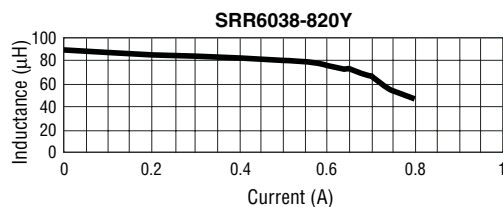
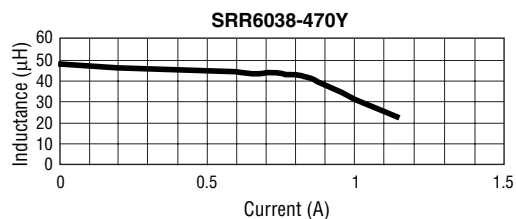
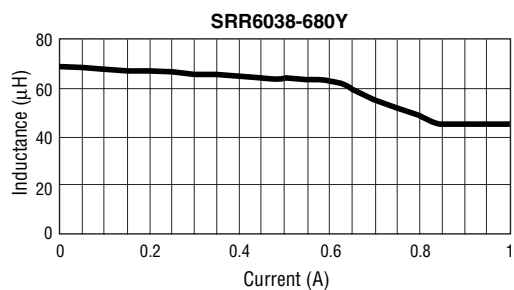
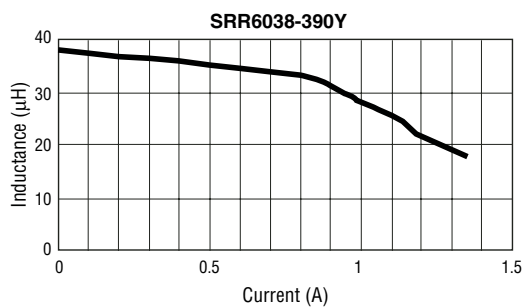


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## SRR6038 Series - Shielded SMD Power Inductors

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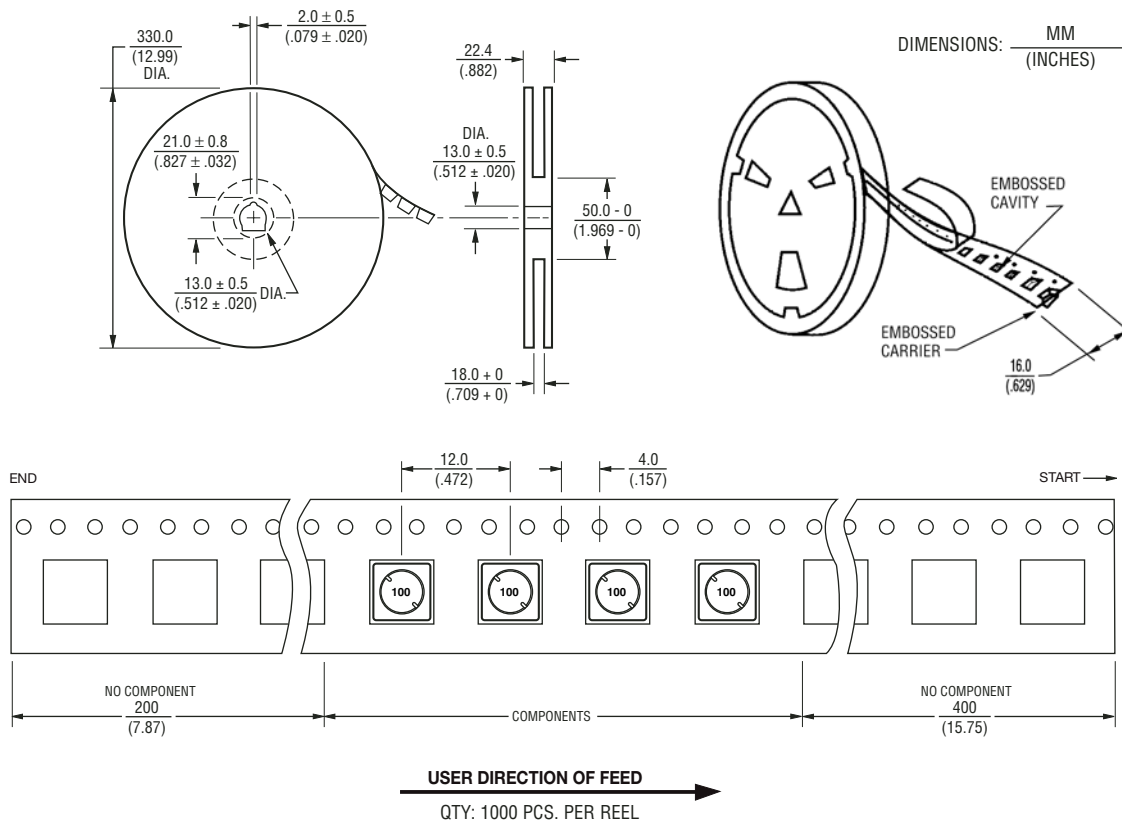
### Inductance vs. Current



# SRR6038 Series - Shielded SMD Power Inductors

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## Packaging Specifications



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Bourns:

[SRR6038-100Y](#) [SRR6038-101Y](#) [SRR6038-120Y](#) [SRR6038-150Y](#) [SRR6038-180Y](#) [SRR6038-220Y](#) [SRR6038-270Y](#)  
[SRR6038-390Y](#) [SRR6038-3R3Y](#) [SRR6038-560Y](#) [SRR6038-5R0Y](#) [SRR6038-680Y](#) [SRR6038-6R2Y](#) [SRR6038-7R4Y](#) [SRR6038-820Y](#) [SRR6038-8R7Y](#) [SRR6038-4R7Y](#) [SRR6038-6R8Y](#) [SRR6038-330Y](#) [SRR6038-470Y](#)  
[SRR6038-8R2Y](#)