



**THE DATASHEET OF  
SRR6038-270Y**





### Features

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

### Applications

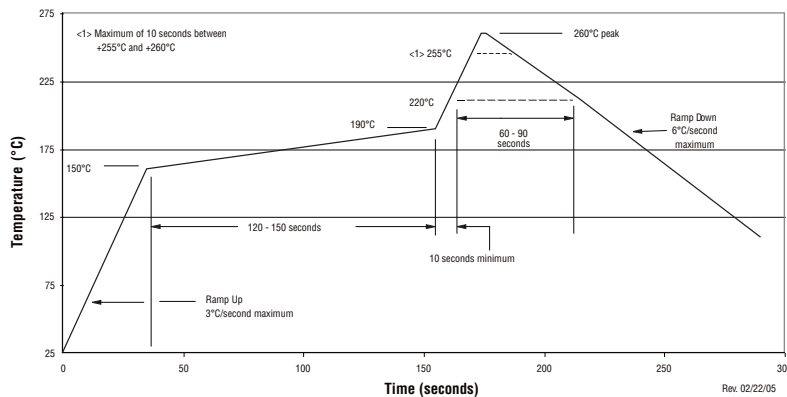
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

## SRR6038 Series - Shielded SMD Power Inductors

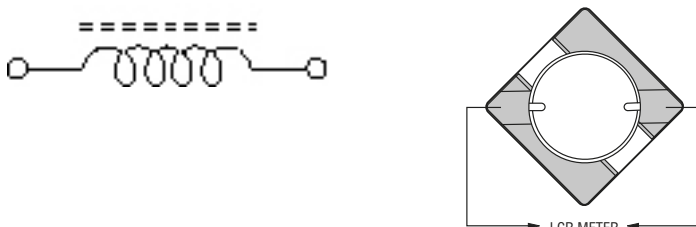
### Electrical Characteristics

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. %						
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

### Soldering Profile



### Electrical Schematic



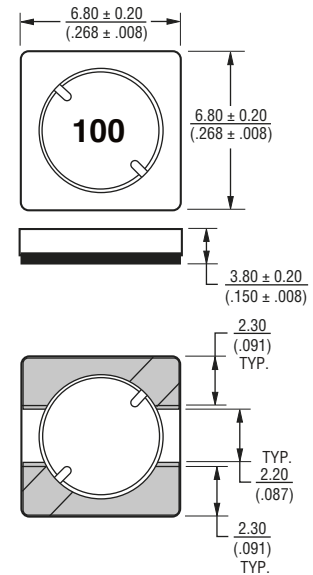
### General Specifications

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

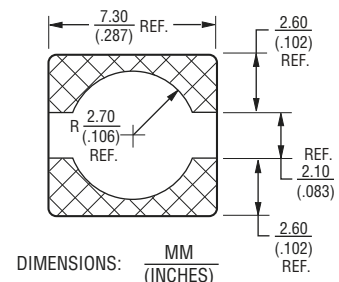
### Materials

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..... 1000 pcs. per reel

### Product Dimensions



### Recommended Layout



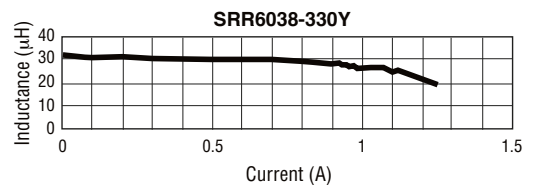
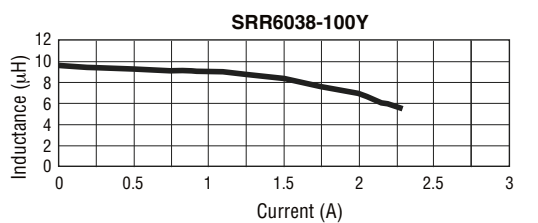
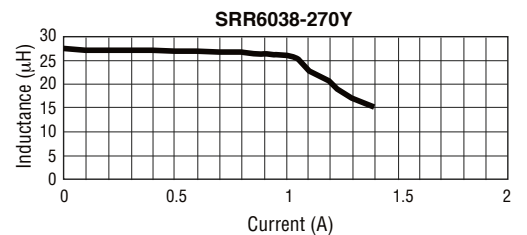
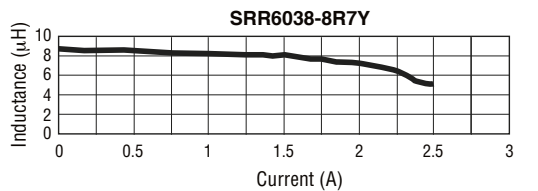
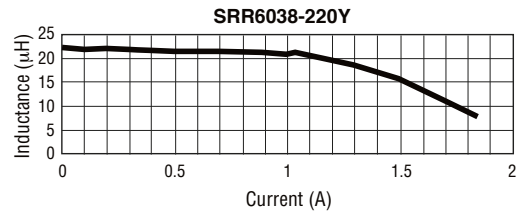
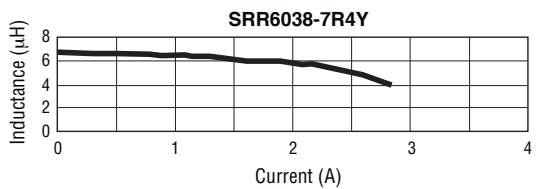
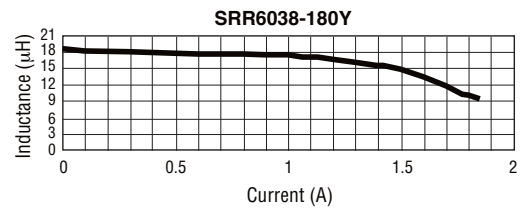
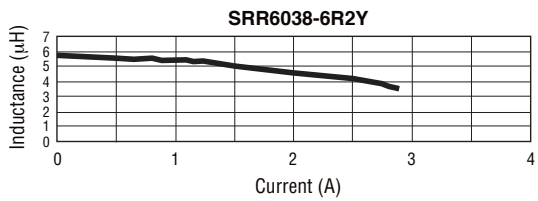
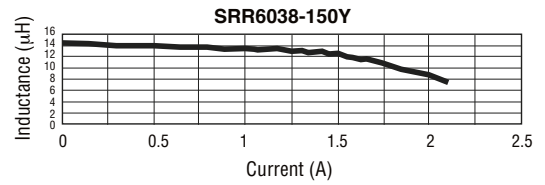
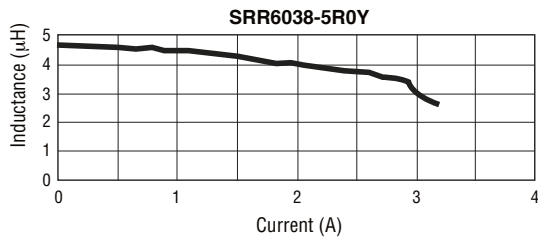
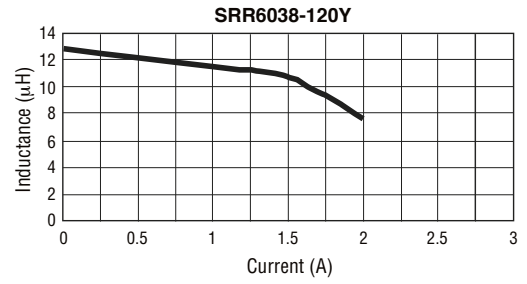
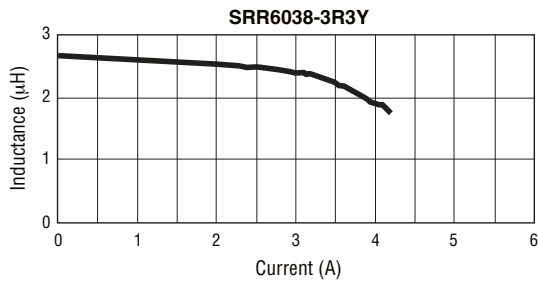
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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)

# SRR6038 Series - Shielded SMD Power Inductors

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## Inductance vs. Current

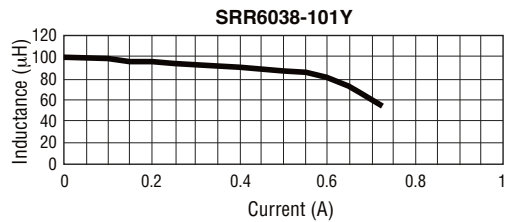
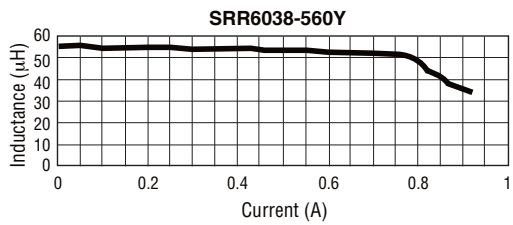
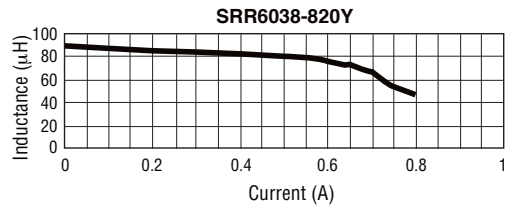
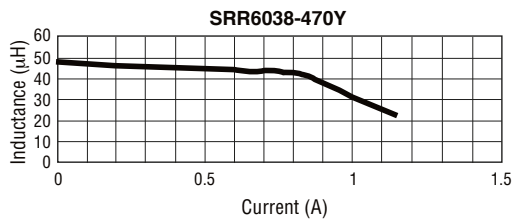
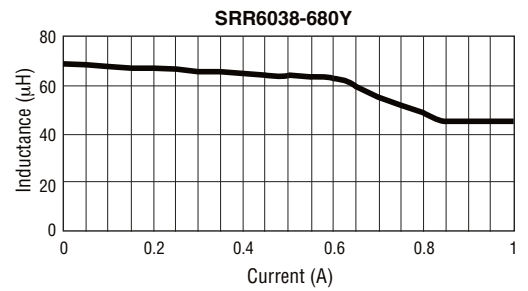
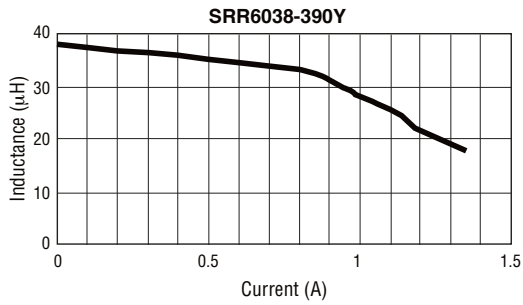


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## Inductance vs. Current



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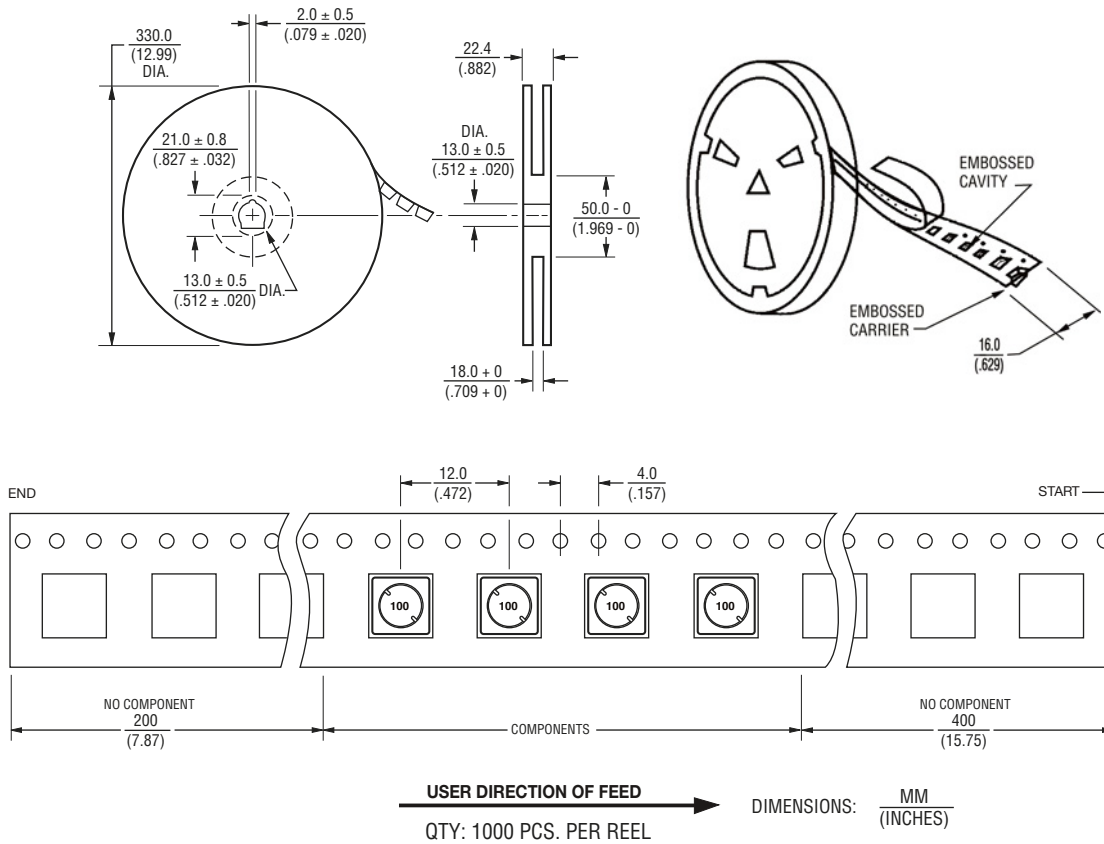
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## Packaging Specifications



REV. 03/18

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