

Features

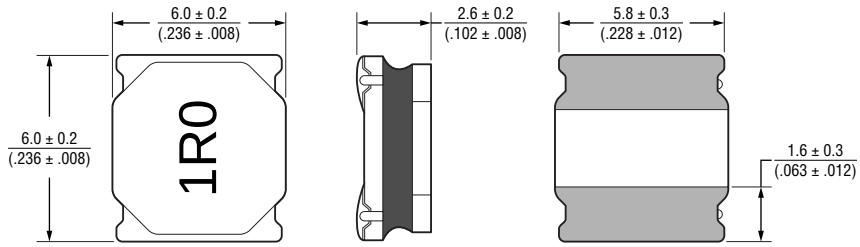
- Semi-shielded construction
- Inductance range: 0.9 to 120 µH
- Rated current up to 7.8 A
- RoHS compliant*
- Halogen free**

SRN6028C Series – Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V L (µH)	Inductance @ 100 kHz / 1 V Tol. %	Q @ 100 kHz / 1 V Typ.	SRF (MHz) Typ.	DCR (mΩ) ± 20 %	Irms (A) Typ.	Isat (A) Typ.
SRN6028C-R90Y	0.9	30	20	120	8.2	7.8	8.0
SRN6028C-1R0Y	1.0	30	15	110	10	5.2	5.75
SRN6028C-1R5Y	1.5	30	15	98	14	4.95	5.3
SRN6028C-2R2M	2.2	20	15	60	18	4.50	5.0
SRN6028C-3R0Y	3.0	30	15	57	22.5	3.9	4.5
SRN6028C-3R3M	3.3	20	15	56	24	3.6	4.3
SRN6028C-3R9M	3.9	20	15	54	28	3.3	3.9
SRN6028C-4R7M	4.7	20	15	50	30	3.1	3.2
SRN6028C-6R0M	6.0	20	15	45	42	2.8	3
SRN6028C-6R2M	6.2	20	15	45	42	2.8	3
SRN6028C-6R8M	6.8	20	15	40	47	2.5	2.85
SRN6028C-100M	10	20	15	30	65	2	2.1
SRN6028C-150M	15	20	15	25	98	1.8	2
SRN6028C-220M	22	20	15	22	138	1.5	1.6
SRN6028C-330M	33	20	15	16	200	1.3	1.4
SRN6028C-470M	47	20	15	13	280	1.06	1.15
SRN6028C-680M	68	20	15	10	420	0.81	1
SRN6028C-101M	100	20	15	8	605	0.72	0.8
SRN6028C-121M	120	20	20	7	750	0.68	0.72

Product Dimensions



Note: Top and side view dimensions do not include termination.
For maximum overall dimensions including termination, add 0.1 mm.

DIMENSIONS: MM (INCHES)

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature
(Component on board)
..... -40 °C to +125 °C
Temperature Rise ... 40 °C at rated Irms[1]
Rated Current
..... Inductance drops 30 % at Isat
Moisture Sensitivity Level 1
ESD Classification (HBM) ..... N/A

[1] Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Users should verify part temperature in their end applications.

Materials

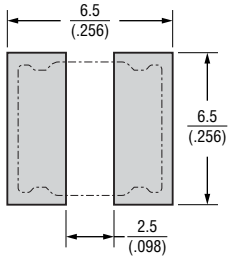
Core ..... Ferrite
Wire ..... Enameled copper
Terminal Finish ..... Ag/Ni/Sn
Coating ..... Magnetic resin
Packaging ..... 1500 pcs. per 13-inch reel

How to Order

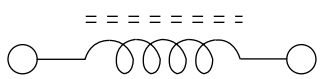
SRN6028C - R90Y

Model
Value Code (see table)

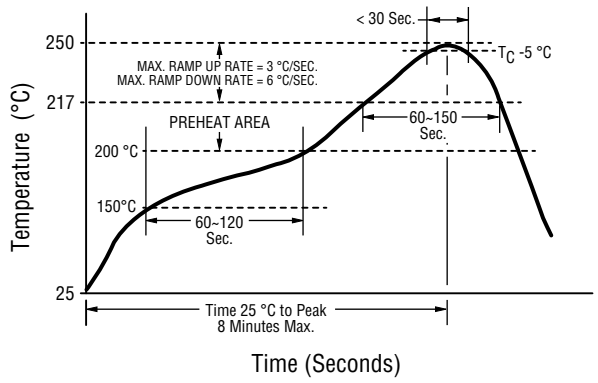
Recommended Layout



Electrical Schematic



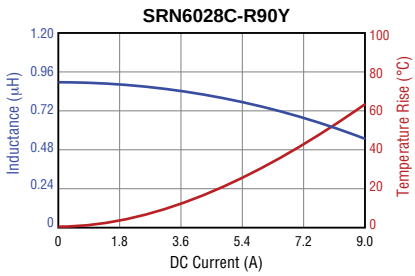
Soldering Profile

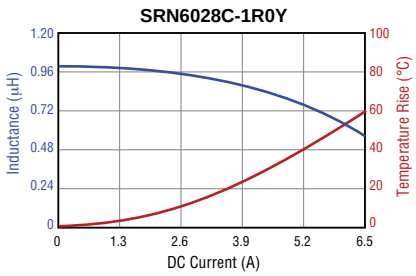


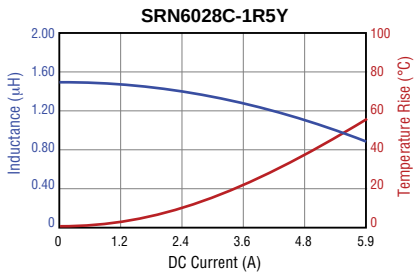
REFLOW TIMES: 3 TIMES MAX.

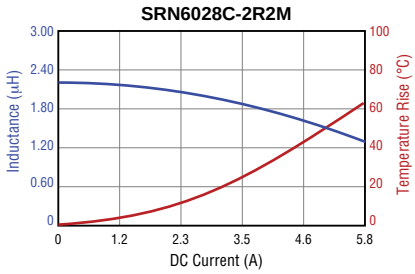
Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	250 °C
Time within 5 °C of Actual Peak Temperature (t_p)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

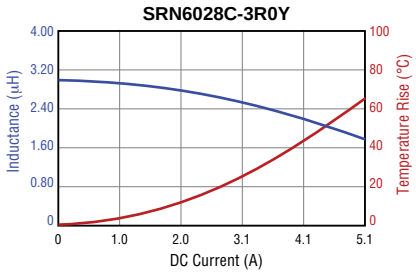
L vs. I Charts

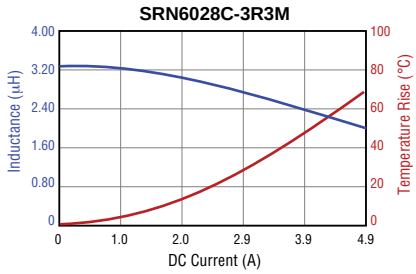


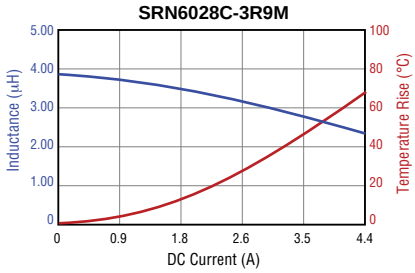


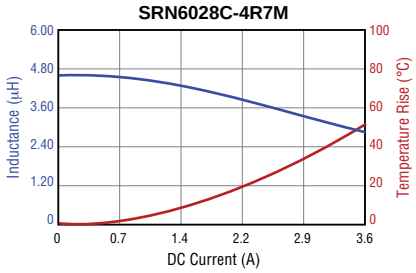


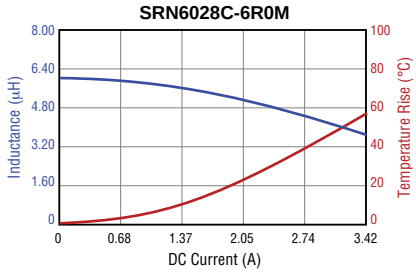






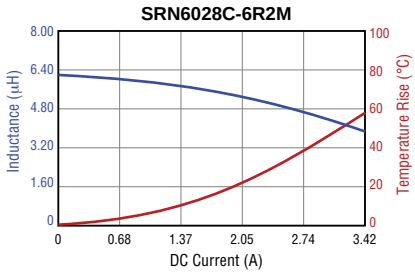


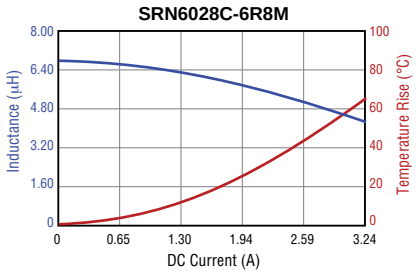


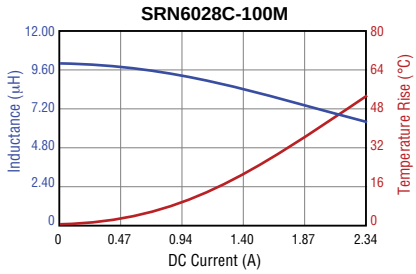


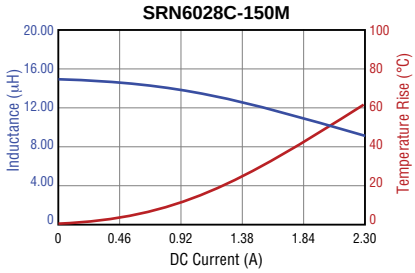
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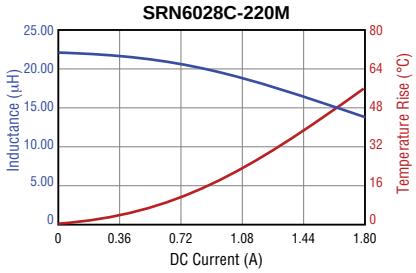
L vs. I Charts (continued)

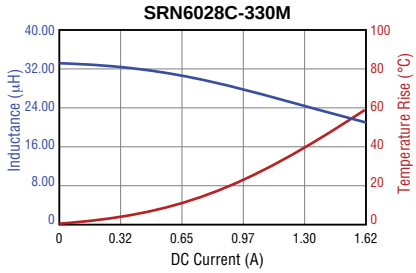


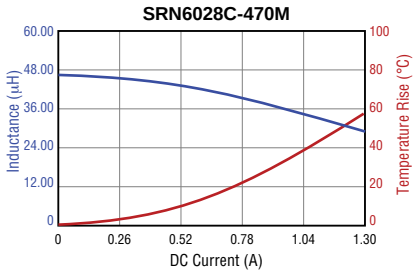


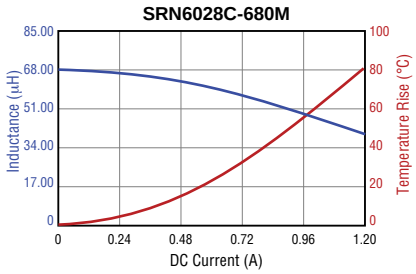


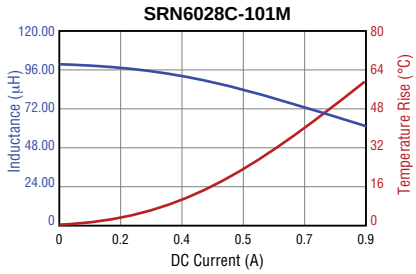


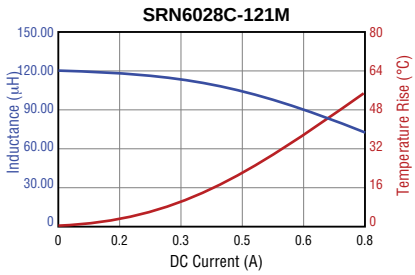






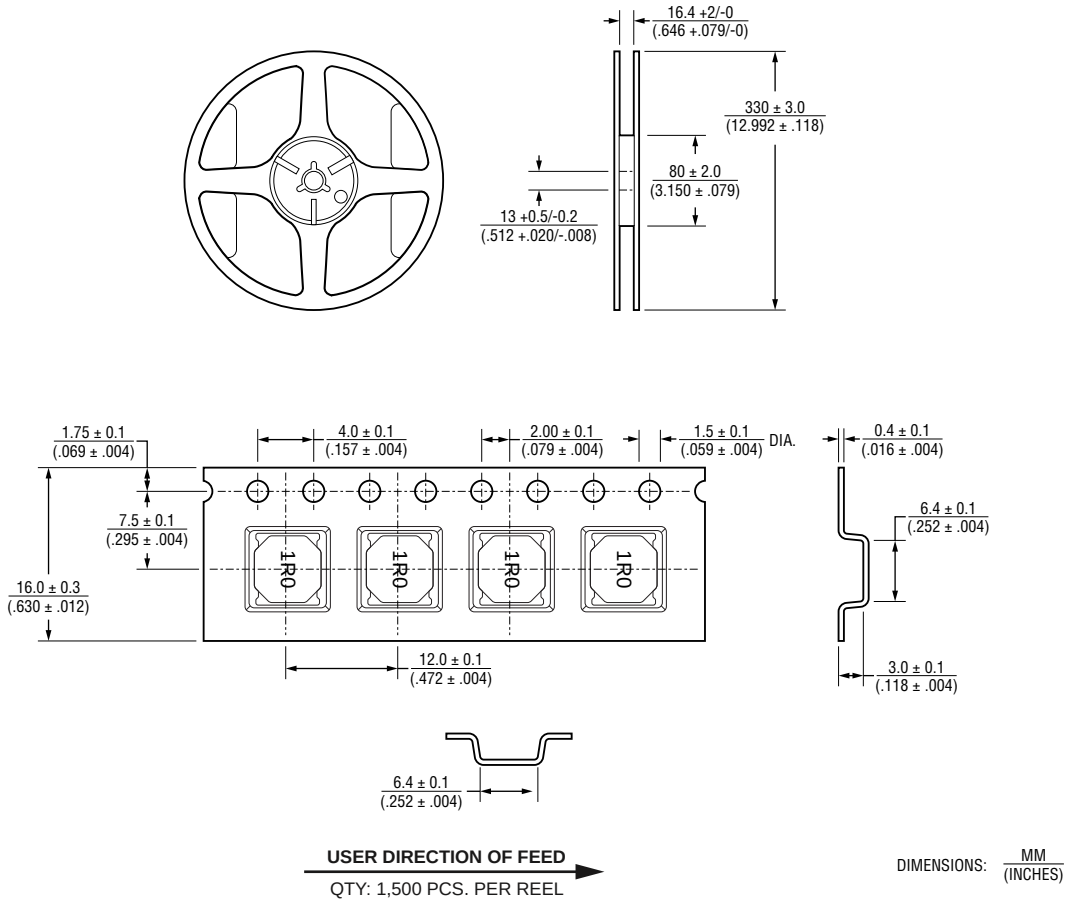






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