Features

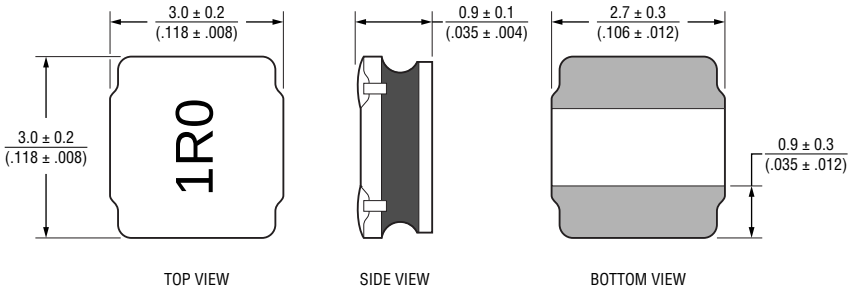
- Semi-shielded construction
- Miniature size
- Low profile: 1.0 mm
- Inductance range: 1 to 47 µH
- Rated current up to 3.4 A
- RoHS compliant* and halogen free**

SRN3010C Series – Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q @ 100 kHz / 1 V Typ.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (µH)	Tol. %						
SRN3010C-1R0M	1.0	20	10	145	56	67	3.4	2.4
SRN3010C-1R2M	1.2	20	10	135	60	72	3.1	2.1
SRN3010C-1R5M	1.5	20	10	115	75	90	2.8	1.9
SRN3010C-2R2M	2.2	20	10	101	100	120	2.6	1.8
SRN3010C-3R3M	3.3	20	10	86	130	156	2.2	1.4
SRN3010C-4R7M	4.7	20	10	72	190	228	1.8	1.3
SRN3010C-6R8M	6.8	20	10	55	260	312	1.5	1.1
SRN3010C-8R2M	8.2	20	10	45	330	396	1.3	1.0
SRN3010C-100M	10	20	10	40	420	504	1.1	0.8
SRN3010C-150M	15	20	10	33	565	678	0.9	0.65
SRN3010C-220M	22	20	10	25	760	912	0.7	0.5
SRN3010C-330M	33	20	10	23	1270	1524	0.6	0.45
SRN3010C-470M	47	20	10	20	1900	2280	0.45	0.36

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)

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

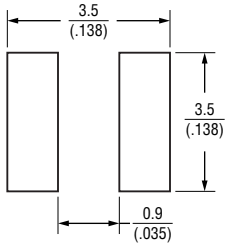
Core ..... Ferrite
Wire ..... Enameled copper
Terminal Finish ..... Ag/Ni/Sn
Coating ..... Magnetic resin
Packaging ..... 3000 pcs. per 7-inch reel

How to Order

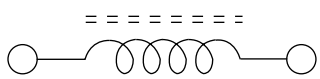
SRN3010C - 1R0M

Model
Value Code (see table)

Recommended Layout



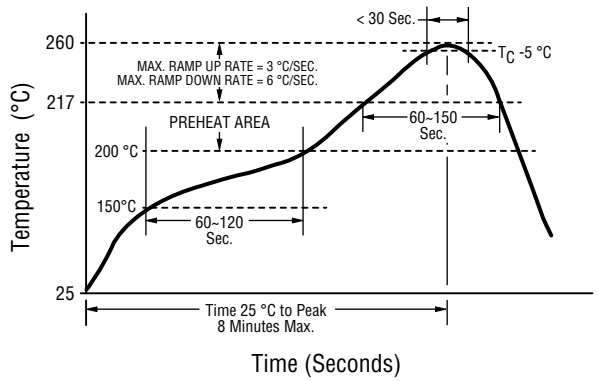
Electrical Schematic



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.

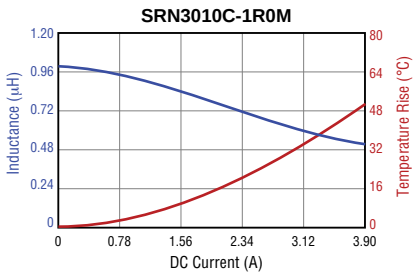
Soldering Profile

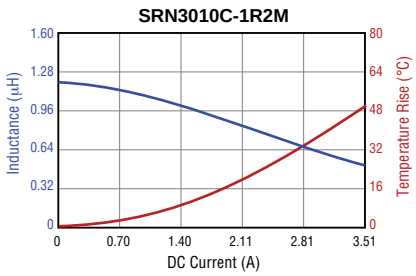


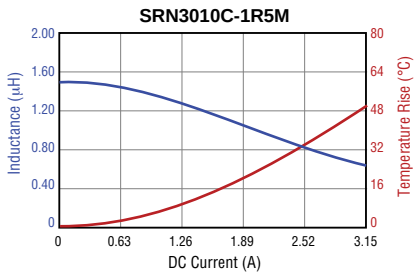
REFLOW TIMES: 3 TIMES MAX.

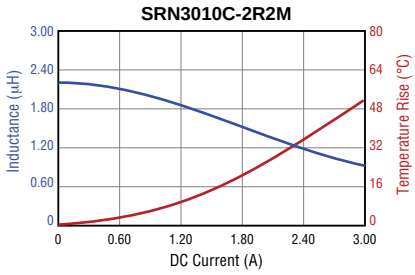
Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	260 °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.

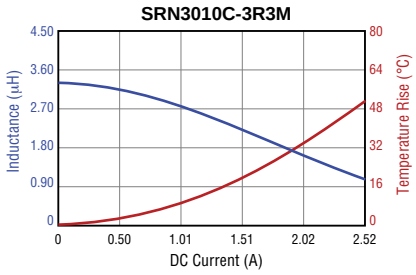
L vs. I Charts

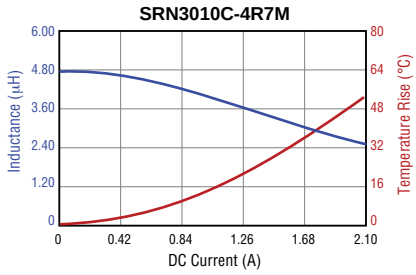


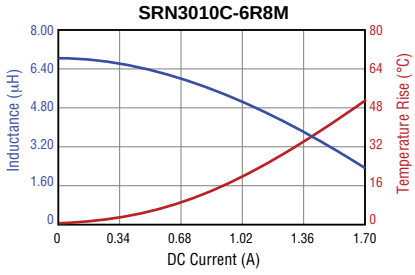


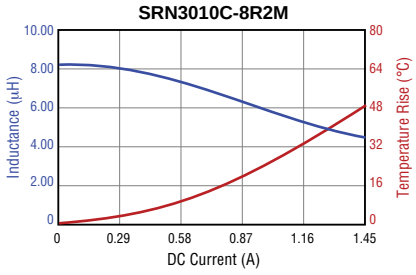


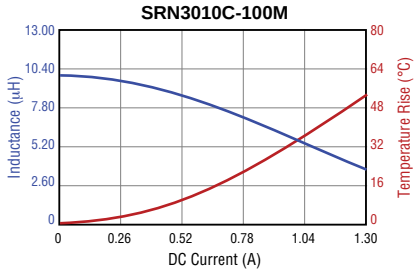






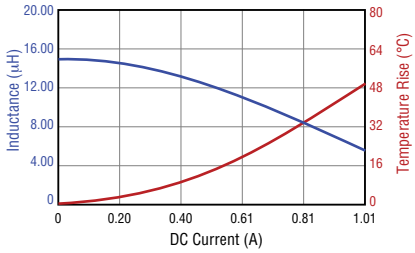




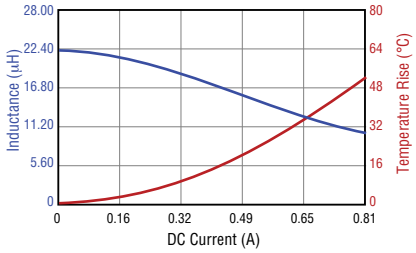


L vs. I Charts (continued)

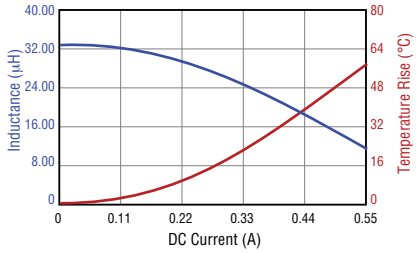
SRN3010C-150M



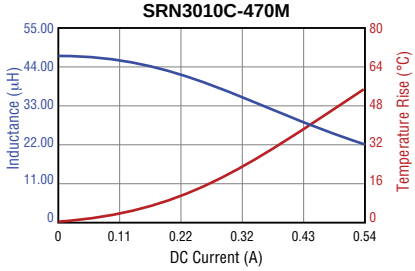
SRN3010C-220M



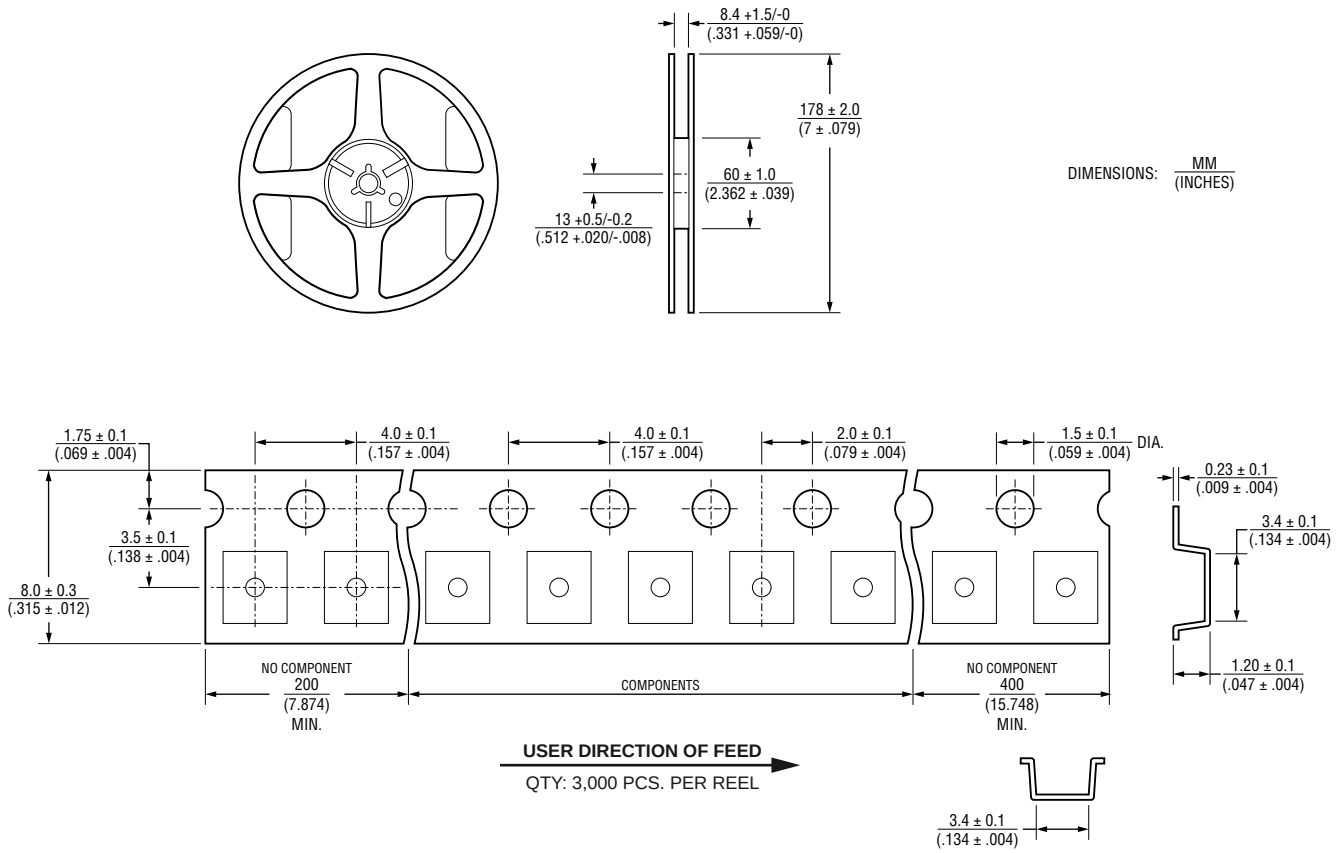
SRN3010C-330M



SRN3010C-470M



Packaging Specifications



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