



## Features

- Shielded construction for low radiation
- Low profile: 1.4 mm
- RoHS compliant\* and halogen free\*\*

## Applications

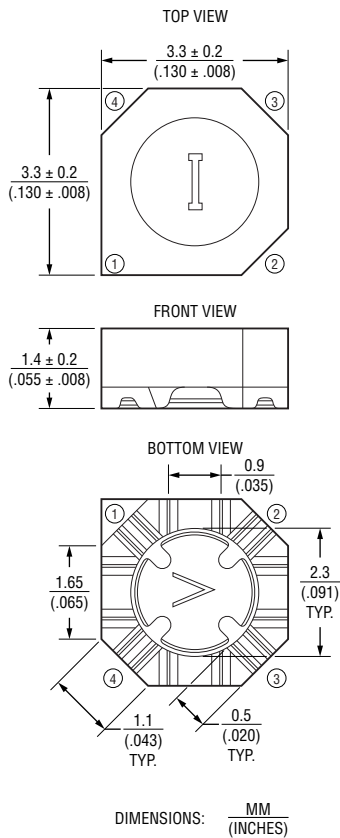
- SEPIC topology
- Power supplies

# SRF3015 Series – Dual-Winding Shielded Power Inductors

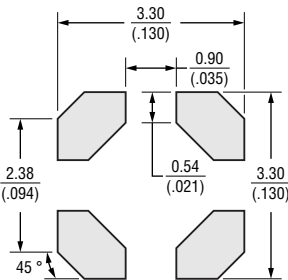
### Electrical Specifications @ 25 °C

Bourns Part Number	L1, L2 @ 100 kHz / 0.1 V (μH)		DCR1, DCR2 (Ω)		SRF (MHz) Typ.	LK (μH) Typ.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.	Marking
	L (μH)	Tol. (%)	Typ.	Max.					
SRF3015-1R0Y	1.00	30	0.09	0.12	160	0.09	1.10	1.65	A
SRF3015-1R5Y	1.50		0.13	0.17	140	0.11	0.95	1.35	B
SRF3015-2R2Y	2.20		0.21	0.27	110	0.14	0.75	1.10	C
SRF3015-3R3Y	3.30		0.29	0.37	90	0.16	0.64	0.92	D
SRF3015-4R7Y	4.70		0.39	0.51	79	0.18	0.55	0.77	E
SRF3015-6R8Y	6.80		0.55	0.72	58	0.22	0.45	0.64	F
SRF3015-100Y	10.0		0.95	1.25	48	0.28	0.35	0.53	G
SRF3015-150Y	15.0		1.45	1.90	35	0.37	0.28	0.43	H
SRF3015-220Y	22.0		1.70	2.00	30	0.55	0.26	0.37	I

### Product Dimensions



### Recommended Layout



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

### How to Order

**SRF3015 - 1R0 Y**

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_  
 Tolerance \_\_\_\_\_

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### Additional Information

Click these links for more information:



### General Specifications

Operating Temperature

..... -40 °C to +125 °C  
 (Temperature rise included)

Storage Temperature... -40 °C to +125 °C

Temperature Rise

..... 40 °C typ. at rated I<sub>rms</sub>

Rated Current

..... Inductance drops 30 % at I<sub>sat</sub>

Hi-pot

(N1-N2) ... 100 VAC/60Hz, 3 mA, 1 min.

Moisture Sensitivity Level..... 1

ESD Classification (HBM) ..... N/A

### Materials

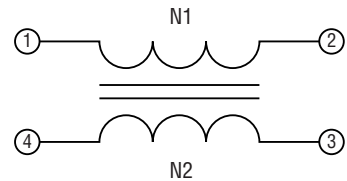
Core Material ..... Ferrite

Wire ..... Enameled copper

Terminal Finish ..... Sn

Packaging..... 1,200 pcs. per 7-inch reel

### Schematic



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

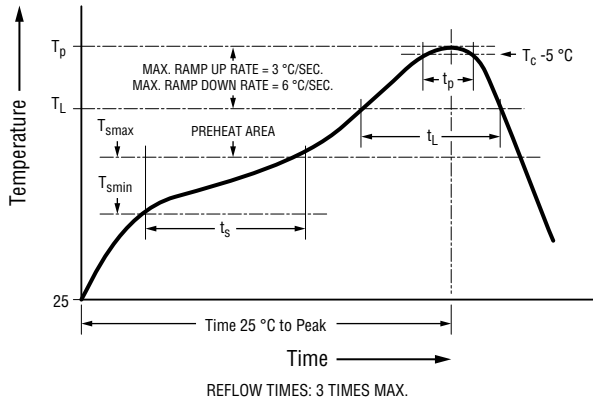
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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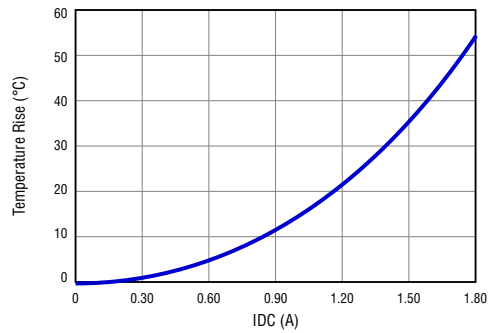
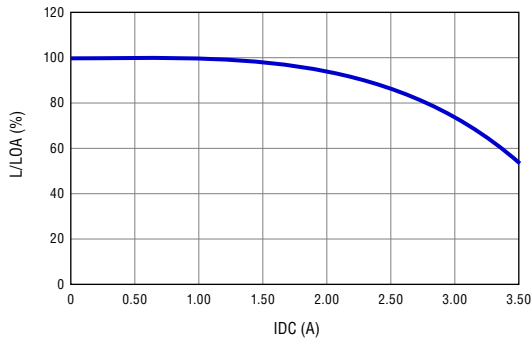
## Soldering Profile



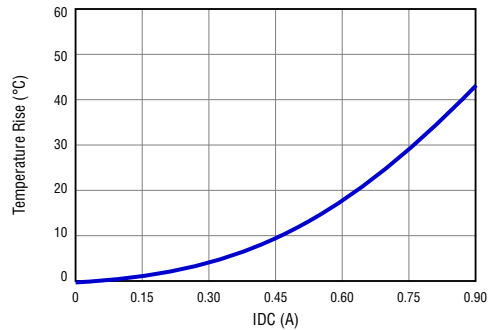
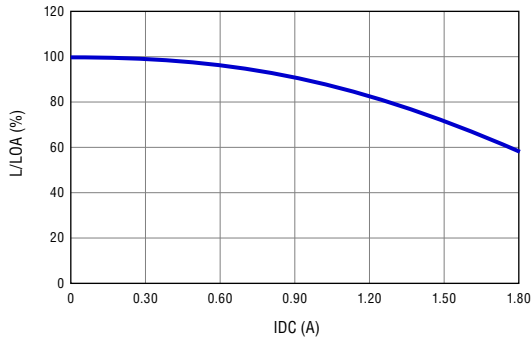
Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time (<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
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 ( $t_p$ ) at $T_c - 5^\circ\text{C}$ ( $T_p$ should be equal to or less than $T_c$ )	< 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

### SRF3015-1R0Y



### SRF3015-4R7Y



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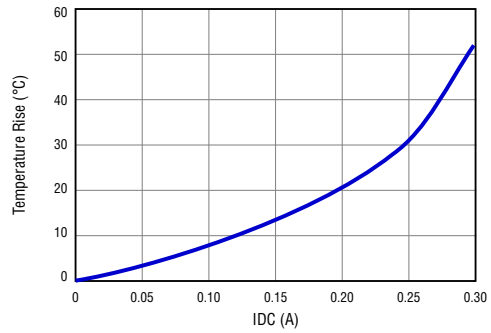
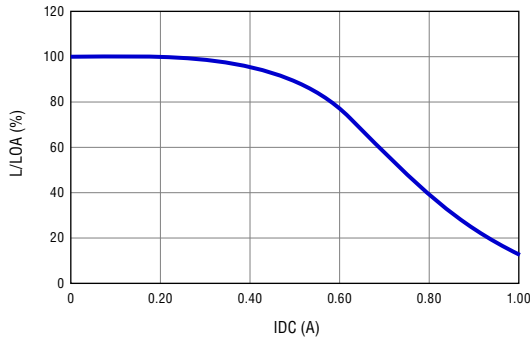
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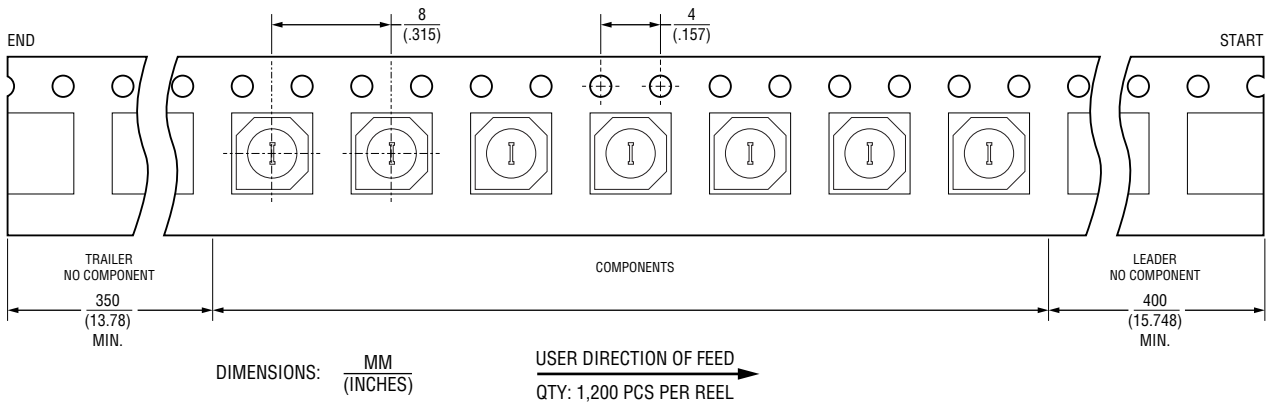
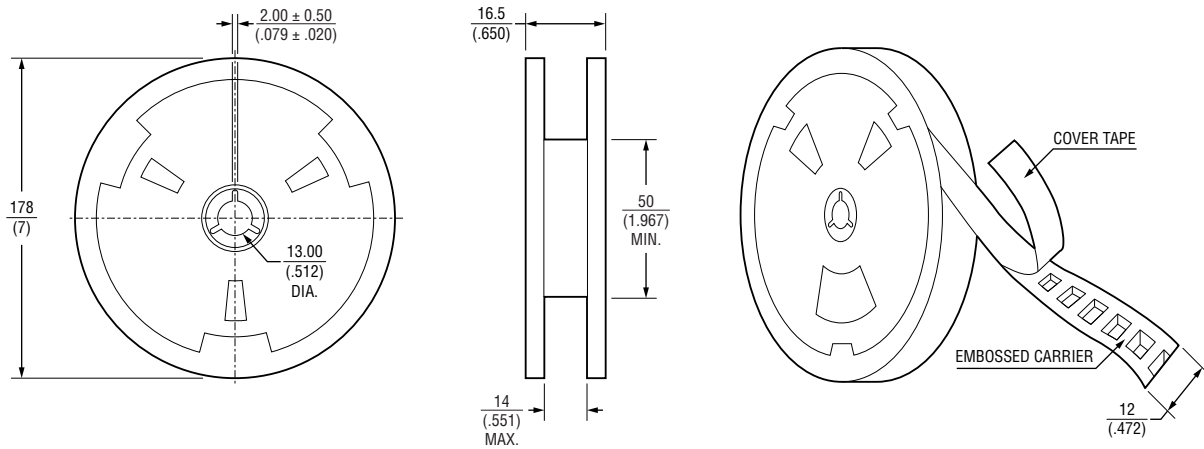


## L vs I Charts (continued)

### SRF3015-220Y



## Packaging Specifications



REV. 09/24

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