Features

- Shielded construction
- Inductance range: 0.68 to 330 µH
- Heating current up to 9.5A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

SRR1050A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz/0.1V		SRF (MHz) Typ.	DCR (Ω)		I rms (A)	I sat (A)
	L (µH)	Tol. (%)		Typ.	Max.		
SRR1050A-R68Y	0.68	± 30	110	0.0045	0.0055	9.50	13.5
SRR1050A-1R2Y	1.2	± 30	85	0.0058	0.007	8.30	10.5
SRR1050A-2R2Y	2.2	± 30	53	0.0071	0.009	7.20	8.20
SRR1050A-3R3Y	3.3	± 30	40	0.0086	0.011	6.50	7.80
SRR1050A-4R2Y	4.2	± 30	29	0.0104	0.014	6.10	6.40
SRR1050A-6R8Y	6.8	± 30	27	0.0151	0.019	5.40	5.40
SRR1050A-8R2Y	8.2	± 30	21	0.0181	0.022	5.00	4.85
SRR1050A-100Y	10	± 30	16.5	0.023	0.031	4.50	4.45
SRR1050A-120Y	12	± 30	15	0.026	0.035	3.80	4.00
SRR1050A-150Y	15	± 30	14	0.035	0.047	3.40	3.60
SRR1050A-180Y	18	± 30	11	0.038	0.051	3.10	3.20
SRR1050A-220Y	22	± 30	10.5	0.046	0.062	2.90	2.95
SRR1050A-270Y	27	± 30	10	0.057	0.077	2.60	2.70
SRR1050A-330Y	33	± 30	9	0.069	0.093	2.50	2.40
SRR1050A-390Y	39	± 30	6.8	0.079	0.106	2.25	2.30
SRR1050A-470Y	47	± 30	5.9	0.094	0.127	2.00	2.00
SRR1050A-560Y	56	± 30	5.5	0.124	0.160	1.90	1.90
SRR1050A-680Y	68	± 30	5	0.138	0.208	1.60	1.65
SRR1050A-820Y	82	± 30	4.5	0.150	0.230	1.45	1.50
SRR1050A-101Y	100	± 30	4.2	0.179	0.255	1.35	1.35
SRR1050A-121Y	120	± 30	3.8	0.213	0.305	1.18	1.28
SRR1050A-151Y	150	± 30	3.6	0.253	0.370	1.10	1.12
SRR1050A-181Y	180	± 30	3.4	0.307	0.420	1.00	1.04
SRR1050A-221Y	220	± 30	3	0.373	0.500	0.94	0.94
SRR1050A-271Y	270	± 30	2.4	0.491	0.675	0.80	0.84
SRR1050A-331Y	330	± 30	2	0.613	0.815	0.73	0.75

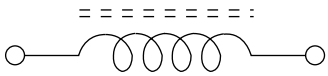
General Specifications

Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature .. -40 °C to +125 °C
Temperature Rise
.....40 °C typ. at rated Irms
Rated Current
..... Inductance drops 35 % at Isat
Failure In Time (FIT).....24.7/10^9 hours
Mean Time Between Failures (MTBF)
.....40.4 x 10^6 hours

Materials

Core.....Ferrite
Wire .....Enameled copper
Terminal Finish .....Sn
Packaging..... 700 pcs. per 13-inch reel

Electrical Schematic

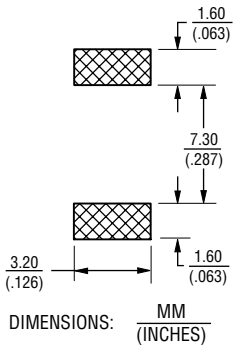


How to Order

SRR1050A - 101Y

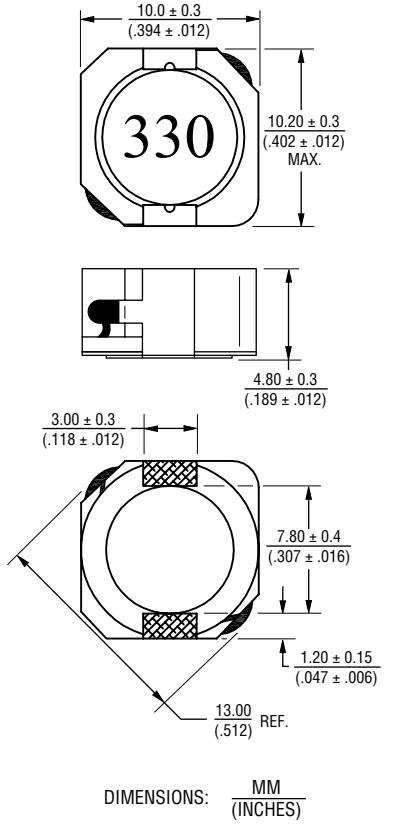
Model
Value Code (see table)

Recommended Layout



DIMENSIONS: MM (INCHES)

Product Dimensions

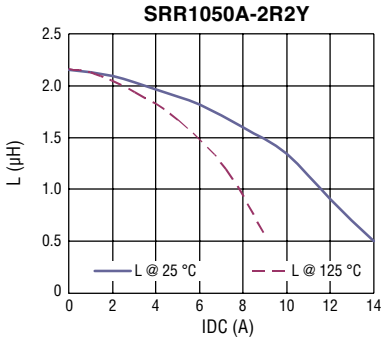


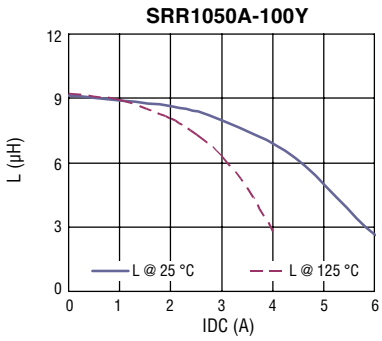
DIMENSIONS: MM (INCHES)

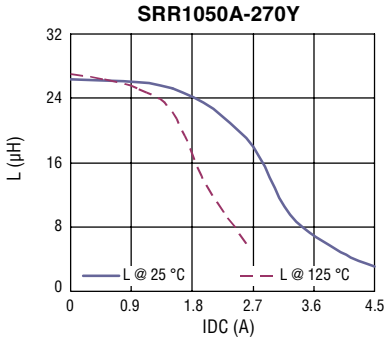
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

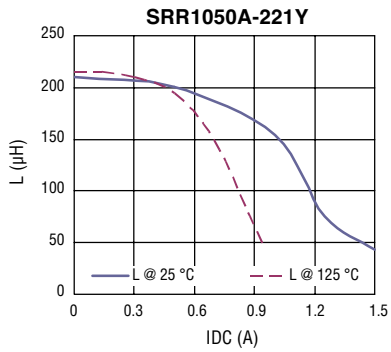
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Inductance vs. IDC

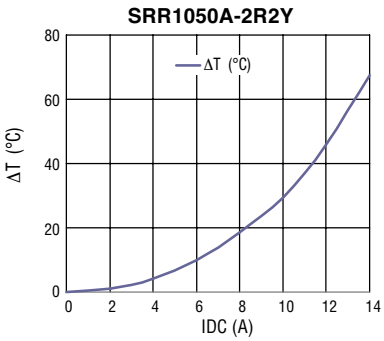


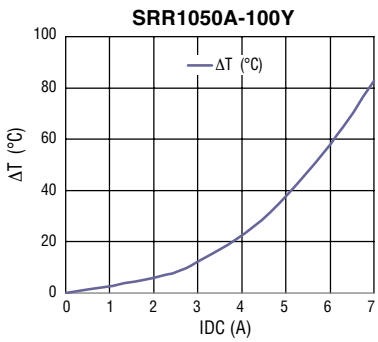


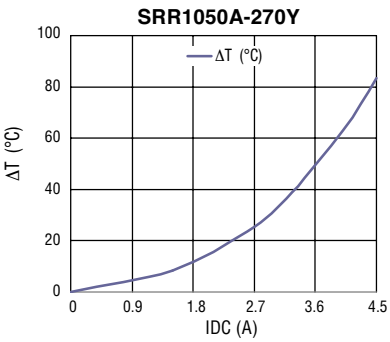


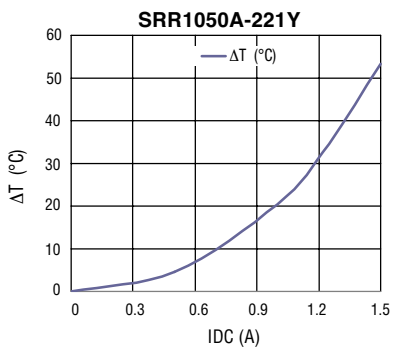


Temperature vs. IDC

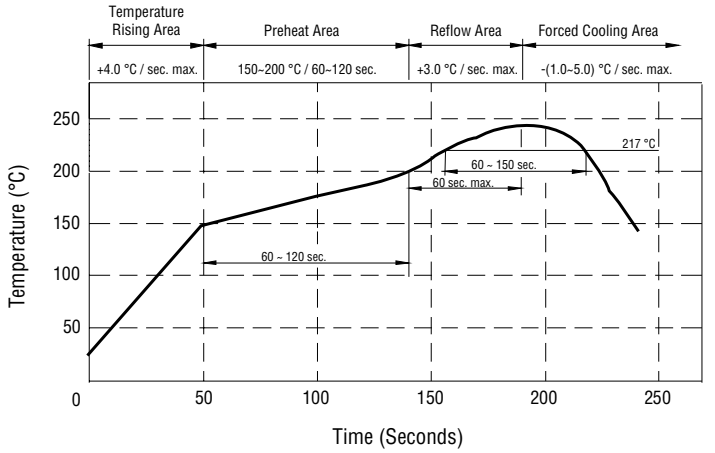








Soldering Profile

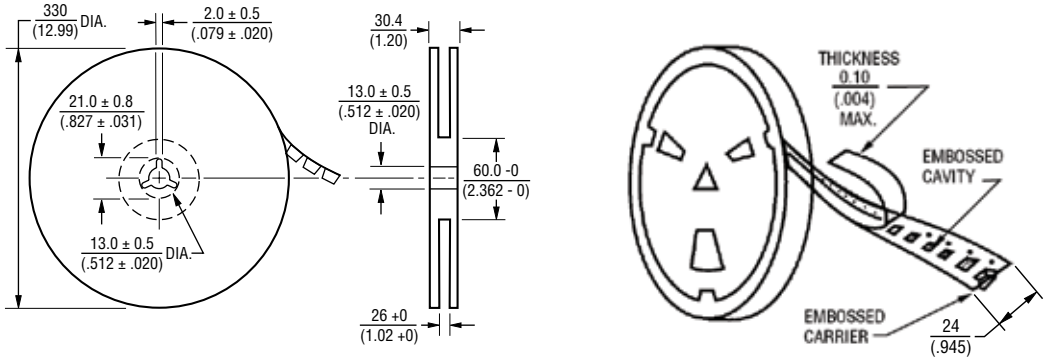


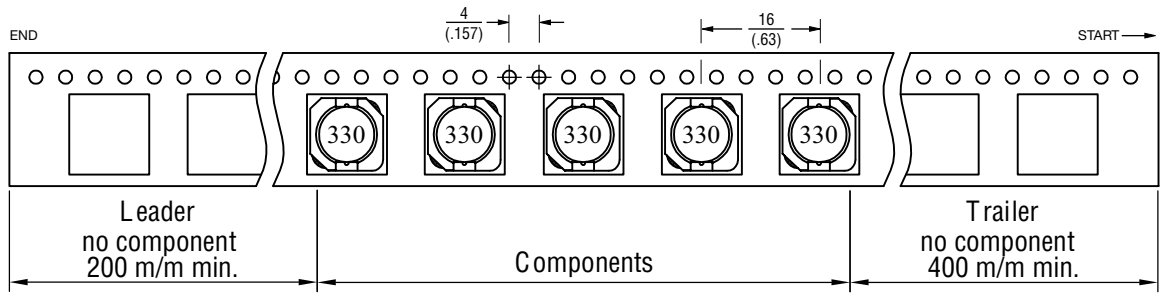
Peak Temperature:
245 °C max.

Time Above 245 °C:
30 sec. max.

Time Above 217 °C:
60 ~ 150 sec. max.

Packaging Specifications





DIMENSIONS: MM / (INCHES)

USER DIRECTION OF FEED

QTY: 700 PCS. PER REEL

07/16