



Features

- Shielded construction
- Inductance range: 1.0 to 1000 μ H
- Heating current up to 11 A
- Dimensions: 12 x 12 x 10 mm
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRR1210A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 kHz / 0.25 V		Q Ref.	Q Test Freq. (MHz)	SRF (MHz) Typ.	DCR (Ω) Max.	I rms (A)	I sat (A)	***K-Factor
	L (μ H)	Tol. (%)							
SRR1210A-1R0Y	1.0	± 30	10	7.96	85	0.006	11.0	16.5	86
SRR1210A-1R8Y	1.8	± 30	10	7.96	56	0.075	10.2	13.2	67
SRR1210A-2R2Y	2.2	± 30	10	7.96	54	0.09	9.5	12.2	55
SRR1210A-3R3Y	3.3	± 30	15	7.96	44	0.01	9.0	10.5	46
SRR1210A-4R7Y	4.7	± 30	8	7.96	35	0.012	8.5	9.6	40
SRR1210A-5R6Y	5.6	± 30	12	7.96	28	0.0135	8.0	8.5	35
SRR1210A-6R8Y	6.8	± 30	12	7.96	20	0.015	7.85	8.3	32
SRR1210A-8R2Y	8.2	± 30	11	7.96	16	0.017	7.25	7.55	29
SRR1210A-100M	10	± 20	16	2.52	12	0.018	6.5	6.5	26
SRR1210A-120M	12	± 20	14	2.52	18	0.022	6.3	6.1	24
SRR1210A-150M	15	± 20	16	2.52	10.5	0.032	5.8	5.3	21
SRR1210A-180M	18	± 20	13	2.52	8	0.035	5.5	5.1	19
SRR1210A-220M	22	± 20	16	2.52	8	0.038	5.2	4.5	17
SRR1210A-270M	27	± 20	16	2.52	6.5	0.04	5.0	4.2	15
SRR1210A-330M	33	± 20	16	2.52	6.5	0.052	4.4	3.7	14
SRR1210A-390M	39	± 20	16	2.52	4.5	0.066	4.2	3.5	13
SRR1210A-470M	47	± 20	16	2.52	4.5	0.072	3.8	3.1	12
SRR1210A-560M	56	± 20	8	2.52	4	0.09	3.4	2.9	11
SRR1210A-680M	68	± 20	12	2.52	3.8	0.102	3.0	2.7	10
SRR1210A-820M	82	± 20	15	2.52	3.5	0.112	2.8	2.5	9
SRR1210A-101M	100	± 20	16	0.796	3	0.135	2.5	2.2	8
SRR1210A-121M	120	± 20	13	0.796	2.6	0.17	2.3	1.9	7
SRR1210A-151M	150	± 20	12	0.796	2.2	0.19	2.2	1.8	7
SRR1210A-181M	180	± 20	14	0.796	1.8	0.25	1.9	1.6	6
SRR1210A-221M	220	± 20	15	0.796	1.8	0.315	1.7	1.5	5
SRR1210A-271M	270	± 20	16	0.796	1.8	0.41	1.5	1.3	5
SRR1210A-331M	330	± 20	14	0.796	1.8	0.45	1.4	1.2	4
SRR1210A-391M	390	± 20	16	0.796	1.3	0.6	1.3	1.1	4
SRR1210A-471M	470	± 20	12	0.796	0.85	0.82	1.2	1.0	4
SRR1210A-561M	560	± 20	12	0.796	0.85	0.9	1.1	0.95	3
SRR1210A-681M	680	± 20	11	0.796	0.85	1.2	1.0	0.85	3
SRR1210A-821M	820	± 20	6	0.796	0.85	1.32	0.85	0.75	3
SRR1210A-102M	1000	± 20	22	0.796	0.85	1.65	0.75	0.7	3

***K-Factor: To calculate core flux density, Bp-p (gauss) = $K \times L(\mu H) \times \Delta I$ (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

How to Order

SRR1210A - 100M

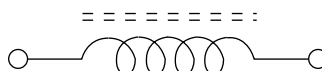
Model _____
Value Code (see table) _____



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

* 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.
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Electrical Schematic



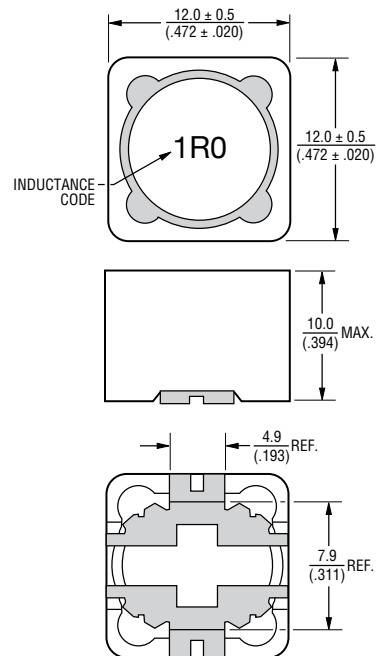
General Specifications

Operating Temperature -40 °C to +125 °C
(Temperature rise included)
Storage Temperature -40 °C to +125 °C
Resistance to Solder Heat +245°C for 10 sec.
Temperature Rise 40 °C typ. at rated I rms
Inductance drop 20 % at I sat

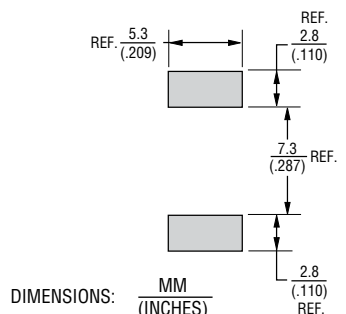
Materials

Core Ferrite
Wire Enameled copper
Terminal Finish Sn
Packaging 250 pcs. per reel

Product Dimensions



Recommended Layout

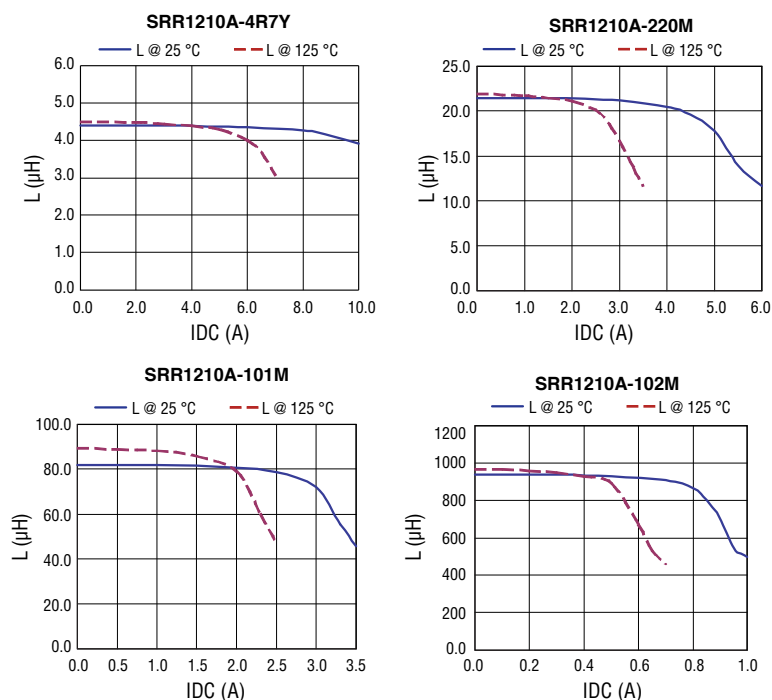


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

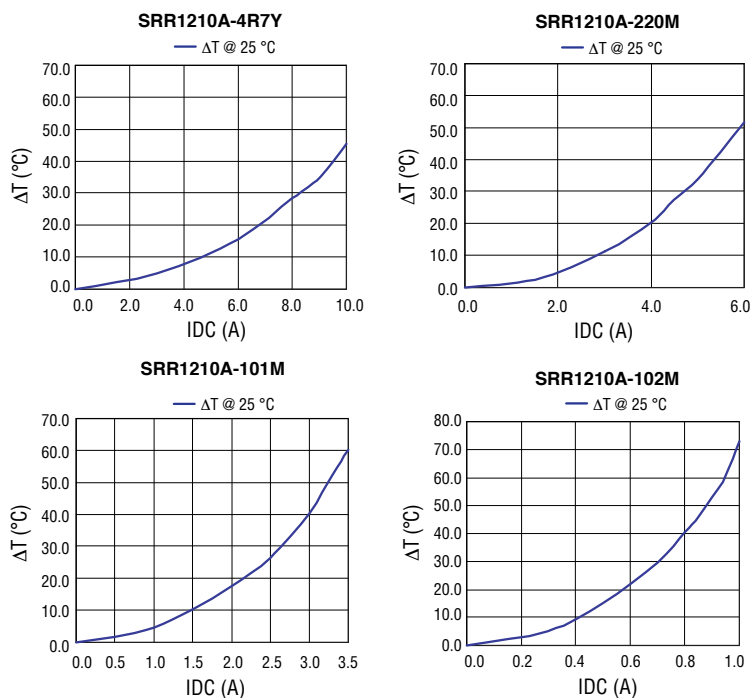
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Inductance vs. IDC



Temperature Rise vs. IDC



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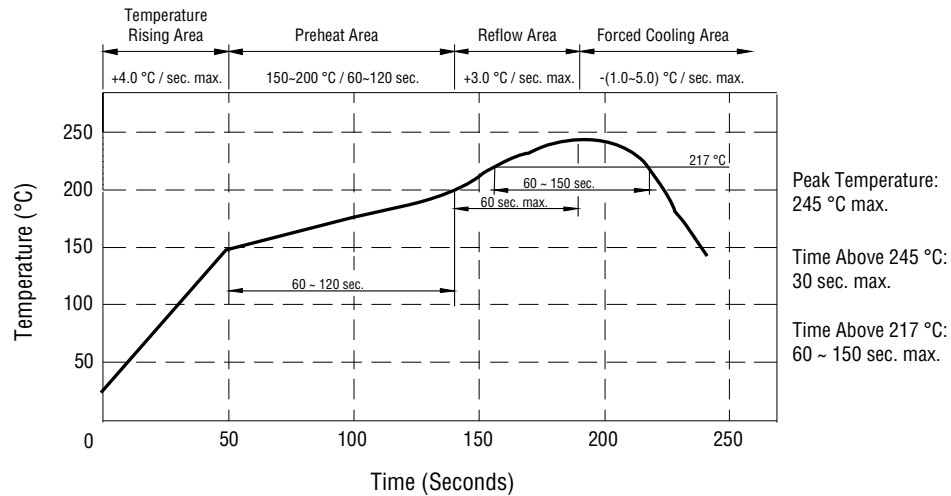
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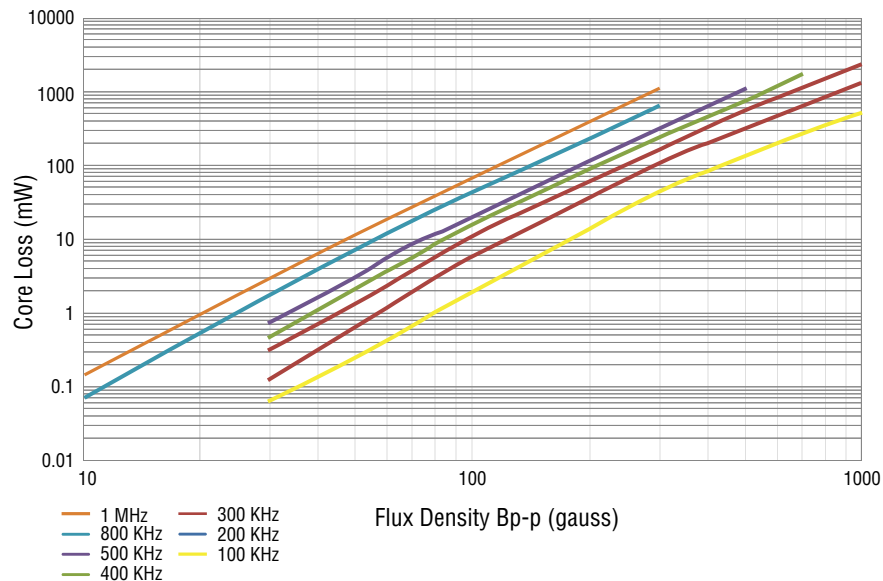
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Soldering Profile



Core Loss vs. Flux Density



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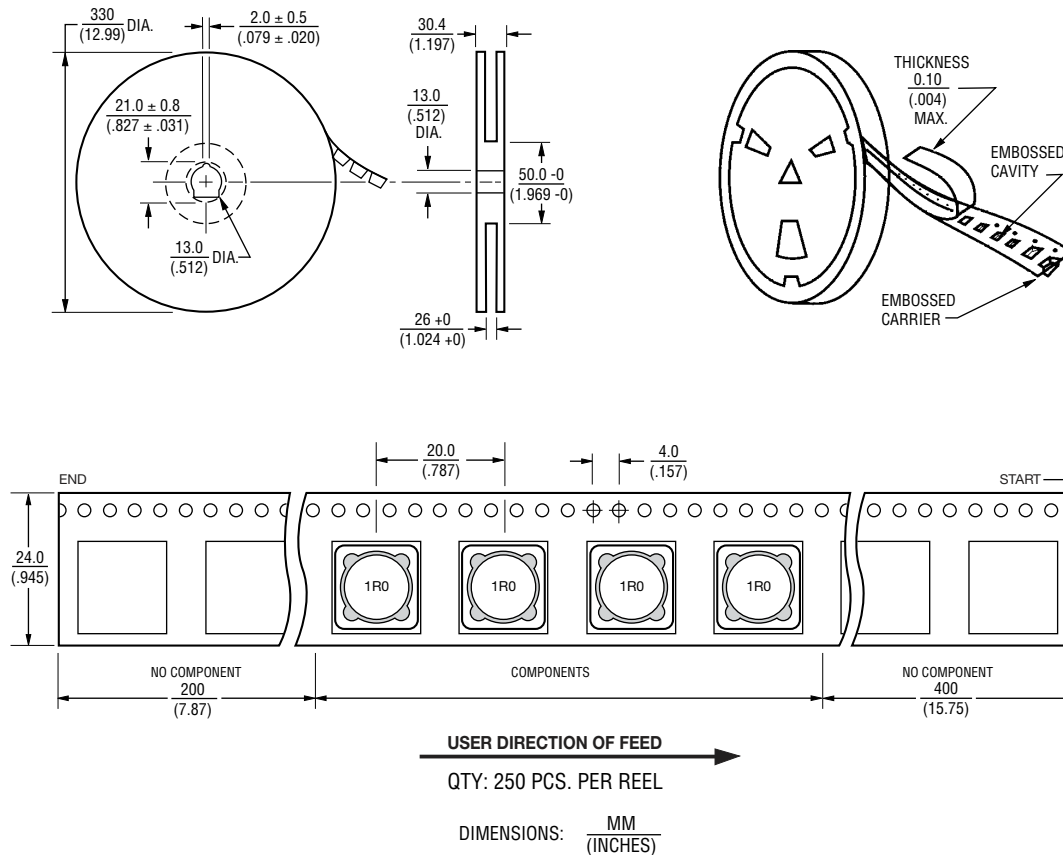
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Packaging Specifications



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Bourns:

<u>SRR1210A-470M</u>	<u>SRR1210A-471M</u>	<u>SRR1210A-121M</u>	<u>SRR1210A-180M</u>	<u>SRR1210A-2R2Y</u>	<u>SRR1210A-821M</u>
<u>SRR1210A-181M</u>	<u>SRR1210A-270M</u>	<u>SRR1210A-561M</u>	<u>SRR1210A-820M</u>	<u>SRR1210A-271M</u>	<u>SRR1210A-102M</u>
<u>SRR1210A-221M</u>	<u>SRR1210A-3R3Y</u>	<u>SRR1210A-150M</u>	<u>SRR1210A-120M</u>	<u>SRR1210A-220M</u>	<u>SRR1210A-1R8Y</u>
<u>SRR1210A-330M</u>	<u>SRR1210A-391M</u>	<u>SRR1210A-1R0Y</u>	<u>SRR1210A-331M</u>	<u>SRR1210A-6R8Y</u>	<u>SRR1210A-151M</u>
<u>SRR1210A-390M</u>	<u>SRR1210A-100M</u>	<u>SRR1210A-680M</u>	<u>SRR1210A-5R6Y</u>	<u>SRR1210A-4R7Y</u>	<u>SRR1210A-681M</u>
<u>SRR1210A-101M</u>	<u>SRR1210A-8R2Y</u>	<u>SRR1210A-560M</u>			