



**THE DATASHEET OF  
SRR1210-1R8Y**





### Features

- Available in E12 series
- Height of 10 mm
- Current rating up to 11 A
- RoHS compliant\*

### Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

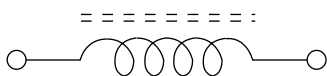
## SRR1210 Series - Shielded SMD Power Inductors

### Electrical Characteristics

Bourns Part No.	Inductance 1 kHz / 0.25 V		Q Ref.	Test Frequency (MHz)	SRF MHz Typ.	DCR max. (mΩ)	I rms (A)	I sat (A)	**K- Factor
	μH	Tol. %							
SRR1210-1R0Y	1.0	±30	10	7.96	85	6.0	11.0	16.5	86
SRR1210-1R8Y	1.8	±30	10	7.96	56	7.5	10.2	13.2	67
SRR1210-2R2Y	2.2	±30	10	7.96	54	9.0	9.5	12.2	55
SRR1210-3R3Y	3.3	±30	15	7.96	44	10	9.0	10.5	46
SRR1210-4R7Y	4.7	±30	8	7.96	35	12	8.5	9.6	40
SRR1210-5R6Y	5.6	±30	12	7.96	28	14	8.0	8.5	35
SRR1210-6R8Y	6.8	±30	12	7.96	20	15	7.9	8.3	32
SRR1210-8R2Y	8.2	±30	11	7.96	16	17	7.3	7.5	29
SRR1210-100M	10	±20	16	2.52	12	18	6.5	6.5	26
SRR1210-120M	12	±20	14	2.52	18	22	6.3	6.1	24
SRR1210-150M	15	±20	16	2.52	10.5	32	5.8	5.3	21
SRR1210-180M	18	±20	13	2.52	8.0	35	5.5	5.1	19
SRR1210-220M	22	±20	16	2.52	8.0	38	5.2	4.5	17
SRR1210-270M	27	±20	16	2.52	6.5	40	5.0	4.2	15
SRR1210-330M	33	±20	16	2.52	6.5	52	4.4	3.7	14
SRR1210-390M	39	±20	16	2.52	4.5	66	4.2	3.5	13
SRR1210-470M	47	±20	16	2.52	4.5	72	3.8	3.1	12
SRR1210-560M	56	±20	8	2.52	4.0	90	3.4	2.9	11
SRR1210-680M	68	±20	12	2.52	3.8	102	3.0	2.7	10
SRR1210-820M	82	±20	15	2.52	3.5	112	2.8	2.5	9
SRR1210-101M	100	±20	16	0.796	3.0	135	2.5	2.2	8
SRR1210-121M	120	±20	13	0.796	2.6	170	2.3	1.9	7
SRR1210-151M	150	±20	12	0.796	2.2	190	2.2	1.8	7
SRR1210-181M	180	±20	14	0.796	1.8	250	1.9	1.6	6
SRR1210-221M	220	±20	15	0.796	1.8	315	1.7	1.5	5
SRR1210-271M	270	±20	16	0.796	1.8	410	1.5	1.3	5
SRR1210-331M	330	±20	14	0.796	1.8	450	1.4	1.2	4
SRR1210-391M	390	±20	16	0.796	1.3	600	1.3	1.1	4
SRR1210-471M	470	±20	12	0.796	0.85	820	1.2	1.0	4
SRR1210-561M	560	±20	12	0.796	0.85	900	1.1	0.95	3
SRR1210-681M	680	±20	11	0.796	0.85	1200	1.0	0.85	3
SRR1210-821M	820	±20	6	0.796	0.85	1320	0.85	0.75	3
SRR1210-102M	1000	±20	22	0.796	0.85	1650	0.75	0.70	3

\*\*K-Factor: To calculate core flux density,  $B_p$ -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.

### Schematic



### Recommended Layout



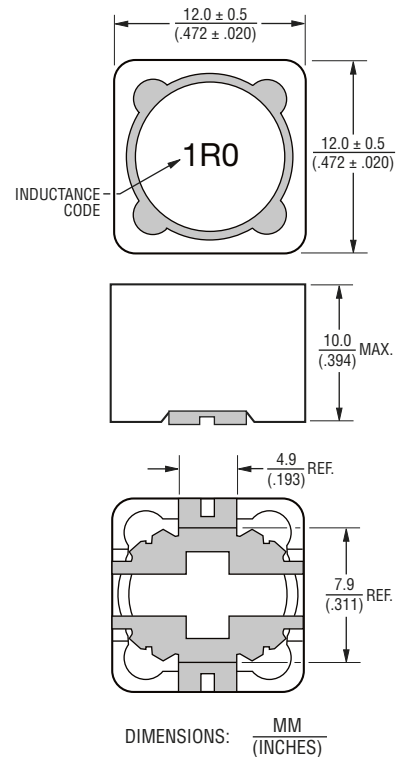
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -40 °C to +125 °C  
Resistance to Soldering Heat ..... 260 °C for 5 sec.  
Rated Current ..... Ind. drop of 20 % typ. at Isat  
Temperature Rise .. 40 °C typical at Irms  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM)..... N/A

### Materials

Core..... Ferrite DR & RI  
Wire ..... Enameled copper  
Terminal coating ..... Matte Sn  
Packaging..... 250 pcs. per reel

### Product Dimensions



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

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**WARNING Cancer and Reproductive Harm**  
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# SRR1210 Series - Shielded SMD Power Inductors

**BOURNS®**

## Core Loss vs. Flux Density



## Packaging Specifications



REV. 03/18

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