



**THE DATASHEET OF  
SDR2207-220Y**





## Features

- Available in E12 series
- Low height of only 7.0 mm
- Inductance as low as 0.78  $\mu$ H
- High current up to 16 amps
- RoHS compliant\*

## Applications

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

# SDR2207 Series - SMD Power Inductors

## Electrical Specifications

Bourns Part Number	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR2207-R78ML	0.78	$\pm 20$	30	5	104.0	2.6	15.0	30.0
SDR2207-R80ML	0.8	$\pm 20$	30	5	102.0	2.8	16.0	35.0
SDR2207-1R2ML	1.2	$\pm 20$	30	3	70.0	3.8	15.0	30.0
SDR2207-1R5ML	1.5	$\pm 20$	30	3	60.0	5.0	15.0	25.0
SDR2207-1R8ML	1.8	$\pm 20$	31	3	51.0	4.5	13.0	25.0
SDR2207-2R2ML	2.2	$\pm 20$	35	3	51.0	7.5	13.0	20.0
SDR2207-2R7ML	2.7	$\pm 20$	38	3	51.0	7.0	10.0	20.0
SDR2207-3R3ML	3.3	$\pm 20$	38	3	39.0	7.8	9.0	17.0
SDR2207-3R9ML	3.9	$\pm 20$	38	3	36.0	12.0	9.0	15.0
SDR2207-4R7ML	4.7	$\pm 20$	38	3	33.0	8.8	8.5	15.0
SDR2207-5R6ML	5.6	$\pm 20$	50	3	30.0	13.4	7.8	14.0
SDR2207-6R0ML	6.0	$\pm 20$	43	3	28.0	17.0	7.5	12.0
SDR2207-6R8ML	6.8	$\pm 20$	38	3	27.0	14.2	7.5	12.0
SDR2207-7R8ML	7.8	$\pm 20$	36	3	26.0	20.0	7.5	11.0
SDR2207-8R2ML	8.2	$\pm 20$	35	3	25.0	15.5	7.0	11.0
SDR2207-100ML	10	$\pm 20$	53	5	20.0	17.2	6.5	10.0
SDR2207-120YL	12	$\pm 15$	50	5	19.0	23.6	5.5	9.5
SDR2207-150YL	15	$\pm 15$	38	5	16.0	28.8	5.0	9.0
SDR2207-180YL	18	$\pm 15$	46	5	15.0	33.0	4.6	8.0
SDR2207-220YL	22	$\pm 15$	27	3	14.0	39.4	4.0	6.5
SDR2207-270YL	27	$\pm 15$	22	3	12.0	43.5	3.8	6.0
SDR2207-330YL	33	$\pm 15$	27	3	11.0	58.4	3.4	5.5
SDR2207-390KL	39	$\pm 10$	18	3	10.0	65.0	3.2	5.2
SDR2207-470KL	47	$\pm 10$	27	3	9.0	91.2	2.8	5.0
SDR2207-560KL	56	$\pm 10$	25	2	8.3	96.5	2.6	4.5
SDR2207-680KL	68	$\pm 10$	18	2	7.9	112.0	2.4	4.0
SDR2207-820KL	82	$\pm 10$	28	2	6.5	144.0	2.3	3.5
SDR2207-101KL	100	$\pm 10$	18	2	6.2	168.0	2.2	3.0
SDR2207-121KL	120	$\pm 10$	20	2	6.0	230.0	1.6	3.0
SDR2207-151KL	150	$\pm 10$	22	2	5.8	250.0	1.5	2.6
SDR2207-181KL	180	$\pm 10$	20	2	5.7	300.0	1.3	2.5
SDR2207-221KL	220	$\pm 10$	19	2	5.5	380.0	1.2	2.4
SDR2207-271KL	270	$\pm 10$	17	2	5.3	470.0	1.1	2.2
SDR2207-331KL	330	$\pm 10$	20	1	5.1	560.0	1.0	1.9
SDR2207-391KL	390	$\pm 10$	17	1	4.9	680.0	0.9	1.7
SDR2207-471KL	470	$\pm 10$	19	1	4.7	850.0	0.8	1.4
SDR2207-561KL	560	$\pm 10$	18	1	4.5	1000	0.8	1.3
SDR2207-681KL	680	$\pm 10$	16	1	4.2	1100	0.7	1.2
SDR2207-821KL	820	$\pm 10$	16	1	3.9	1400	0.6	1.1
SDR2207-102KL	1000	$\pm 10$	15	1	3.5	1800	0.6	1.0

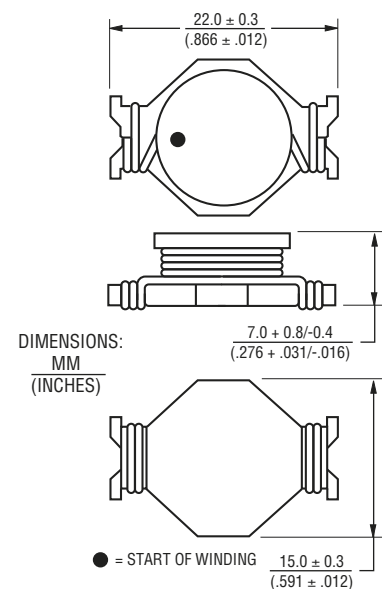
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ... 230 °C, 10 sec. max  
 (In compliance with JEDEC, J-STD-020C, Table 4-2)  
 Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature... -40 °C to +125 °C  
 Resistance to Soldering Heat ..... 250 °C, 10 sec. max.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM).....N/A

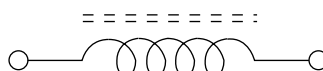
## Materials

Core ..... Ferrite DR  
 Wire ..... Enamelled copper  
 Base ..... Phenolic T375J  
 Terminal.....Cu/Ag/Sn  
 Rated Current .....Ind. drop 10 % typ. at Isat  
 Temperature Rise .....40 °C max. at rated Irms  
 Packaging.....250 pcs. per reel

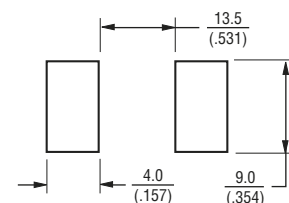
## Product Dimensions



## Electrical Schematic



## Recommended Layout



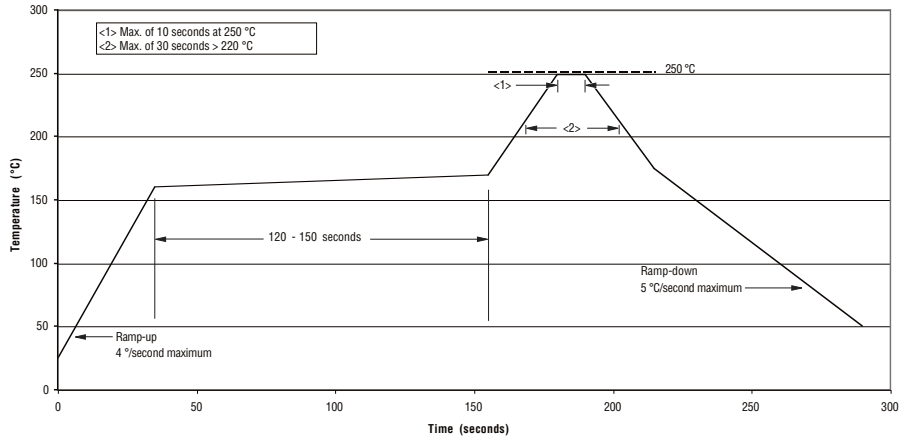
**WARNING**  
 Cancer and Reproductive Harm -  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# SDR2207 Series - SMD Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



QTY: 250 PCS. PER REEL

REV. 03/18

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Users should verify actual device performance in their specific applications.

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