



## Features

- Shielded construction
- Inductance range: 4.7 to 1000  $\mu$ H
- Heating current up to 8.2 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## Applications

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

# SRR1280A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance			Q (Ref.)	Test Freq. (MHz)	SRF (MHz) Typ.	DCR (m $\Omega$ ) Max.	I rms (A)	I sat (A)
	L ( $\mu$ H)	Tol. (%)	Test Frequency/Voltage						
SRR1280A-4R7Y	4.7	$\pm$ 30	100 KHz/1 V	22	7.96	30	15.5	8.20	8.80
SRR1280A-6R8Y	6.8	$\pm$ 30	100 KHz/1 V	20	7.96	22	18.5	7.60	8.00
SRR1280A-8R2Y	8.2	$\pm$ 30	100 KHz/1 V	22	7.96	20	20.5	6.20	6.80
SRR1280A-100M	10	$\pm$ 20	1 KHz/1 V	24	2.52	17	19.5	6.00	6.30
SRR1280A-120M	12	$\pm$ 20	1 KHz/1 V	26	2.52	15	28.0	5.60	6.00
SRR1280A-150M	15	$\pm$ 20	1 KHz/1 V	26	2.52	13	28.5	5.20	5.00
SRR1280A-180M	18	$\pm$ 20	1 KHz/1 V	24	2.52	12	35.0	4.80	4.60
SRR1280A-220M	22	$\pm$ 20	1 KHz/1 V	20	2.52	11	38.6	4.30	4.10
SRR1280A-270M	27	$\pm$ 20	1 KHz/1 V	26	2.52	10	52.0	3.90	3.70
SRR1280A-330M	33	$\pm$ 20	1 KHz/1 V	28	2.52	9.5	57.0	3.50	3.30
SRR1280A-390M	39	$\pm$ 20	1 KHz/1 V	24	2.52	8.5	70.0	3.20	3.10
SRR1280A-470M	47	$\pm$ 20	1 KHz/1 V	24	2.52	7.5	80.0	2.90	2.80
SRR1280A-560M	56	$\pm$ 20	1 KHz/1 V	24	2.52	7	100.0	2.60	2.50
SRR1280A-680M	68	$\pm$ 20	1 KHz/1 V	20	2.52	6.5	120.0	2.40	2.30
SRR1280A-820M	82	$\pm$ 20	1 KHz/1 V	20	2.52	5	130.0	2.30	2.20
SRR1280A-101M	100	$\pm$ 20	1 KHz/1 V	18	0.796	4.5	150.0	2.10	2.00
SRR1280A-121K	120	$\pm$ 10	1 KHz/1 V	16	0.796	4.3	200.0	1.95	1.95
SRR1280A-151K	150	$\pm$ 10	1 KHz/1 V	24	0.796	4.1	270.0	1.85	1.90
SRR1280A-181K	180	$\pm$ 10	1 KHz/1 V	24	0.796	4	300.0	1.75	1.88
SRR1280A-221K	220	$\pm$ 10	1 KHz/1 V	24	0.796	3.4	400.0	1.60	1.70
SRR1280A-271K	270	$\pm$ 10	1 KHz/1 V	20	0.796	3.1	450.0	1.20	1.60
SRR1280A-331K	330	$\pm$ 10	1 KHz/1 V	18	0.796	2.9	600.0	1.10	1.40
SRR1280A-391K	390	$\pm$ 10	1 KHz/1 V	20	0.796	2.7	680.0	1.00	1.40
SRR1280A-471K	470	$\pm$ 10	1 KHz/1 V	20	0.796	2.2	880.0	0.90	1.25
SRR1280A-561K	560	$\pm$ 10	1 KHz/1 V	20	0.796	2	960.0	0.80	1.15
SRR1280A-681K	680	$\pm$ 10	1 KHz/1 V	26	0.796	1.7	1300.0	0.75	0.97
SRR1280A-821K	820	$\pm$ 10	1 KHz/1 V	20	0.796	1.4	1500.0	0.70	0.94
SRR1280A-102K	1000	$\pm$ 10	1 KHz/1 V	40	0.252	1.3	1700.0	0.68	0.80

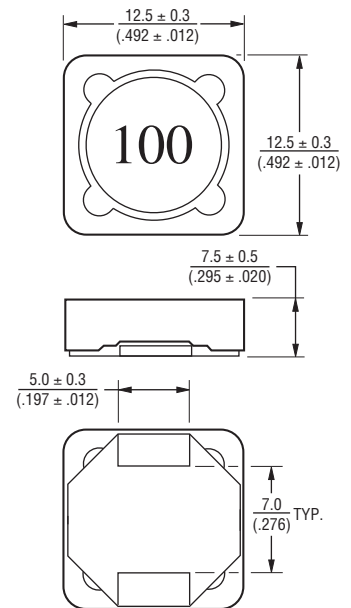
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +125 °C  
 Resistance to Soldering Heat ..... +245 °C for 10 sec.  
 Temperature Rise ..... 40 °C typ. at rated I rms  
 Inductance Drop ..... 25 % typ. at I sat

### Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 400 pcs. per reel

### Product Dimensions

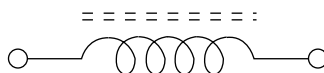


### How to Order

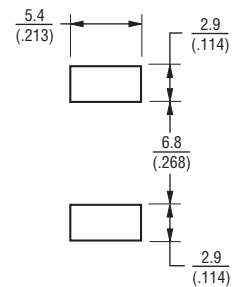
**SRR1280A - 100M**

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

### Electrical Schematic



### Recommended Layout



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

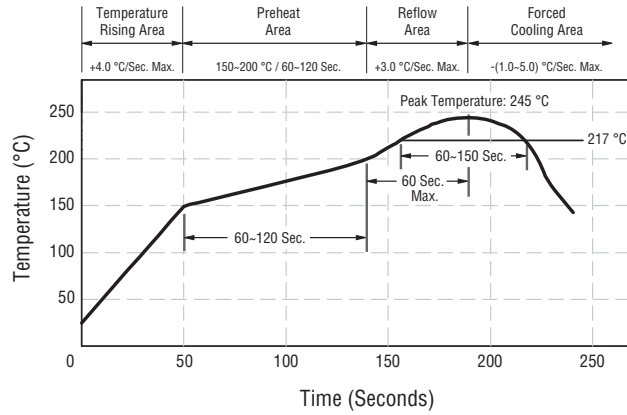
\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 \*\* Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.  
 Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.

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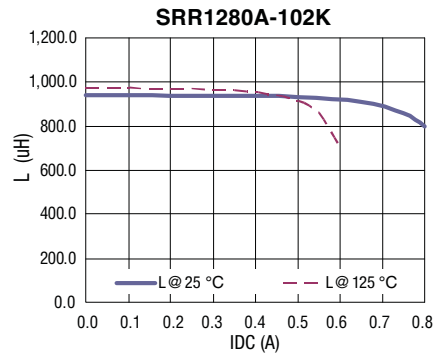
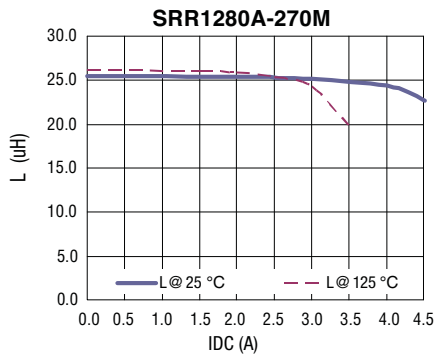
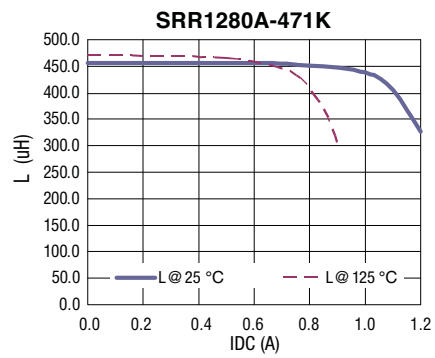
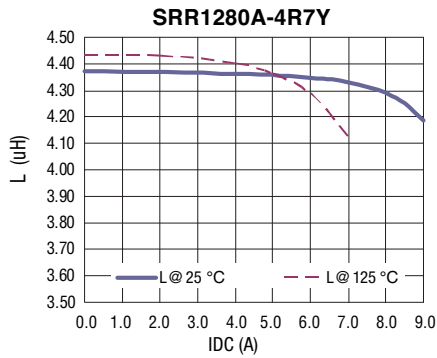


## Soldering Profile

Peak Temperature: 245 °C max.  
 Max. Peak Temperature -5 °C: 30 sec. max.  
 Max. Time Above 217 °C: 60~150 sec. max.



## L vs. IDC

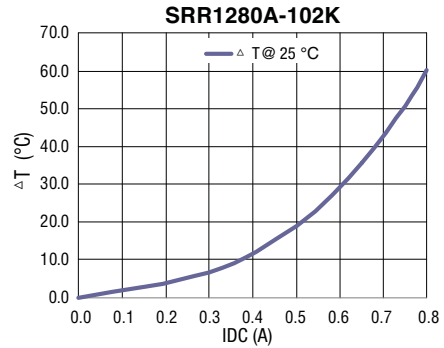
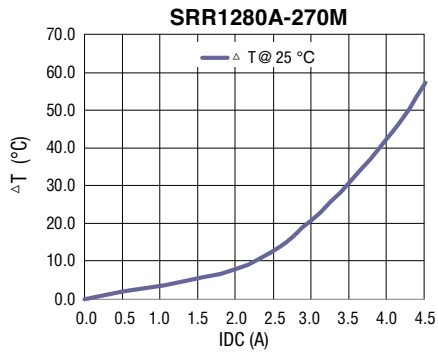
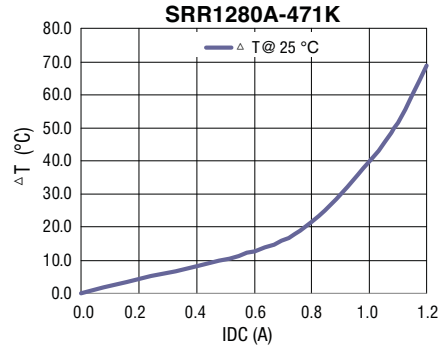
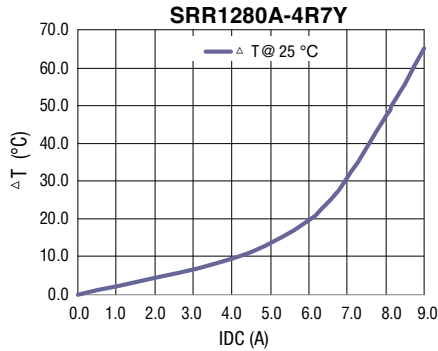


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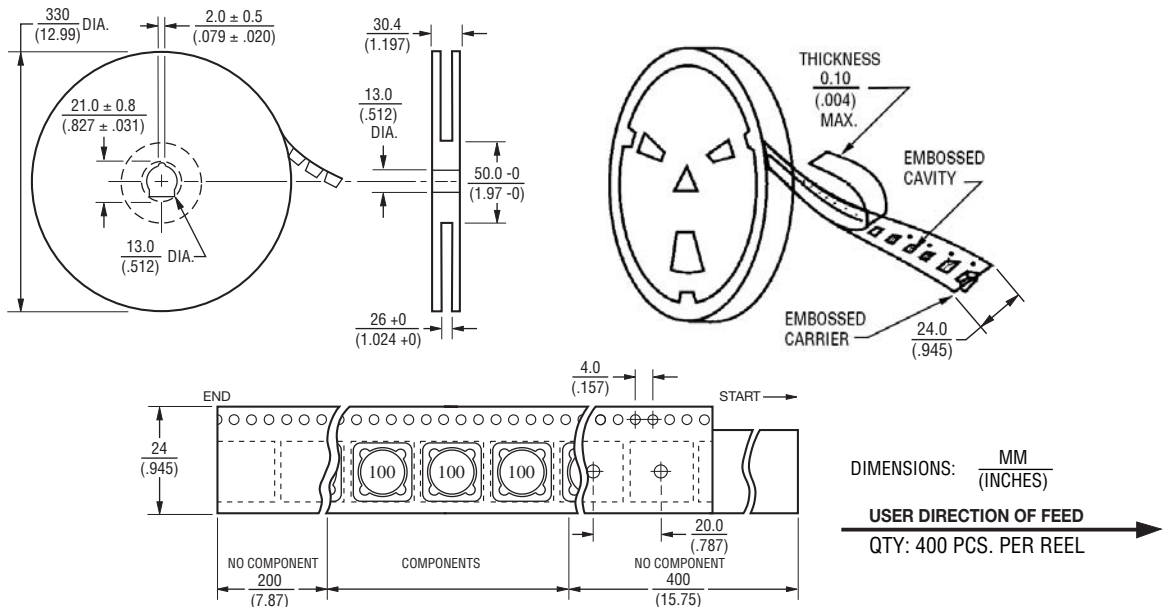
# SRR1280A Series - Shielded Power Inductors



## Temperature vs. IDC



## Packaging Specifications



REV. 09/13

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