



## Features

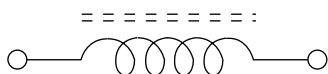
- Semi-shielded construction
- Inductance range: 0.5 to 330  $\mu$ H
- Rated current up to 12 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRN8040TA Series - Semi-shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 1 V		Q (Min.) @ 1 MHz	SRF (MHz) Typ.	DCR (m $\Omega$ ) $\pm$ 20 %	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L ( $\mu$ H)	Tol. %					
SRN8040TA-R50Y	0.5	$\pm$ 30	20	165	5.5	12.00	17.00
SRN8040TA-1R0Y	1.0	$\pm$ 30	15	85	8.2	8.50	13.80
SRN8040TA-1R4Y	1.4	$\pm$ 30	15	78	10	8.20	11.80
SRN8040TA-1R5Y	1.5	$\pm$ 30	15	66	10	8.00	11.50
SRN8040TA-2R0Y	2.0	$\pm$ 30	15	61	11	7.50	10.20
SRN8040TA-2R2Y	2.2	$\pm$ 30	15	57	11.5	7.40	9.80
SRN8040TA-3R3Y	3.3	$\pm$ 30	15	48	15	6.60	8.00
SRN8040TA-4R7M	4.7	$\pm$ 20	15	38	19.5	5.80	6.70
SRN8040TA-5R6M	5.6	$\pm$ 20	15	33	22	5.40	6.20
SRN8040TA-6R8M	6.8	$\pm$ 20	15	29	25	5.10	5.60
SRN8040TA-100M	10	$\pm$ 20	15	25	33	4.60	5.00
SRN8040TA-150M	15	$\pm$ 20	12	20	50	3.60	4.00
SRN8040TA-220M	22	$\pm$ 20	12	18	73	2.90	3.10
SRN8040TA-330M	33	$\pm$ 20	12	15	100	2.30	2.60
SRN8040TA-470M	47	$\pm$ 20	12	12	135	2.00	2.20
SRN8040TA-560M	56	$\pm$ 20	12	10.5	160	1.75	1.90
SRN8040TA-680M	68	$\pm$ 20	12	9.5	205	1.65	1.75
SRN8040TA-820M	82	$\pm$ 20	12	8.5	230	1.40	1.60
SRN8040TA-101M	100	$\pm$ 20	10	8	300	1.20	1.45
SRN8040TA-121M	120	$\pm$ 20	10	7.5	350	1.10	1.30
SRN8040TA-151M	150	$\pm$ 20	10	7	410	0.98	1.20
SRN8040TA-181M	180	$\pm$ 20	10	6.5	490	0.91	1.04
SRN8040TA-221M	220	$\pm$ 20	10	5.5	610	0.85	0.99
SRN8040TA-331M	330	$\pm$ 20	10	5	850	0.70	0.75

### Electrical Schematic

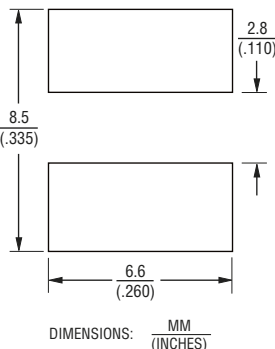


### How to Order

SRN8040TA - 100M

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

### Recommended Layout



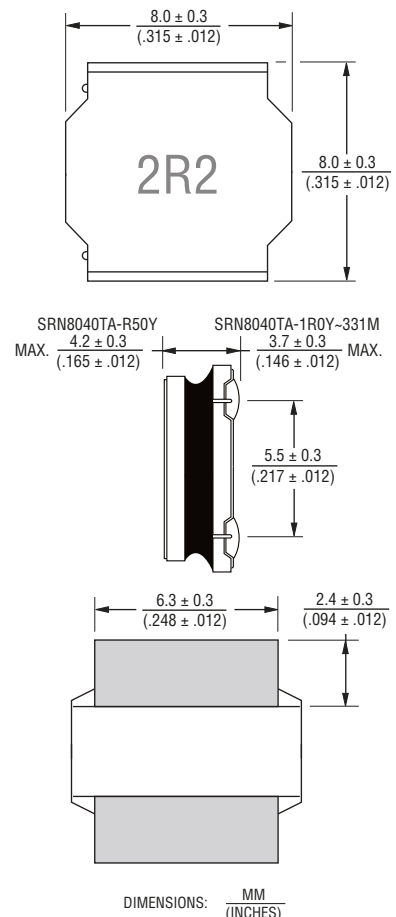
### General Specifications

Operating Temp. .... -55 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ... -55 °C to +125 °C  
Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
Rated Current  
..... Inductance drops 30 % at I<sub>sat</sub>  
Failure In Time (FIT) ..... 24.7/10<sup>9</sup> hours  
Mean Time Between Failures (MTBF)  
..... 40.4 x 10<sup>6</sup> hours  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Coating ..... Magnetic epoxy resin  
Packaging ..... 1000 pcs. per 13-inch reel

### Product Dimensions



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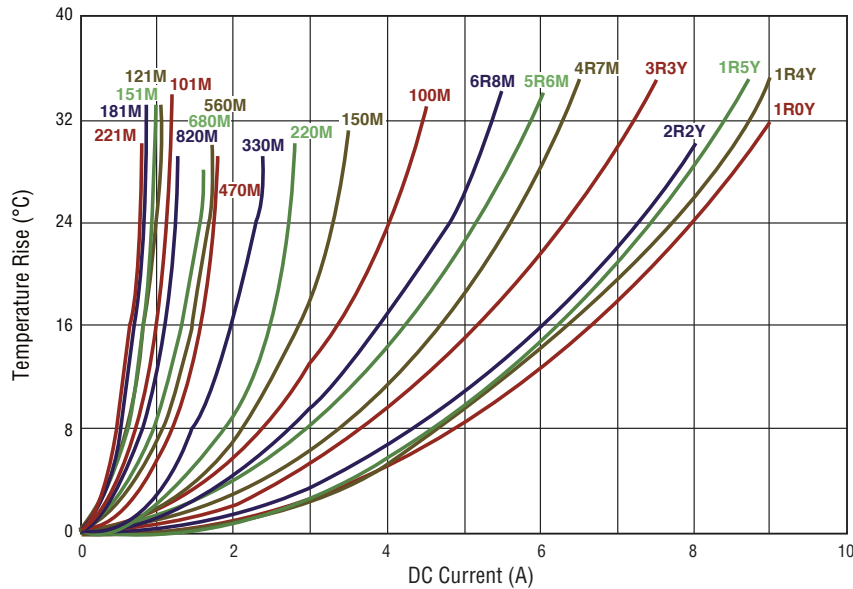
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
\*\*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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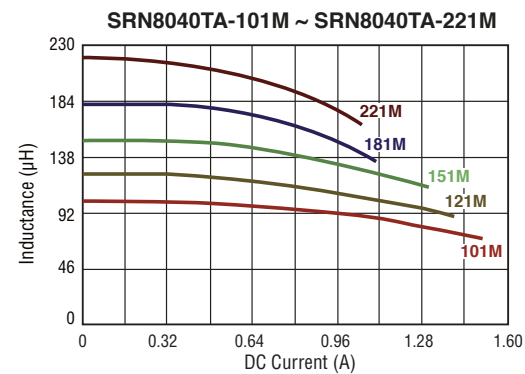
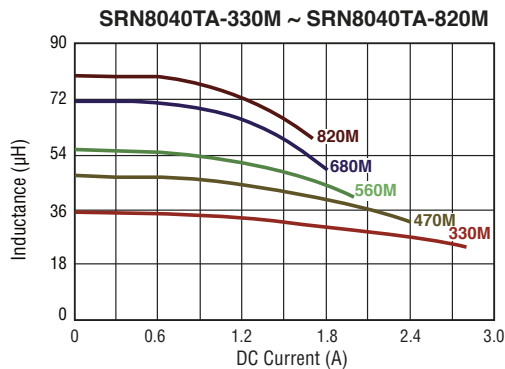
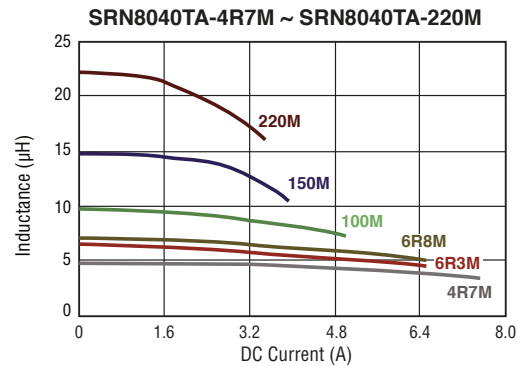
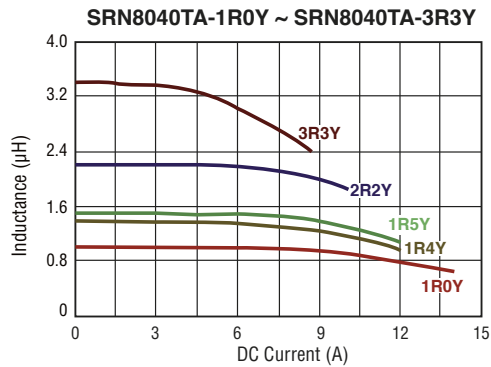
# SRN8040TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Temperature Rise vs. Current



## Inductance vs. Current



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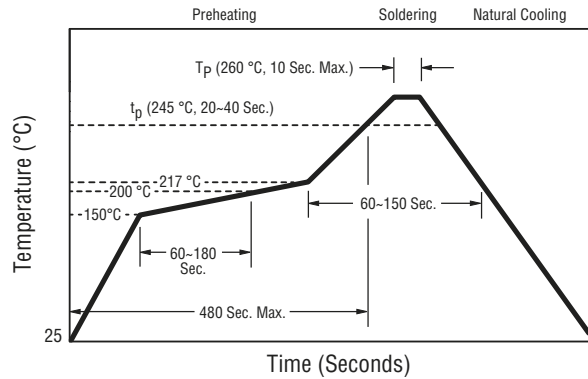
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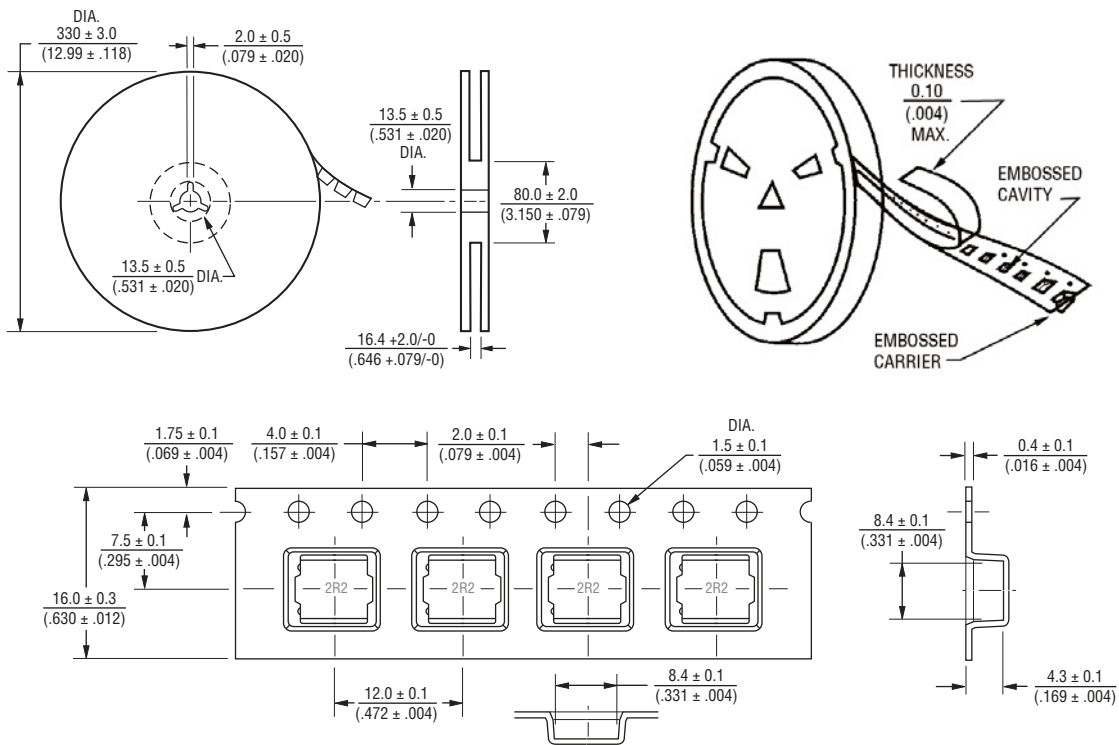
# SRN8040TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



USER DIRECTION OF FEED →  
QTY: 1000 PCS. PER REEL

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

REV. 12/17

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