



Features

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

Applications

- Automotive systems:
 - Driver assistant
 - Information
 - Entertainment
 - Lighting
- DC/DC converters
- Power supplies
- Digital video cameras
- Televisions, LCD displays

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 Ω) \pm 20 % | I _{rms} (A) Max. | I _{sat} (A) Max. |
|-----------------|--------------------------|----------|------------------|----------------|------------------------------|---------------------------|---------------------------|
| | L (μ 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-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 |

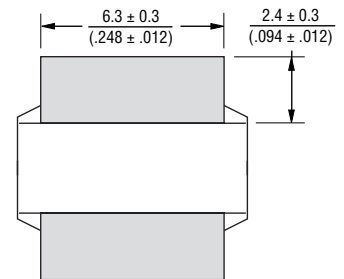
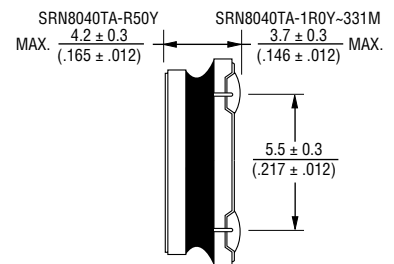
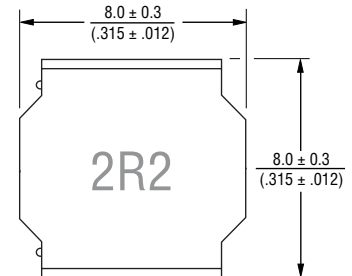
General Specifications

Operating Temp. -55 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -55 °C to +125 °C
 Temperature Rise 40 °C at rated I_{rms}
 Rated Current
 Inductance drops 30 % at I_{sat}
 Failure In Time (FIT) 24.7/10⁹ hours
 Mean Time Between Failures (MTBF)
 40.4 x 10⁶ hours

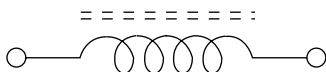
Materials

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

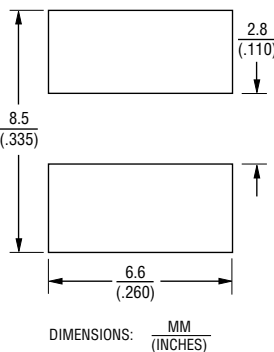
Product Dimensions



Electrical Schematic



Recommended Layout



How to Order

SRN8040TA - 100M

Model _____
 Value Code (see table) _____

*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.

Specifications are subject to change without notice.

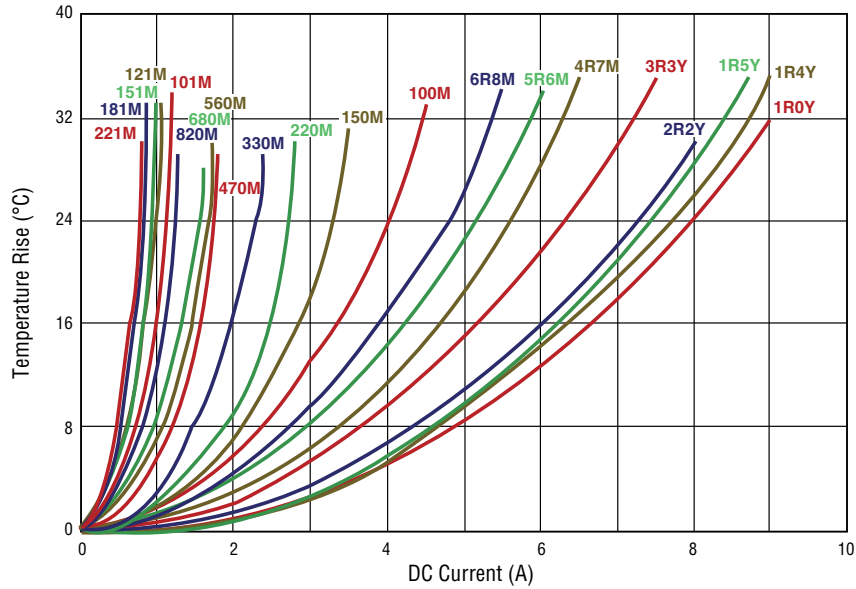
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

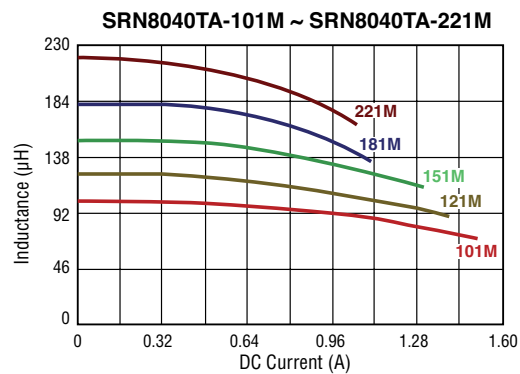
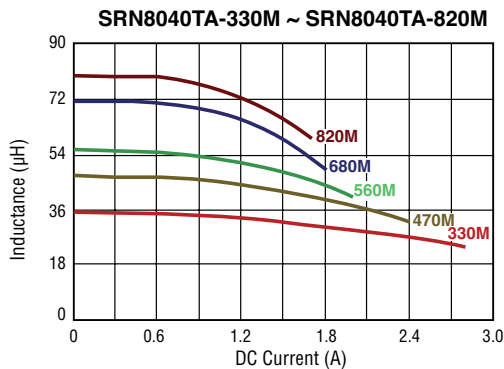
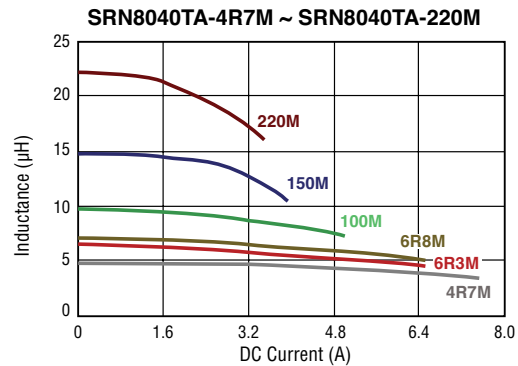
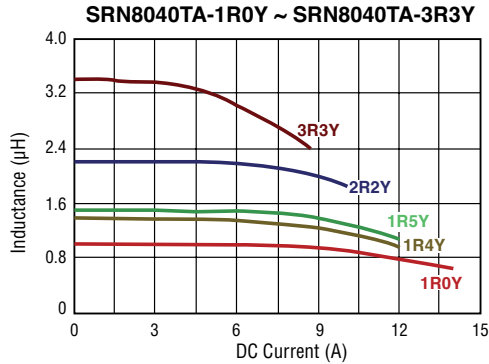
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Temperature Rise vs. Current



Inductance vs. Current

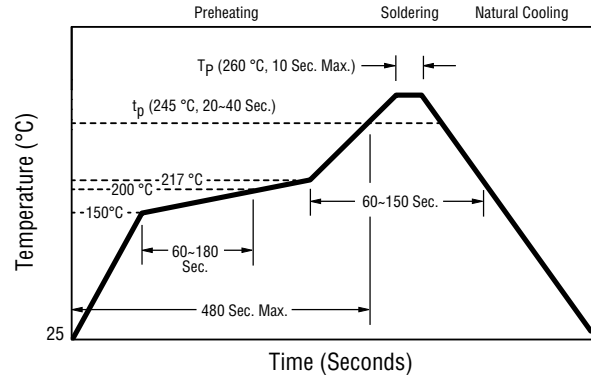


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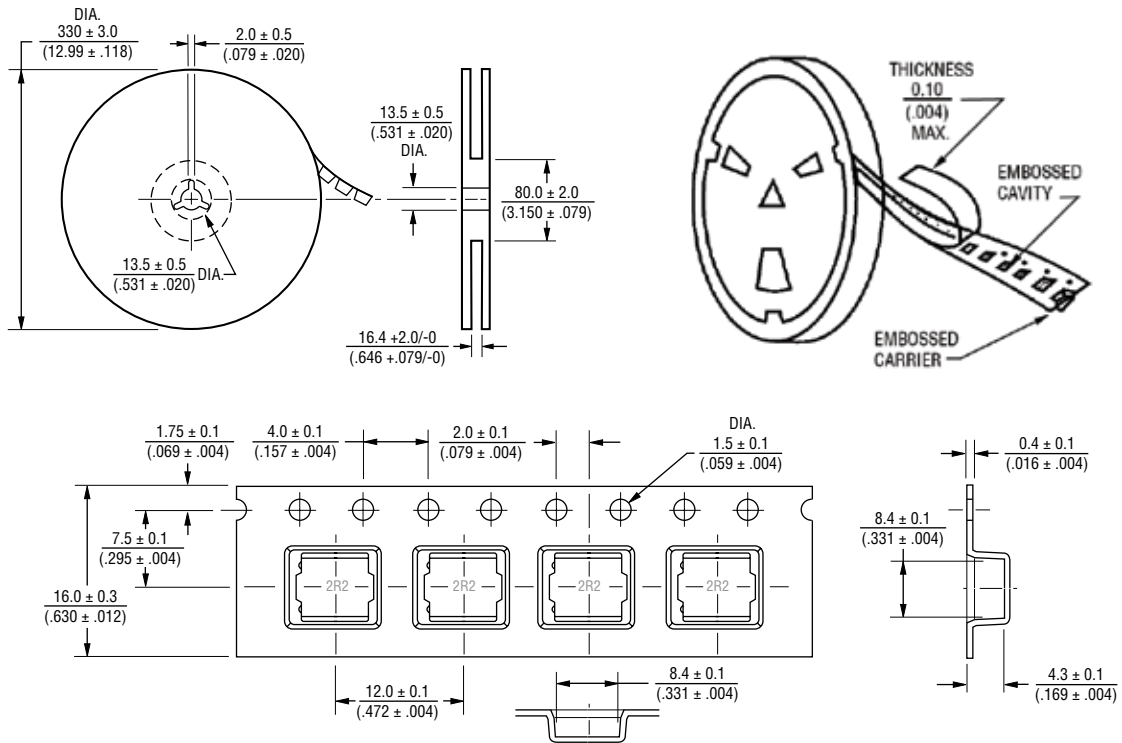
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Soldering Profile



Packaging Specifications



USER DIRECTION OF FEED
 QTY: 1000 PCS. PER REEL

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

07/16

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