



**THE DATASHEET OF
SRN5020TA-1R0Y**





Features

- Semi-shielded construction
- Inductance range: 1 to 47 μH
- Rated current up to 4.1 A
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

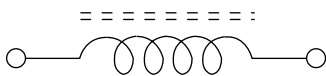
- DC/DC converters
- Power supplies

SRN5020TA Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 100 kHz / 1 V | | Q @ 100 kHz Min. | SRF (MHz) Typ. | DCR (Ω) $\pm 20\%$ | I _{rms} (A) Typ. | I _{sat} (A) Typ. |
|-----------------|----------------------------|----------|------------------|----------------|-----------------------------|---------------------------|---------------------------|
| | L (μH) | Tol. % | | | | | |
| SRN5020TA-1R0Y | 1.0 | ± 30 | 15 | 143 | 0.02 | 4.10 | 5.00 |
| SRN5020TA-1R2Y | 1.2 | ± 30 | 15 | 132 | 0.02 | 3.80 | 4.80 |
| SRN5020TA-1R5Y | 1.5 | ± 30 | 15 | 112 | 0.025 | 3.50 | 4.50 |
| SRN5020TA-2R2M | 2.2 | ± 20 | 15 | 86 | 0.032 | 3.30 | 4.10 |
| SRN5020TA-3R3M | 3.3 | ± 20 | 15 | 75 | 0.043 | 2.80 | 3.50 |
| SRN5020TA-4R7M | 4.7 | ± 20 | 15 | 58 | 0.06 | 2.40 | 2.70 |
| SRN5020TA-5R6M | 5.6 | ± 20 | 15 | 50 | 0.069 | 2.10 | 2.40 |
| SRN5020TA-6R8M | 6.8 | ± 20 | 15 | 46 | 0.09 | 1.90 | 2.10 |
| SRN5020TA-8R2M | 8.2 | ± 20 | 15 | 43 | 0.098 | 1.75 | 1.90 |
| SRN5020TA-100M | 10 | ± 20 | 15 | 41 | 0.11 | 1.60 | 1.70 |
| SRN5020TA-120M | 12 | ± 20 | 15 | 36 | 0.135 | 1.40 | 1.40 |
| SRN5020TA-150M | 15 | ± 20 | 15 | 32 | 0.165 | 1.25 | 1.30 |
| SRN5020TA-180M | 18 | ± 20 | 15 | 28 | 0.19 | 1.17 | 1.20 |
| SRN5020TA-220M | 22 | ± 20 | 15 | 25 | 0.225 | 1.10 | 1.10 |
| SRN5020TA-330M | 33 | ± 20 | 15 | 20 | 0.335 | 0.80 | 0.80 |
| SRN5020TA-470M | 47 | ± 20 | 15 | 16 | 0.46 | 0.70 | 0.70 |

Electrical Schematic

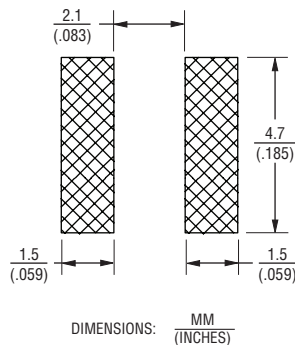


How to Order

SRN5020TA - 2R2M

Model _____
Value Code (see table) _____

Recommended Layout



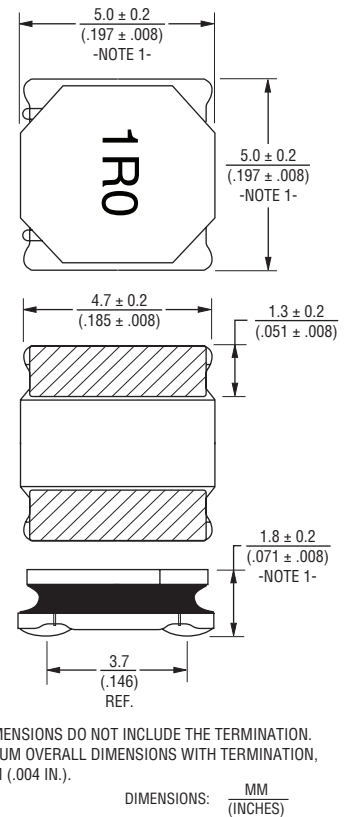
General Specifications

Operating Temperature -55 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component) -55 °C to +125 °C
Temperature Rise 40 °C at rated I_{rms}
Rated Current Inductance drops 30 % at I_{sat}
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

Materials

Core Ferrite
Wire Enameled copper
Terminal Finish Sn
Coating Magnetic epoxy resin
Packaging 2500 pcs. per 13-inch reel

Product Dimensions



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

**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.

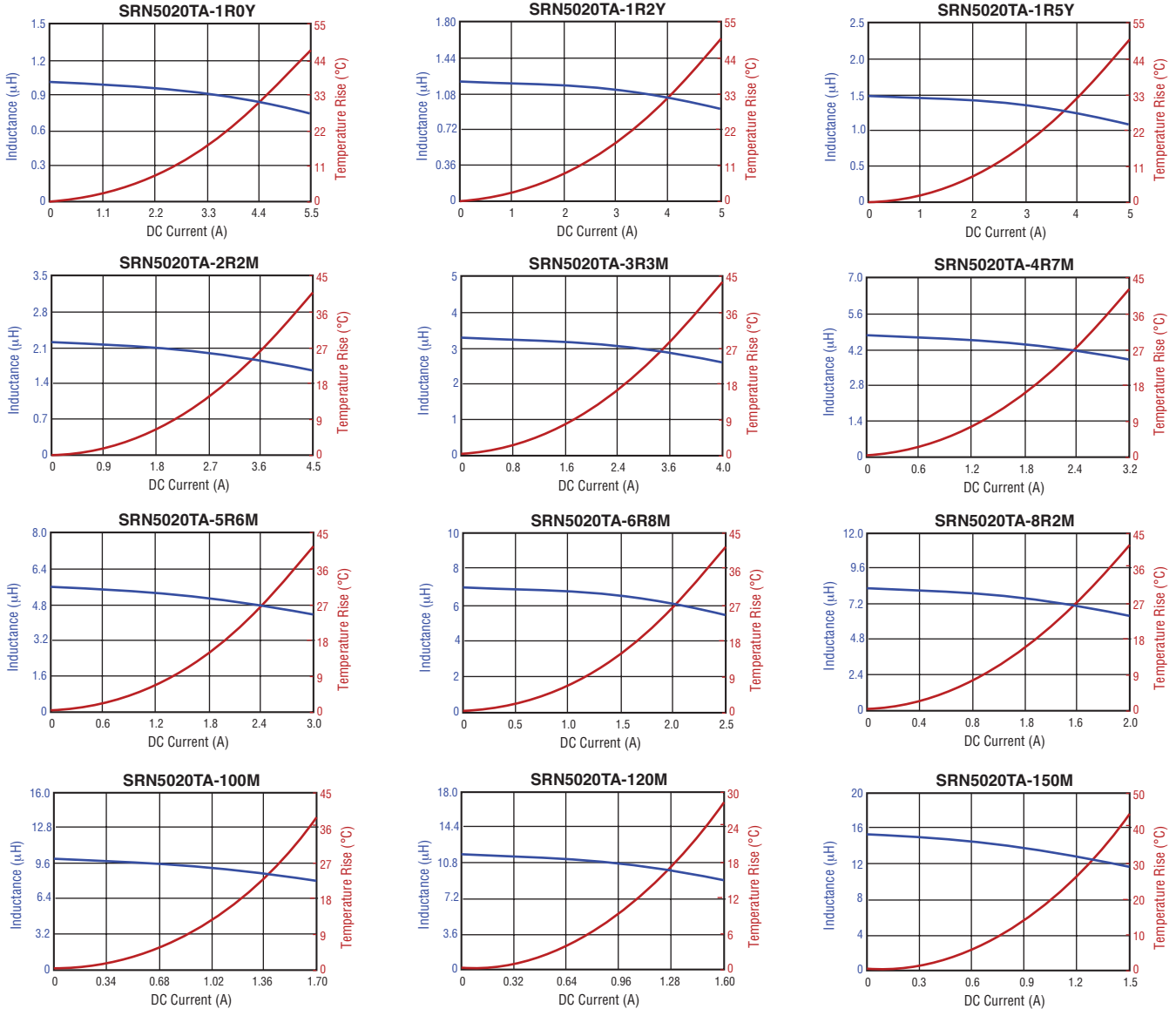
Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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SRN5020TA Series - Semi-shielded Power Inductors



Inductance vs. Current



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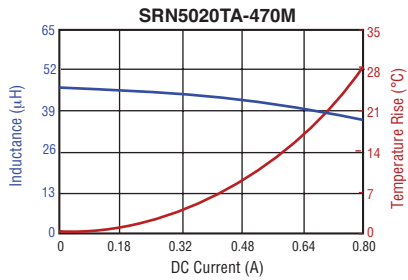
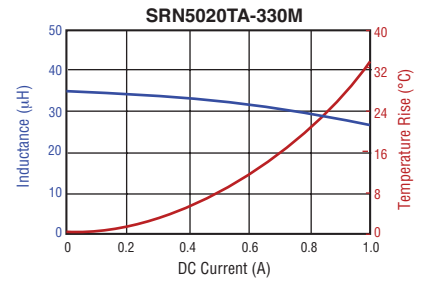
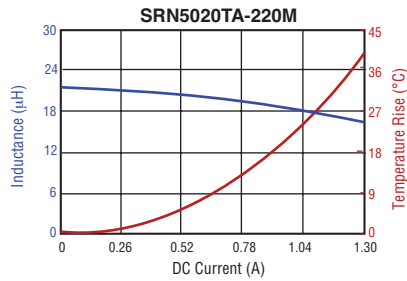
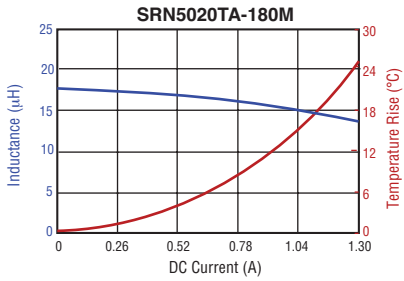
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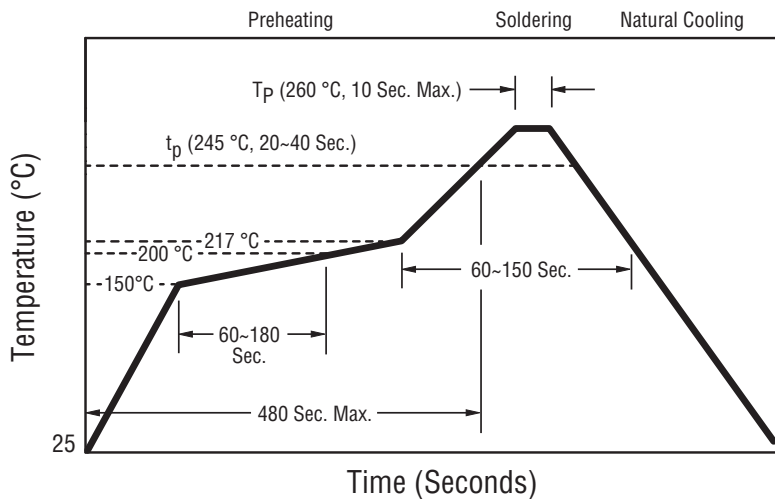
SRN5020TA Series - Semi-shielded Power Inductors



Inductance vs. Current (Continued)



Soldering Profile



Reflow 3 times max.

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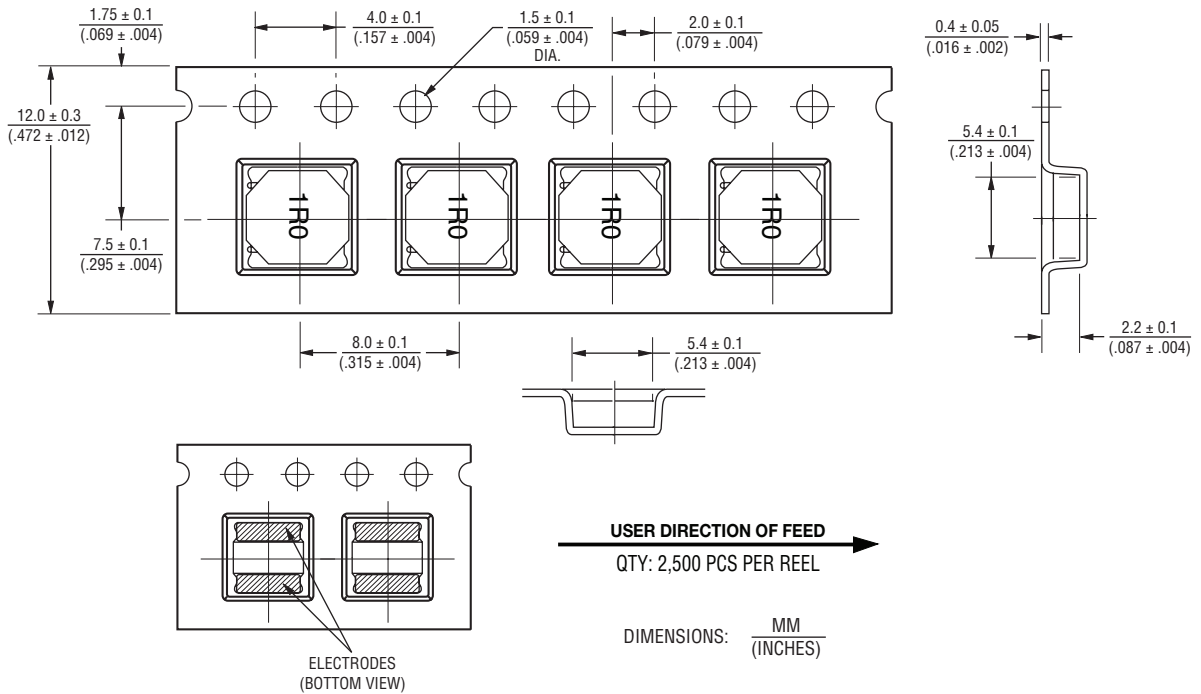
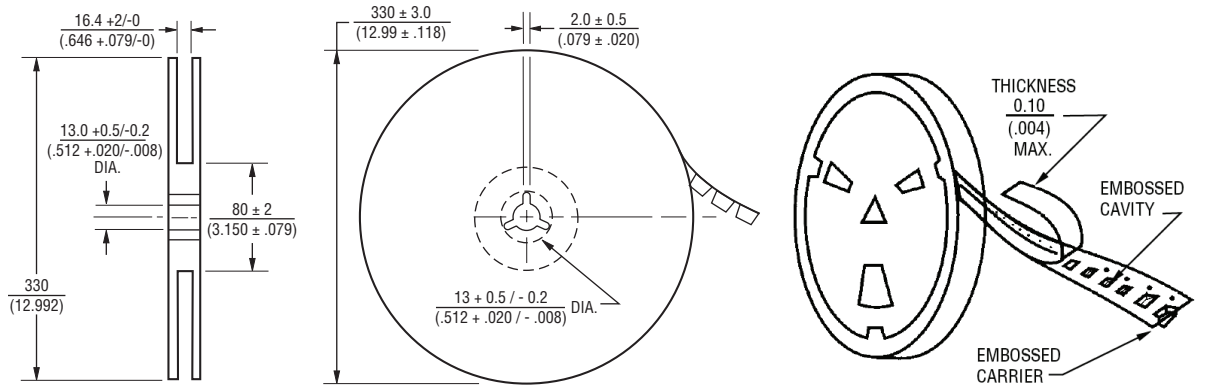
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Packaging Specifications



09/18

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- ✓ Shortage Management
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