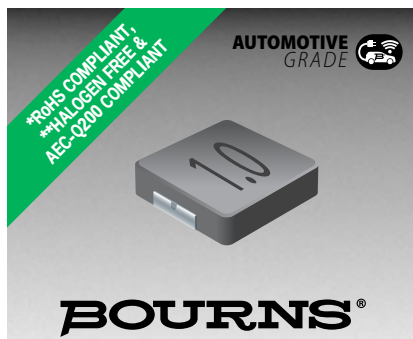




## Features

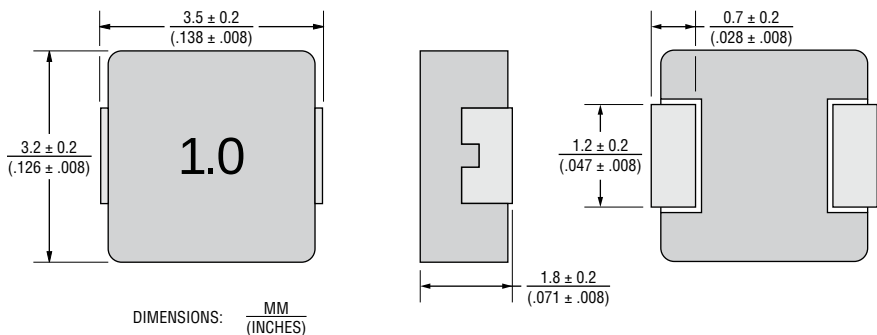
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.1 to 10  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP3020TA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

| Bourns<br>Part Number | Inductance<br>@ 100 kHz / 1 V |            | Q<br>Min. | SRF<br>(MHz)<br>Typ. | DCR<br>(m $\Omega$ )<br>Typ. | DCR<br>(m $\Omega$ )<br>Max. | I rms<br>(A)<br>Typ. | I sat<br>(A)<br>Typ. |
|-----------------------|-------------------------------|------------|-----------|----------------------|------------------------------|------------------------------|----------------------|----------------------|
|                       | L ( $\mu$ H)                  | Tol. %     |           |                      |                              |                              |                      |                      |
| SRP3020TA-R10Y        | 0.10                          | $\pm 30$ % | 5         | 340                  | 6.6                          | 9                            | 10.5                 | 14.0                 |
| SRP3020TA-R22Y        | 0.22                          | $\pm 30$ % | 5         | 185                  | 11                           | 14                           | 9.0                  | 11.2                 |
| SRP3020TA-R33M        | 0.33                          | $\pm 20$ % | 5         | 160                  | 17                           | 21                           | 8.0                  | 10.0                 |
| SRP3020TA-R47M        | 0.47                          | $\pm 20$ % | 5         | 105                  | 19.7                         | 23                           | 7.0                  | 9.0                  |
| SRP3020TA-R68M        | 0.68                          | $\pm 20$ % | 5         | 94                   | 25.5                         | 29                           | 5.5                  | 7.0                  |
| SRP3020TA-1R0M        | 1.0                           | $\pm 20$ % | 10        | 82                   | 32                           | 38                           | 4.0                  | 5.0                  |
| SRP3020TA-1R5M        | 1.5                           | $\pm 20$ % | 10        | 54                   | 42                           | 50                           | 3.8                  | 4.0                  |
| SRP3020TA-2R2M        | 2.2                           | $\pm 20$ % | 10        | 45                   | 65                           | 75                           | 3.5                  | 3.7                  |
| SRP3020TA-3R3M        | 3.3                           | $\pm 20$ % | 10        | 40                   | 125                          | 145                          | 3.0                  | 3.5                  |
| SRP3020TA-4R7M        | 4.7                           | $\pm 20$ % | 10        | 34                   | 172                          | 200                          | 2.6                  | 3.0                  |
| SRP3020TA-5R6M        | 5.6                           | $\pm 20$ % | 10        | 29                   | 205                          | 238                          | 2.2                  | 2.6                  |
| SRP3020TA-6R8M        | 6.8                           | $\pm 20$ % | 10        | 24                   | 260                          | 300                          | 1.9                  | 2.2                  |
| SRP3020TA-8R2M        | 8.2                           | $\pm 20$ % | 10        | 22                   | 340                          | 390                          | 1.6                  | 1.9                  |
| SRP3020TA-100M        | 10                            | $\pm 20$ % | 10        | 20                   | 366                          | 422                          | 1.4                  | 1.6                  |

### Product Dimensions



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

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### Additional Information

Click these links for more information:



### General Specifications

Operating Temperature

..... -55 °C to +150 °C  
(Temperature rise included)

Storage Temperature (Component)

..... -55 °C to +150 °C

Rated Current

..... Inductance drops 30 % at Isat

Temperature Rise .... 40 °C at rated Irms<sup>1</sup>

MSL ..... 1

ESD Classification (HBM)..... N/A

Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

Core.....Metal alloy powder

Wire.....Enamelled copper

Terminal Finish ..... Sn/Ni

Packaging..... 3000 pcs. per 13-inch reel

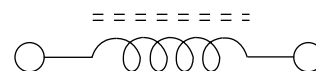
### How to Order

**SRP3020TA - 1R0M**

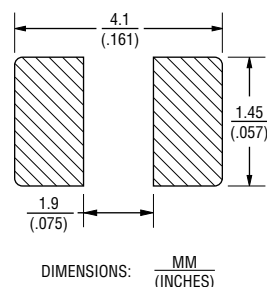
Model \_\_\_\_\_

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

### Schematic



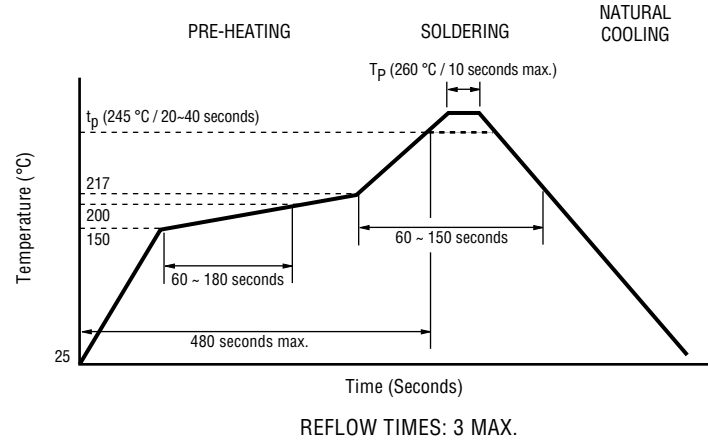
### Recommended Layout



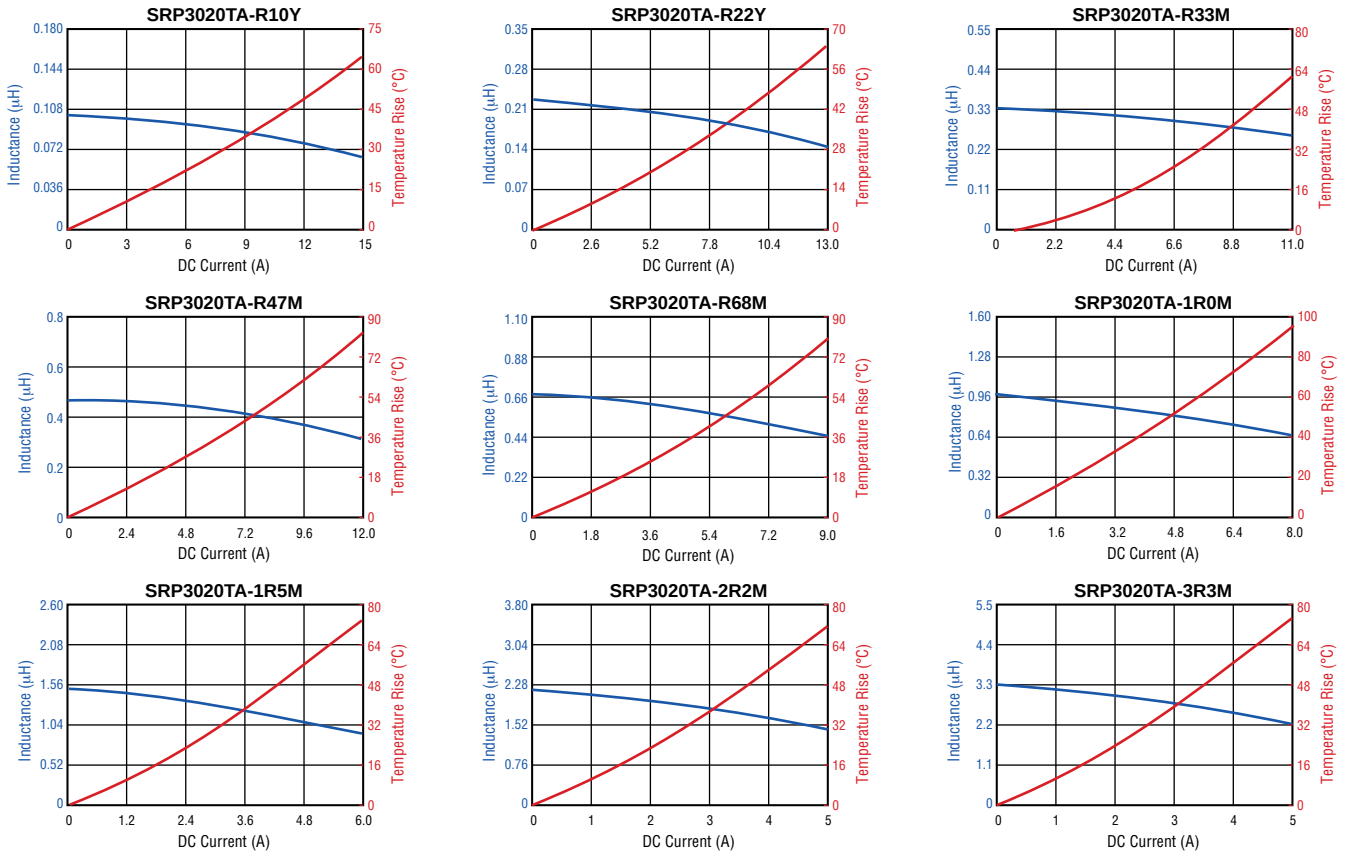
# SRP3020TA Series – Shielded Power Inductors

**BOURNS®**

## Soldering Profile



## L vs. I Charts



Specifications are subject to change without notice.

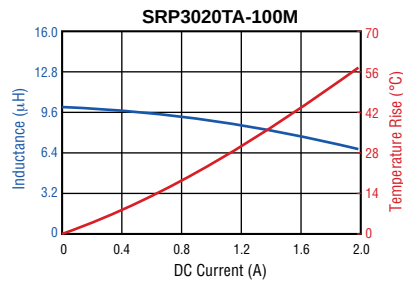
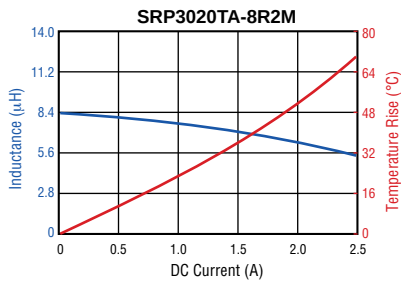
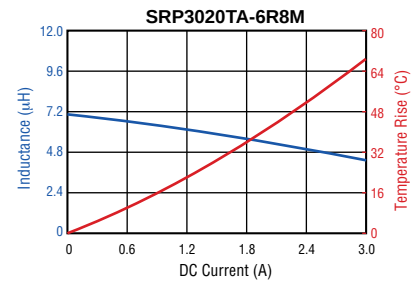
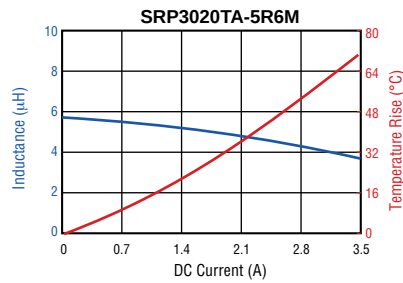
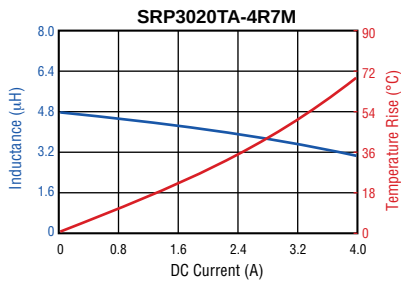
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## SRP3020TA Series – Shielded Power Inductors

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### L vs. I Charts (Continued)



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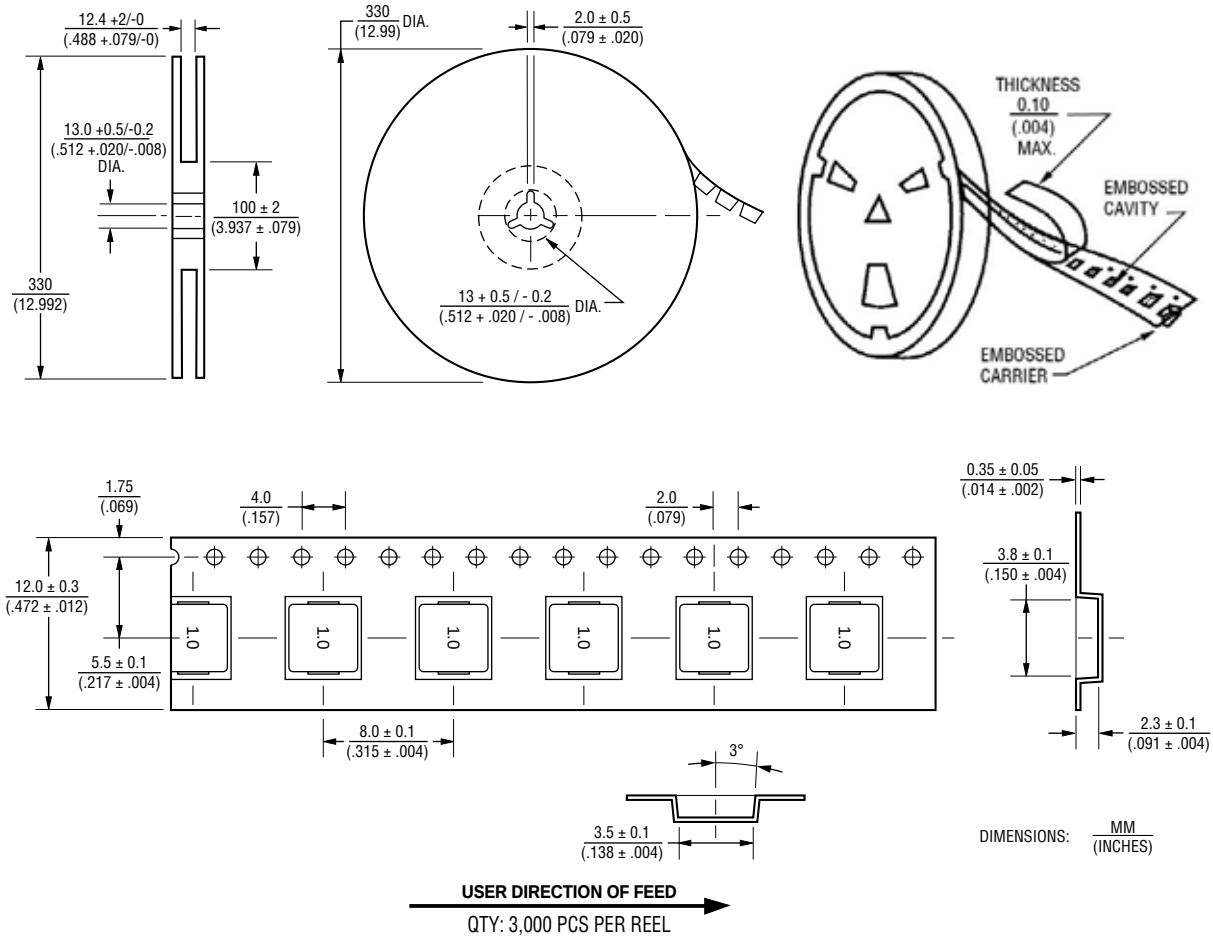
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# SRP3020TA Series – Shielded Power Inductors

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## Packaging Specifications



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Asia: Tel: +886-2-2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

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