



**THE DATASHEET OF
SRP3012TA-5R6M**





Features

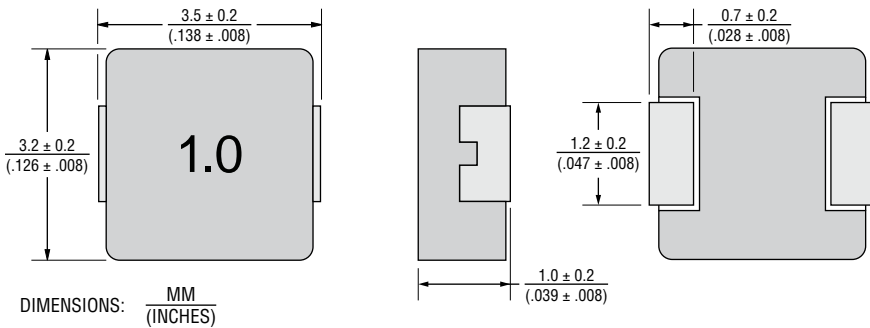
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.15 to 10 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP3012TA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz / 1 V | | SRF (MHz) Typ. | DCR (m Ω) Typ. | DCR (m Ω) Max. | I rms (A) Typ. | I sat (A) Typ. |
|--------------------|----------------------------|------------|----------------|------------------------|------------------------|----------------|----------------|
| | L (μ H) | Tol. % | | | | | |
| SRP3012TA-R15Y | 0.15 | ± 20 % | 195 | 9.6 | 11 | 10 | 14 |
| SRP3012TA-R22M | 0.22 | ± 20 % | 170 | 14 | 17 | 6.5 | 10 |
| SRP3012TA-R33M | 0.33 | ± 20 % | 150 | 16 | 20 | 6.2 | 9.2 |
| SRP3012TA-R36M | 0.36 | ± 20 % | 125 | 18.5 | 23 | 6.0 | 8.5 |
| SRP3012TA-R47M | 0.47 | ± 20 % | 107 | 25 | 30 | 5.0 | 7.2 |
| SRP3012TA-R56M | 0.56 | ± 20 % | 90 | 31 | 36 | 4.5 | 6.6 |
| SRP3012TA-R68M | 0.68 | ± 20 % | 85 | 34 | 40 | 4.0 | 6.1 |
| SRP3012TA-R82M | 0.82 | ± 20 % | 71 | 41 | 48 | 3.5 | 5.8 |
| SRP3012TA-1R0M | 1.0 | ± 20 % | 65 | 50 | 60 | 3.3 | 5.5 |
| SRP3012TA-1R5M | 1.5 | ± 20 % | 55 | 71 | 85 | 3.0 | 4.0 |
| SRP3012TA-2R2M | 2.2 | ± 20 % | 45 | 98 | 115 | 2.7 | 3.4 |
| SRP3012TA-3R3M | 3.3 | ± 20 % | 40 | 191 | 210 | 2.0 | 3.1 |
| SRP3012TA-4R7M | 4.7 | ± 20 % | 35 | 266 | 293 | 1.6 | 2.8 |
| SRP3012TA-5R6M | 5.6 | ± 20 % | 32 | 310 | 360 | 1.5 | 2.2 |
| SRP3012TA-6R8M | 6.8 | ± 20 % | 29 | 360 | 400 | 1.4 | 2.0 |
| SRP3012TA-8R2M | 8.2 | ± 20 % | 26 | 420 | 463 | 1.2 | 1.7 |
| SRP3012TA-100M | 10 | ± 20 % | 23 | 498 | 550 | 1.0 | 1.4 |

Product Dimensions



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 Irms¹
 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

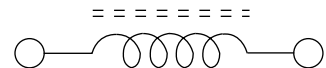
Core.....Metal alloy powder
 Wire Enameled copper
 Terminal Finish Sn/Ni
 Packaging..... 4000 pcs. per 13-inch reel

How to Order

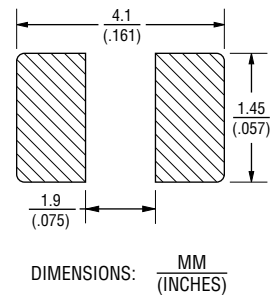
SRP3012TA - 1R0M

Model _____
 Value Code (see table) _____

Schematic



Recommended Layout



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

SRP3012TA Series - Shielded Power Inductors

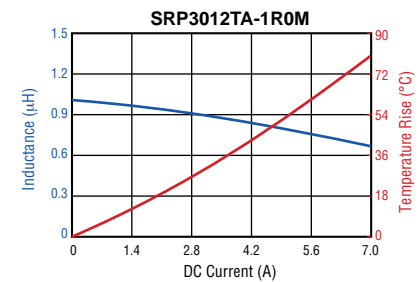
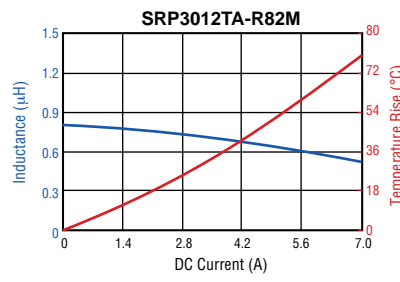
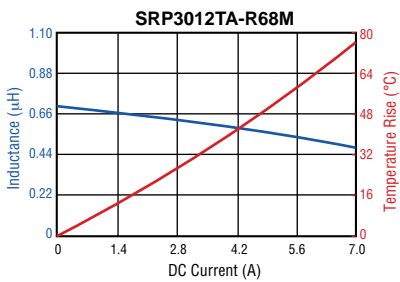
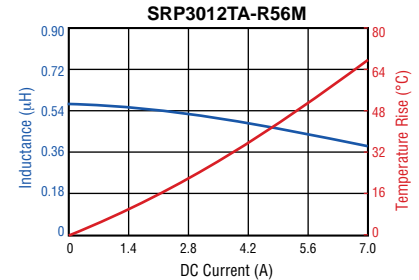
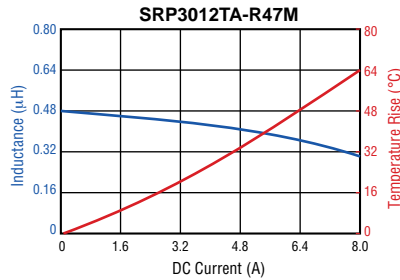
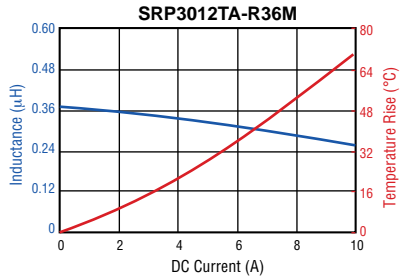
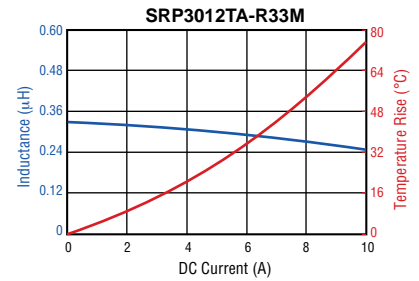
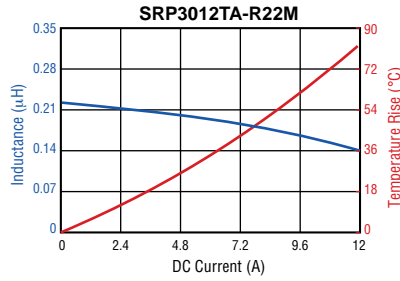
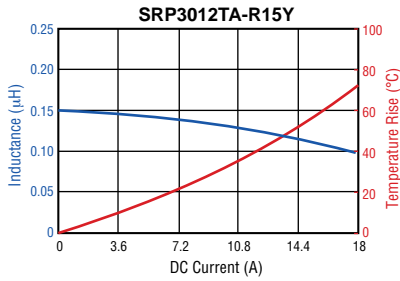


Soldering Profile



REFLOW TIMES: 3 MAX.

L vs. I Charts



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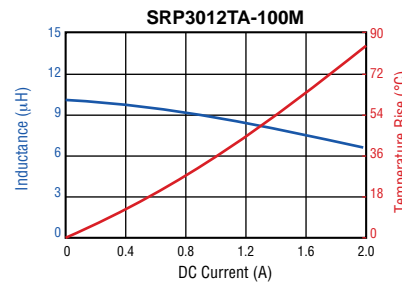
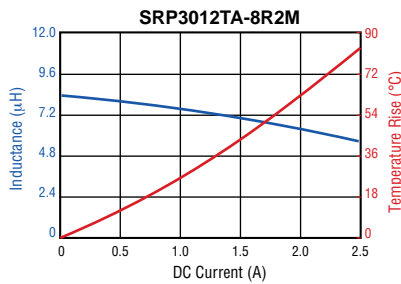
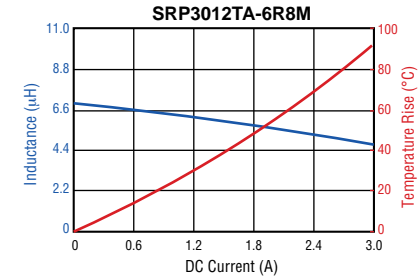
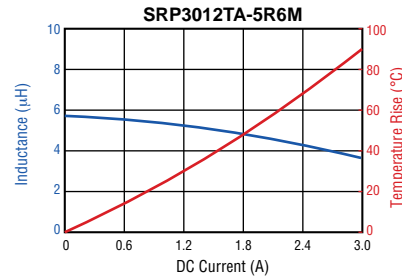
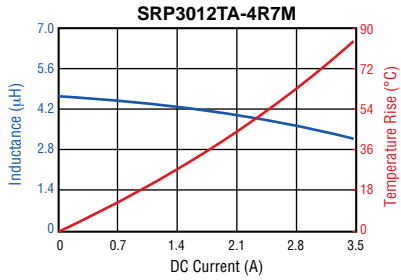
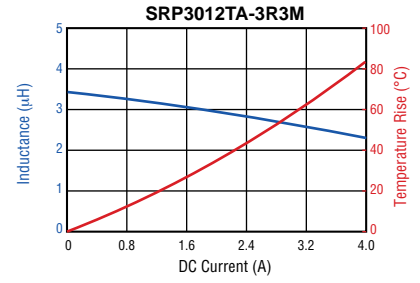
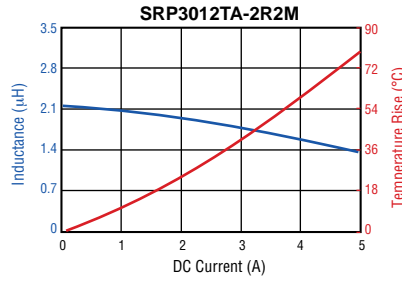
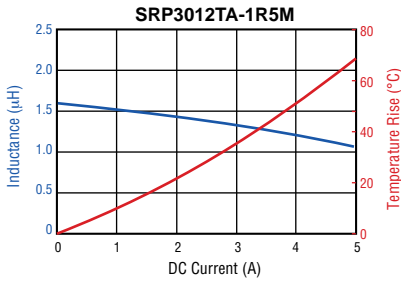
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SRP3012TA Series - Shielded Power Inductors



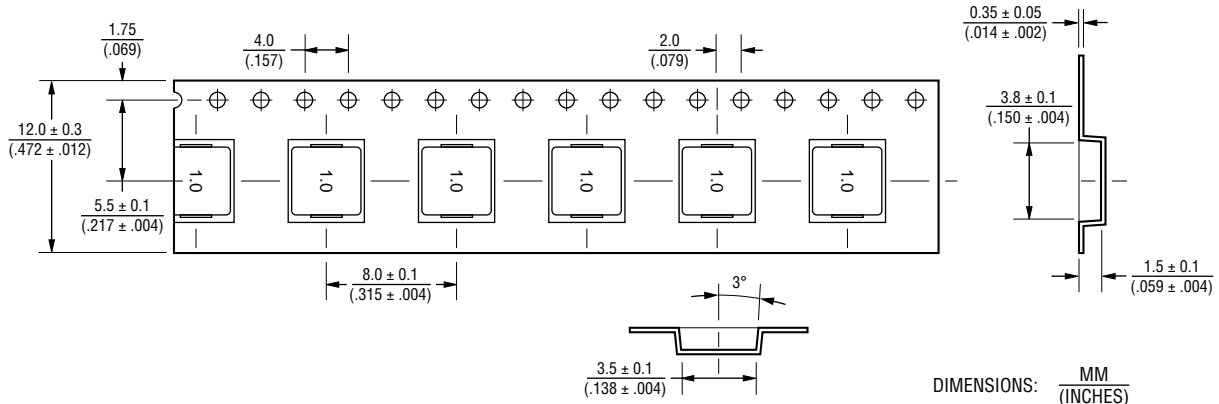
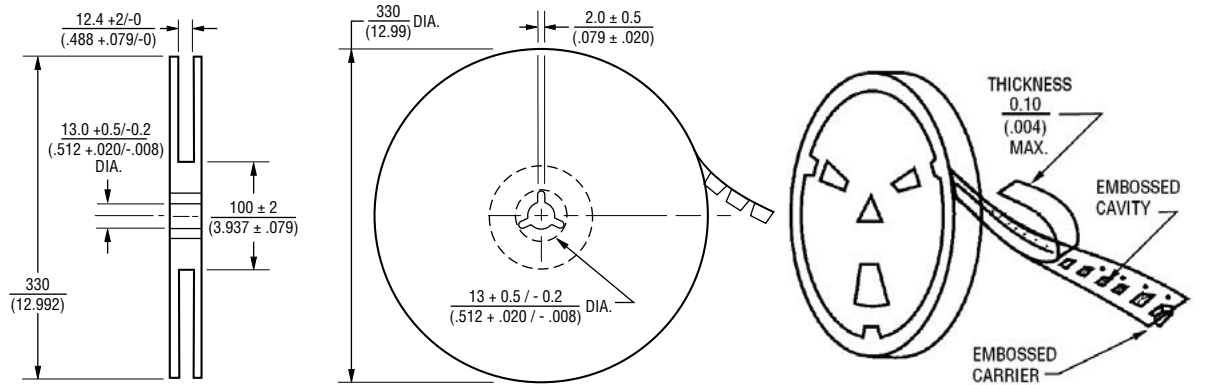
L vs. I Charts (Continued)



SRP3012TA Series - Shielded Power Inductors

BOURNS®

Packaging Specifications



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

USER DIRECTION OF FEED →

QTY: 4,000 PCS PER REEL

BOURNS®

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REV. 11/19

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