



Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Low profile - 1.0 mm

- Inductance range: 0.10 to 10 μ H
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRP4012TA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

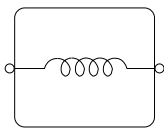
| Bourns Part Number | Inductance @ 100 KHz / 1 V | | Q (Min.) @ 100 KHz / 1 V | SRF (MHz) Typ. | DCR (m Ω) Typ. | DCR (m Ω) Max. | I _{rms} (A) | I _{sat} (A) | Terminal Type |
|--------------------|----------------------------|----------|--------------------------|----------------|------------------------|------------------------|----------------------|----------------------|---------------|
| | L (μ H) | Tol. (%) | | | | | | | |
| SRP4012TA-R10Y | 0.10 | ±30 | 5 | 400 | 4.3 | 5.5 | 11.5 | 25 | Lead Frame |
| SRP4012TA-R22M | 0.22 | ±20 | 5 | 200 | 6.6 | 8 | 8.5 | 20 | |
| SRP4012TA-R36M | 0.36 | ±20 | 10 | 143 | 15.5 | 18 | 6.5 | 8.5 | |
| SRP4012TA-R47M | 0.47 | ±20 | 10 | 120 | 18 | 20 | 6.0 | 6.5 | |
| SRP4012TA-R60M | 0.60 | ±20 | 10 | 117 | 22.5 | 26 | 5.3 | 6 | |
| SRP4012TA-1R0M | 1.0 | ±20 | 10 | 80 | 41 | 47 | 4.0 | 6 | |
| SRP4012TA-1R2M | 1.2 | ±20 | 10 | 70 | 48 | 56 | 3.5 | 5 | |
| SRP4012TA-1R5M | 1.5 | ±20 | 10 | 62 | 55 | 63.3 | 3.0 | 4 | |
| SRP4012TA-2R2M | 2.2 | ±20 | 10 | 58 | 69.2 | 80 | 2.8 | 3.5 | |
| SRP4012TA-3R3M | 3.3 | ±20 | 10 | 41 | 84 | 97 | 2.3 | 3 | |
| SRP4012TA-4R7M | 4.7 | ±20 | 10 | 35 | 128 | 145 | 2.0 | 2.5 | |
| SRP4012TA-5R6M | 5.6 | ±20 | 10 | 30 | 180 | 208 | 1.7 | 2.3 | |
| SRP4012TA-6R8M | 6.8 | ±20 | 10 | 28 | 300 | 360 | 1.5 | 1.7 | |
| SRP4012TA-8R2M | 8.2 | ±20 | 10 | 25 | 313 | 376 | 1.4 | 1.6 | |
| SRP4012TA-100M | 10.0 | ±20 | 10 | 23 | 410 | 463 | 1.3 | 1.4 | |

How to Order

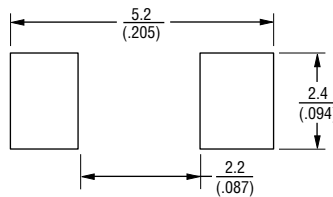
SRP4012TA - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



Recommended Layout



General Specifications

Test Voltage 1.0 V
 Test Frequency 100 KHz
 Operating Temperature -55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature -55 °C to +150 °C
 Rated Current Inductance drops 20 % at I_{sat}
 Temperature Rise 40 °C at rated I_{rms}
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

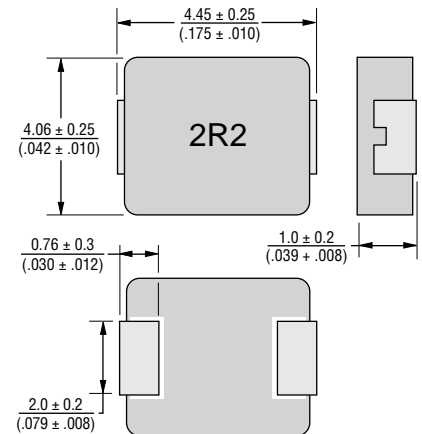
Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

Core Carbonyl powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 4000 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



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

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* 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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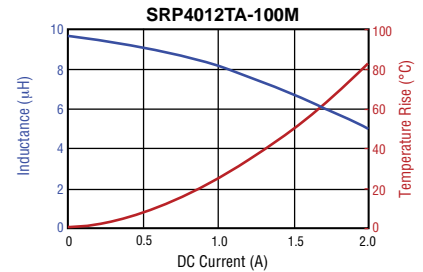
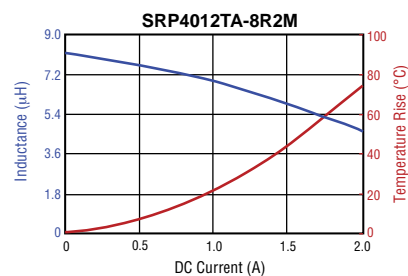
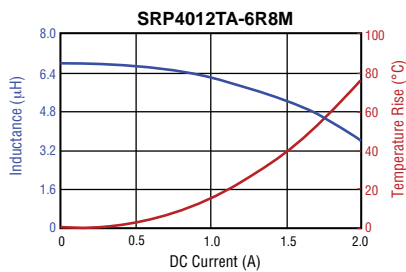
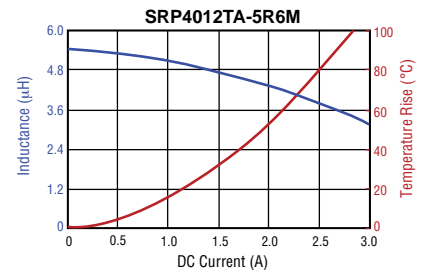
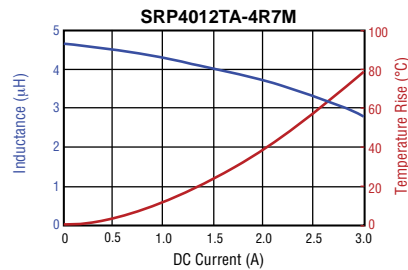
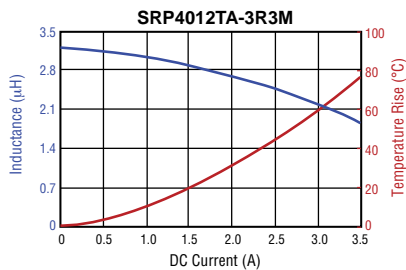
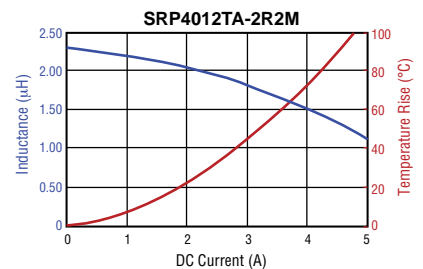
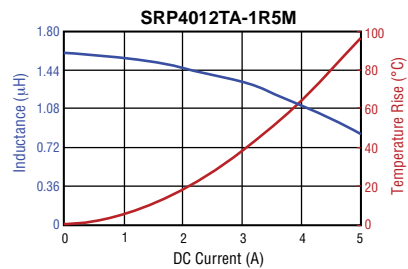
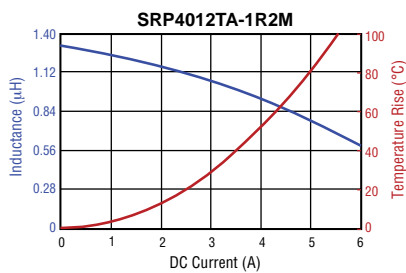
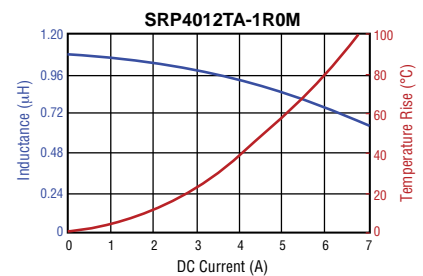
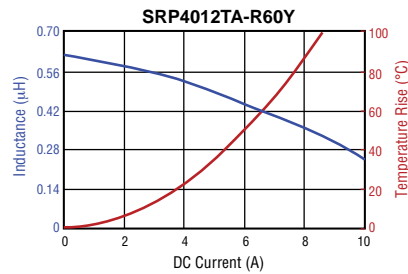
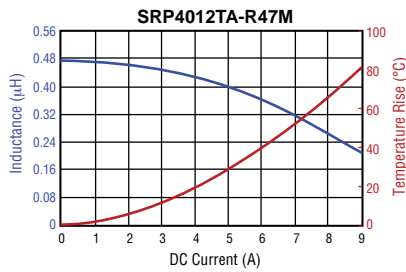
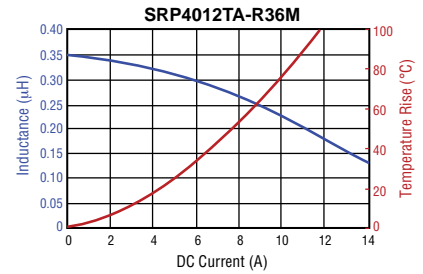
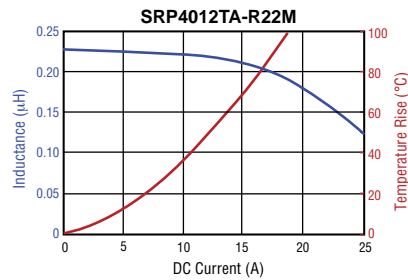
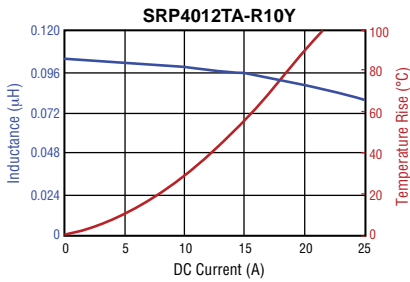


WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

SRP4012TA Series - Shielded Power Inductors

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L vs. I Charts



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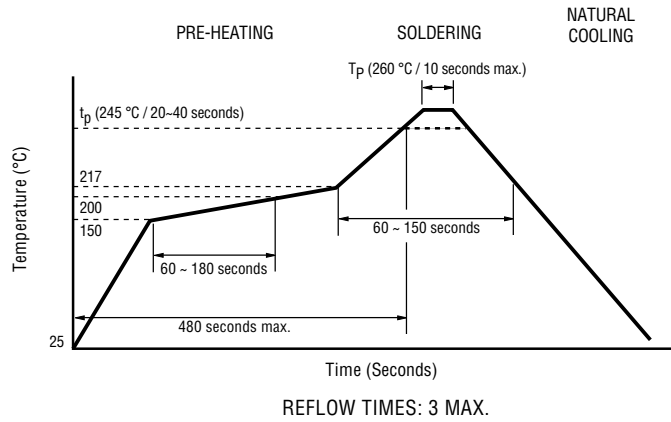
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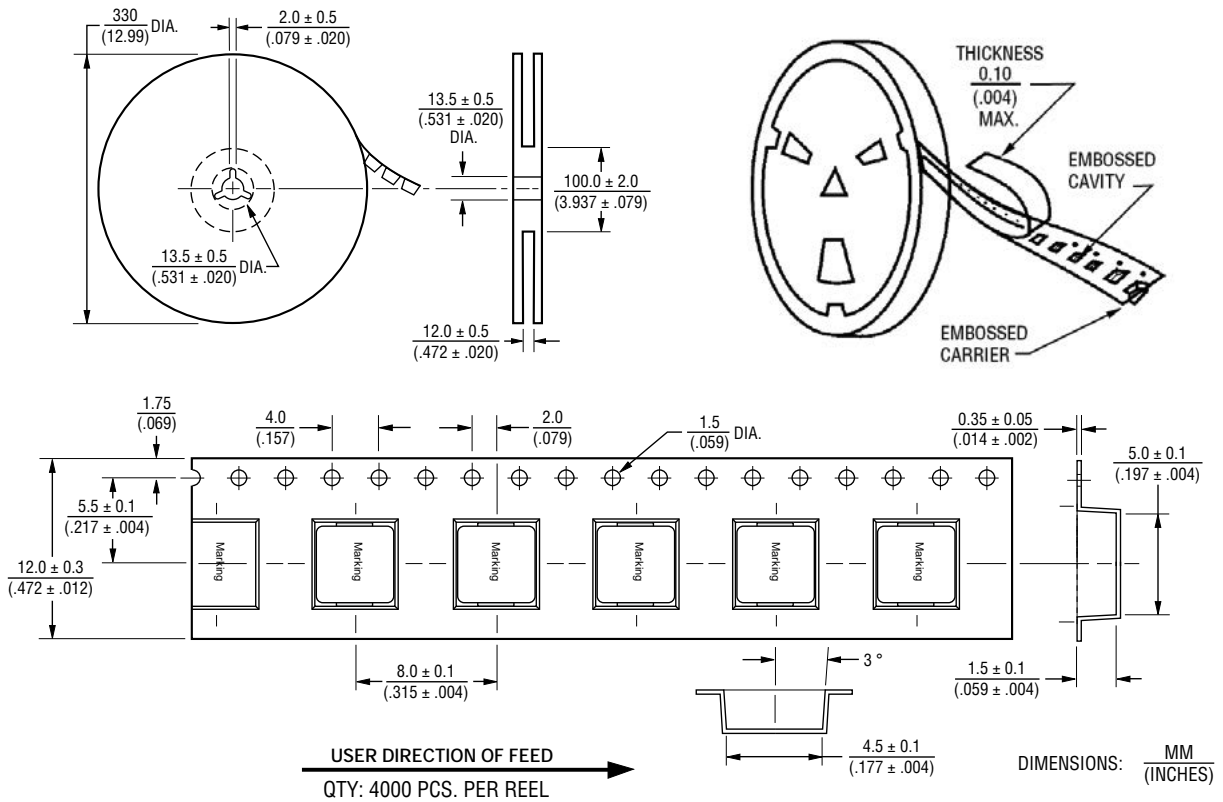
SRP4012TA Series - Shielded Power Inductors

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Soldering Profile



Packaging Specifications



REV. 11/19

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