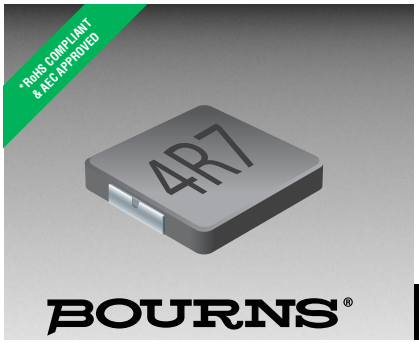



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Low profile - 1.0 mm
- Inductance range: 0.10 to 10 µH
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

## Applications

- Automotive systems:
  - Driver assistant
  - Information
  - Entertainment
  - Lighting
- DC/DC converters
- Power supplies

# 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 (mΩ) Typ. | DCR (mΩ) Max. | Irms (A) | Isat (A) |
|---|---|---|---|---|---|---|---|---|
| | L (µH) | Tol. (%) | | | | | | |
| SRP4012TA-R10Y | 0.10 | ±30 | 5 | 400 | 4.3 | 5.5 | 11.5 | 25 |
| 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 |

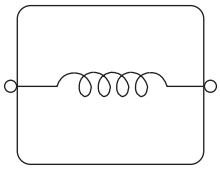
### How to Order

**SRP4012TA - 100M**

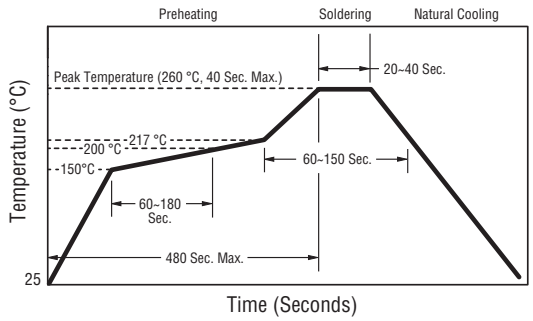
Model

Value Code (see table)

### Electrical Schematic



### Soldering Profile




Reflow Times: 3 Times Max.

**Peak Temperature:**
**260 °C max.**

**Max. Peak Temperature 260 °C:**
**40 sec. max.**

**Max. Time Above 217 °C:**
**60~150 sec. max.**

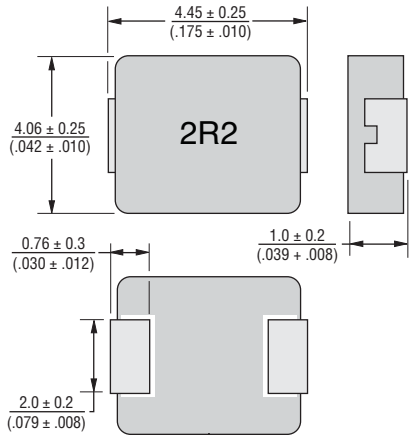
### General Specifications

Test Voltage .....1.0 V
Test Frequency ..... 100 KHz
Operating Temperature
.....-40 °C to +150 °C
(Temperature rise included)
Storage Temperature
.....-40 °C to +125 °C
Rated Current
..... Inductance drops 20 % at Isat
Temperature Rise .....40 °C at rated Irms
Resistance to Soldering Heat
..... +260 °C, 40 sec. max.

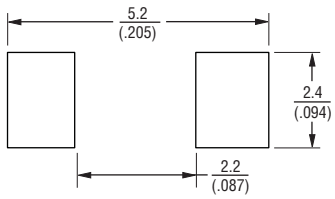
### Materials

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

### Product Dimensions




### Recommended Layout



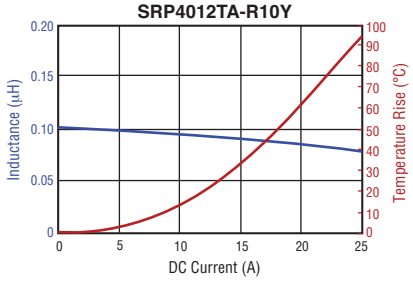

DIMENSIONS: MM (INCHES)

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

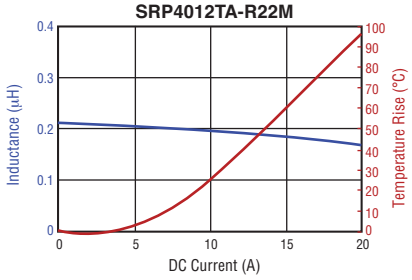
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

## L vs. I Charts

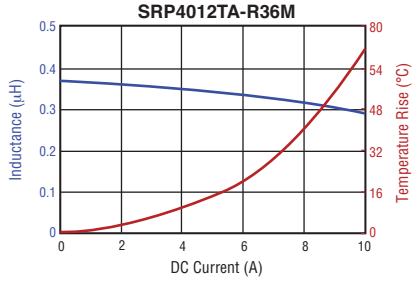
SRP4012TA-R10Y



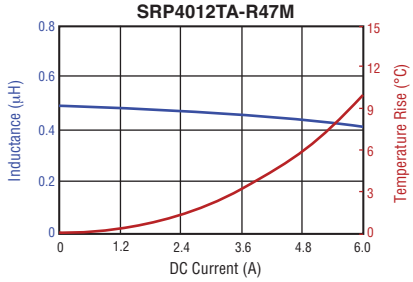

SRP4012TA-R22M



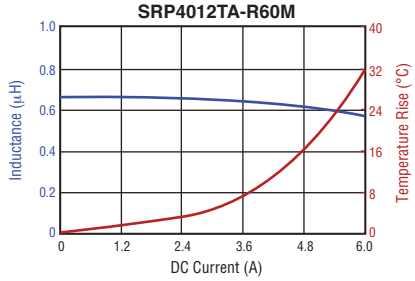

SRP4012TA-R36M



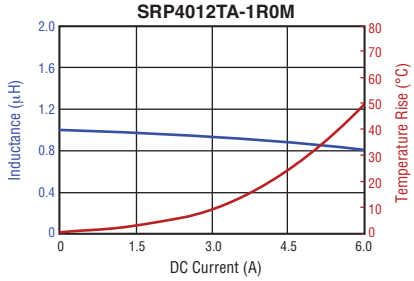

SRP4012TA-R47M



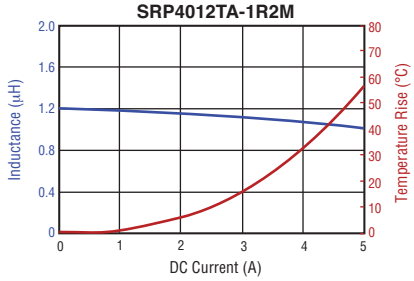

SRP4012TA-R60M



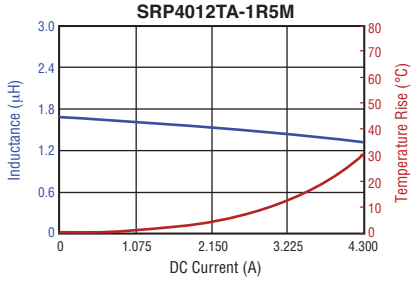

SRP4012TA-1R0M



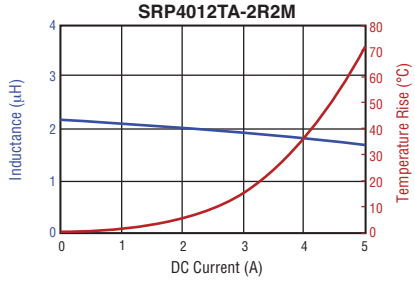

SRP4012TA-1R2M



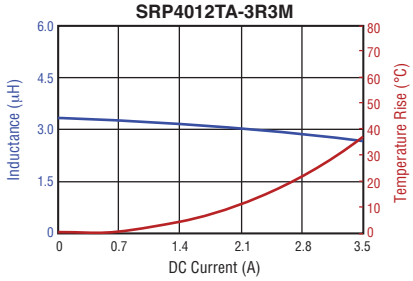

SRP4012TA-1R5M



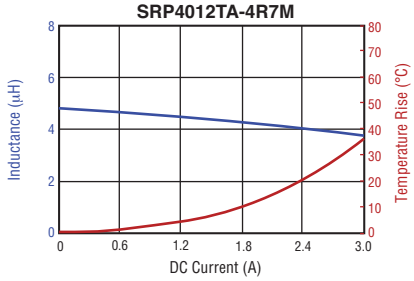

SRP4012TA-2R2M



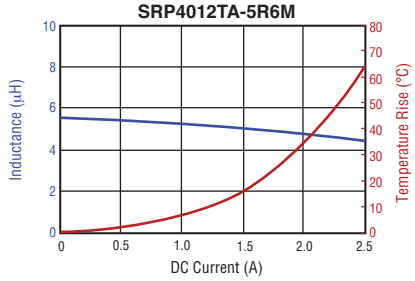

SRP4012TA-3R3M



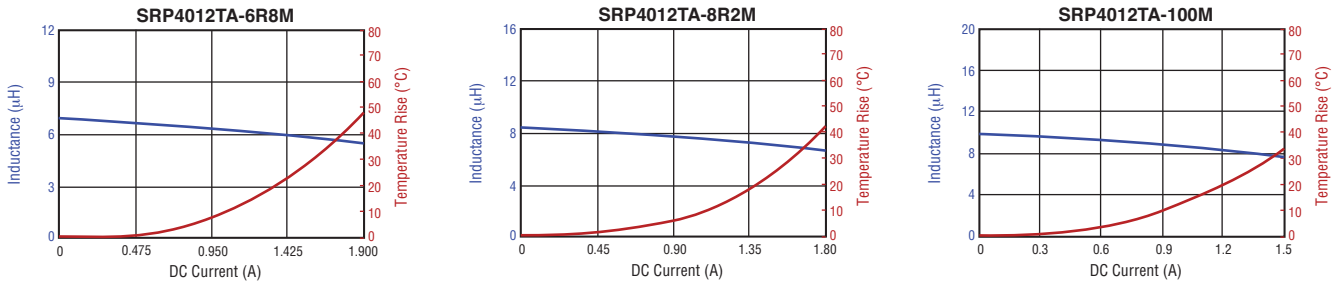

SRP4012TA-4R7M



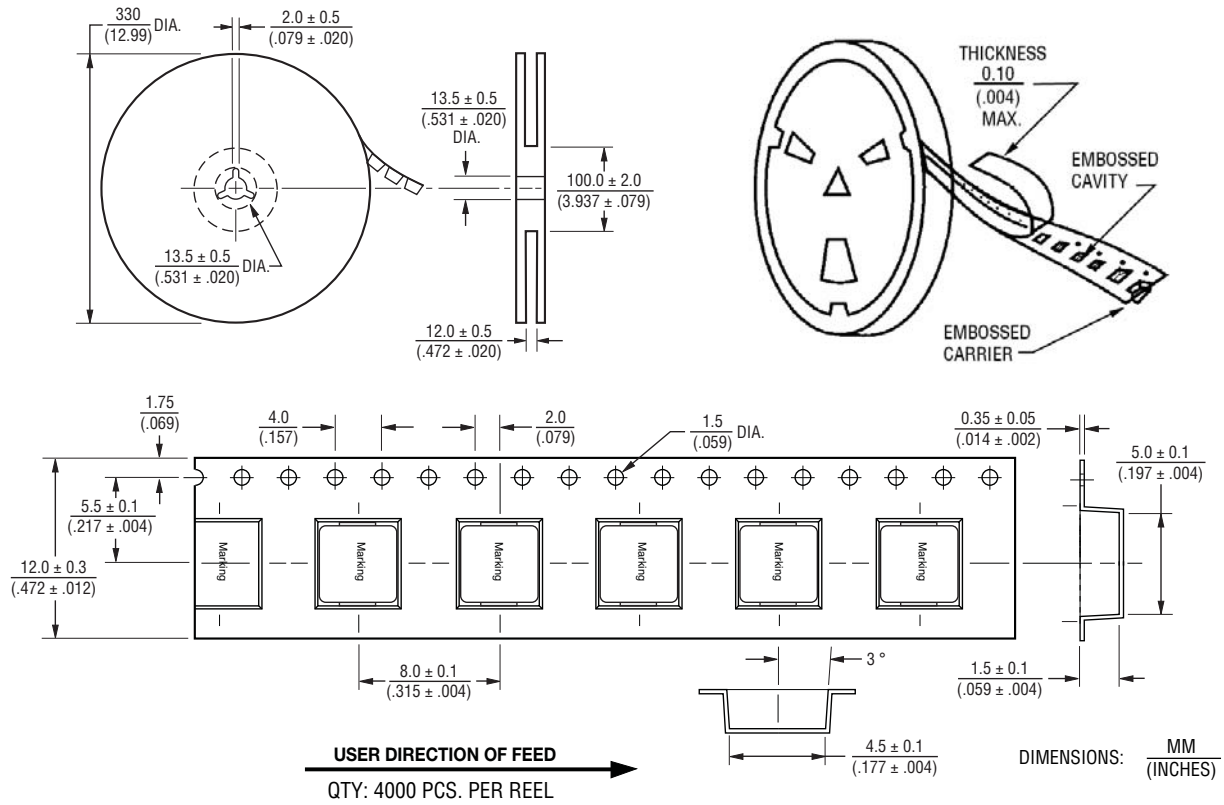

SRP4012TA-5R6M



## L vs. I Charts




## Packaging Specifications




BOURNS®

**Asia-Pacific:** Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116
**EMEA:** Tel: +36 88 520 390 • Fax: +36 88 520 211
**The Americas:** Tel: +1-951 781-5500 • Fax: +1-951 781-5700
**www.bourns.com**

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