



**THE DATASHEET OF  
SRP4012TA-1R0M**





## Features

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

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

## SRP4012TA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

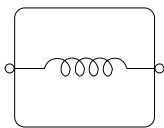
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @ 100 KHz / 1 V	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP4012TA-R10Y	0.10	$\pm$ 30	5	400	4.3	5.5	11.5	25	Lead Frame
SRP4012TA-R22M	0.22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

### How to Order

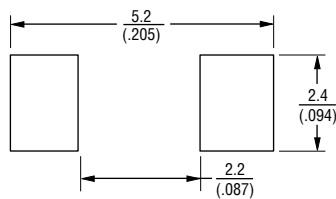
SRP4012TA - 100M

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<sub>sat</sub>  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

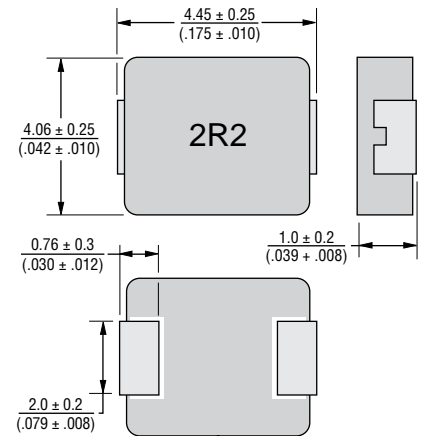
Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### 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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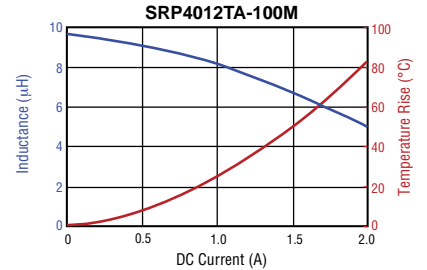
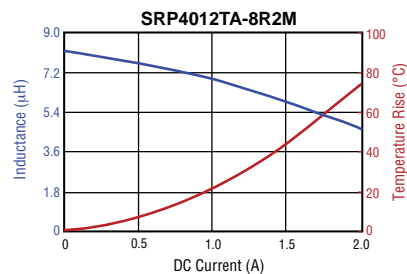
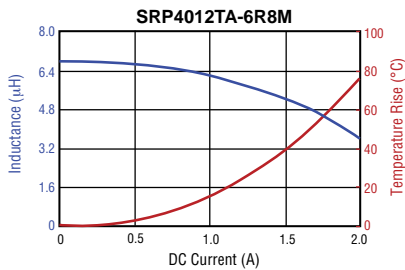
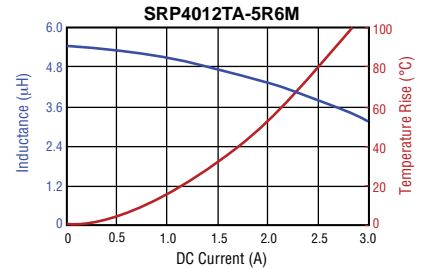
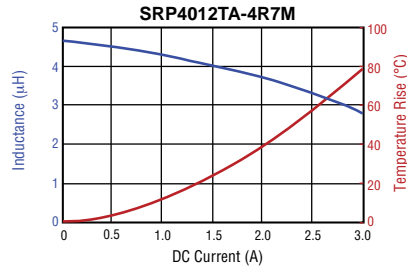
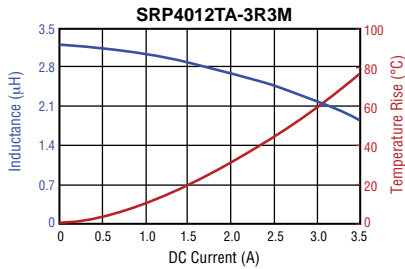
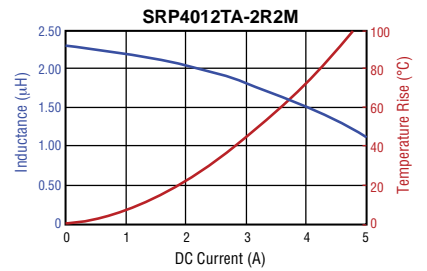
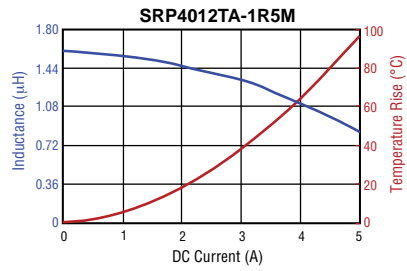
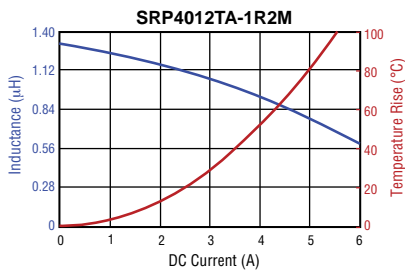
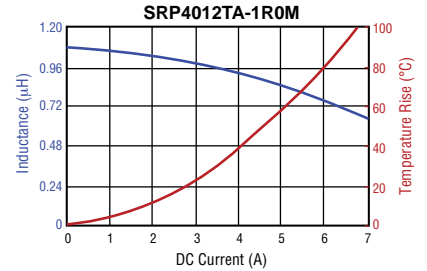
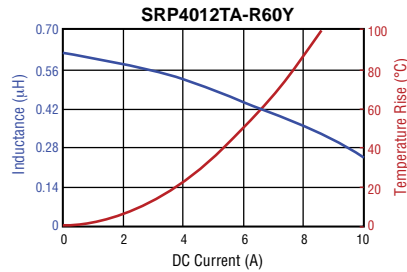
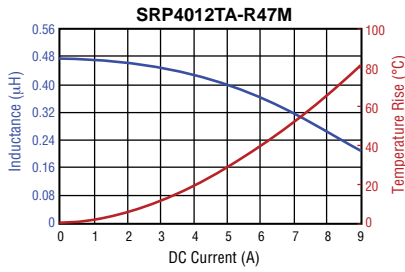
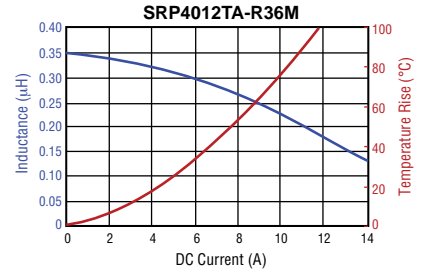
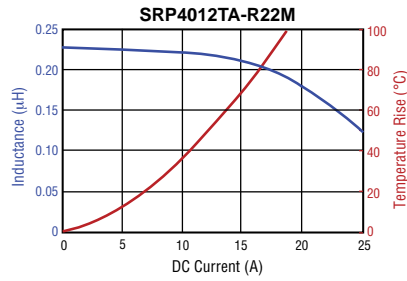
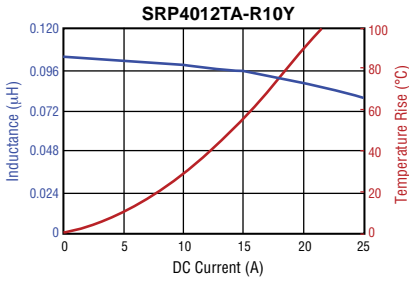


**WARNING**  
 Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# SRP4012TA Series - Shielded Power Inductors



## L vs. I Charts



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