



## 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

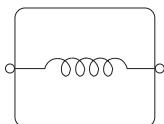
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @100 KHz / 1 V	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	Irms (A)	Isat (A)	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP4012TA-R10Y	0.10	$\pm 30$	5	400	4.3	5.5	11.5	25	Lead Frame
SRP4012TA-R22M	0.22	$\pm 20$	5	200	6.6	8	8.5	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

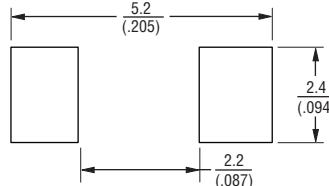
SRP4012TA - 100M

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

### Electrical Schematic



### Recommended Layout



### General Specifications

Test Voltage	.....	1.0 V
Test Frequency	.....	100 KHz
Operating Temperature	.....	-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
Moisture Sensitivity Level	.....	1
ESD Classification (HBM)	.....	N/A

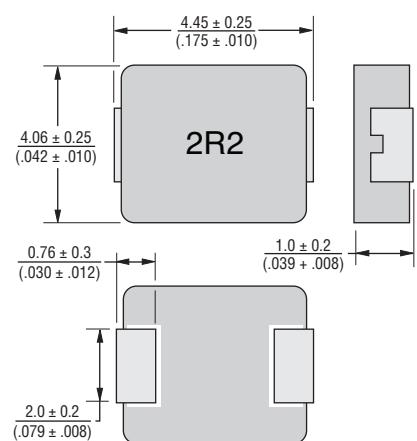
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

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

### Product Dimensions

#### Lead Frame Terminal



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



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

\* 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.

Specifications are subject to change without notice.

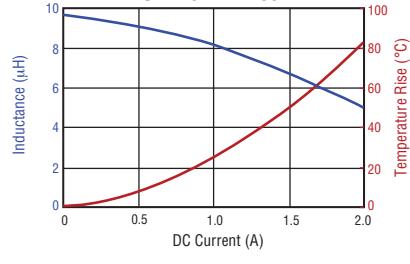
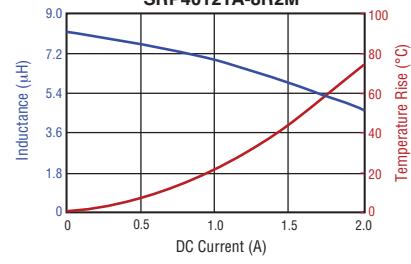
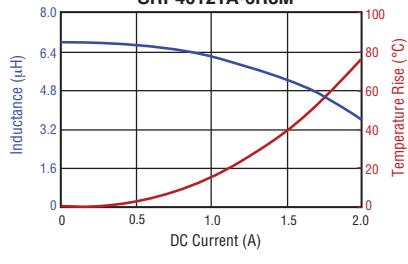
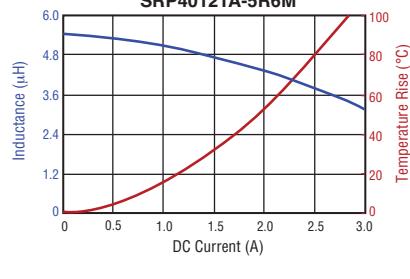
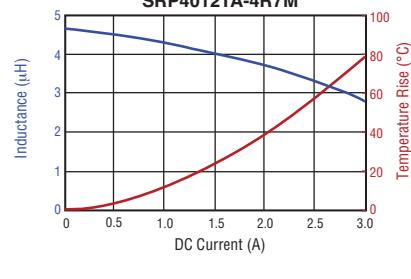
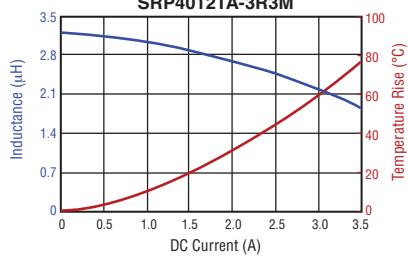
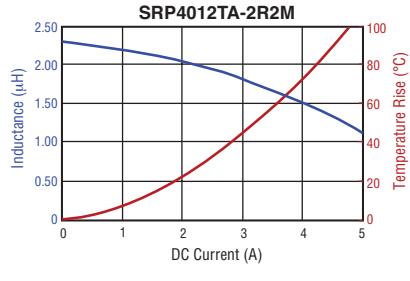
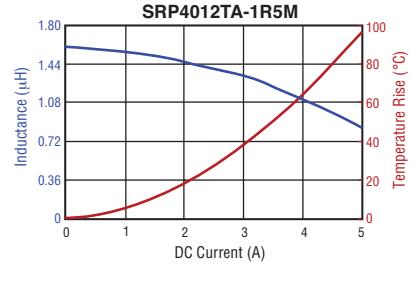
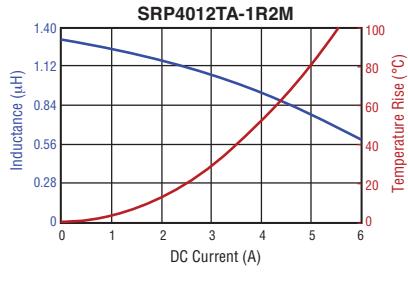
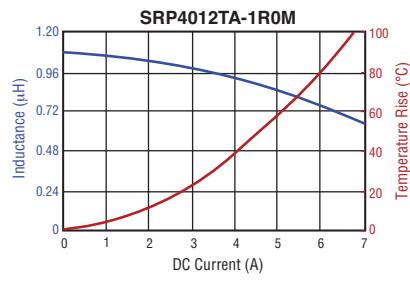
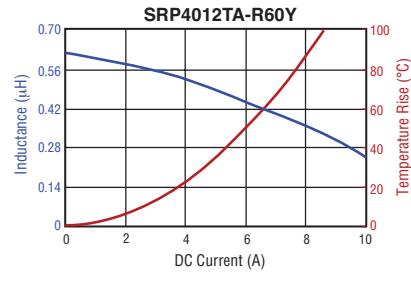
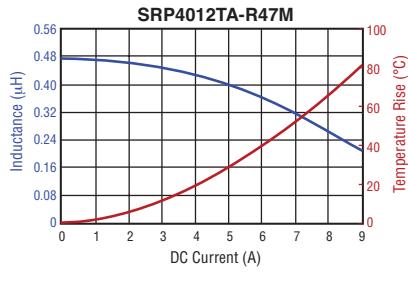
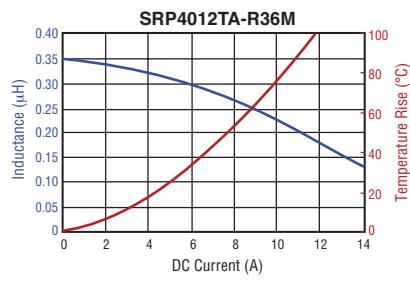
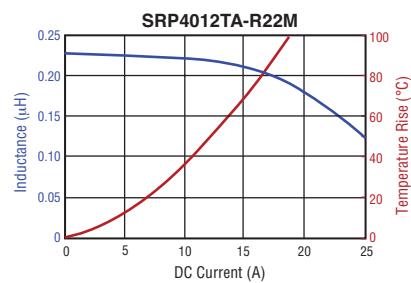
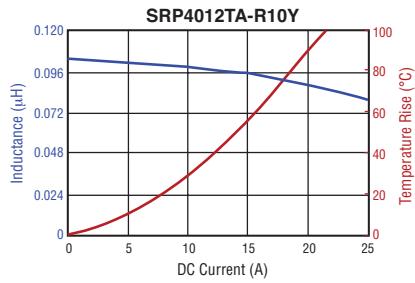
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**BOURNS®**

### L vs. I Charts



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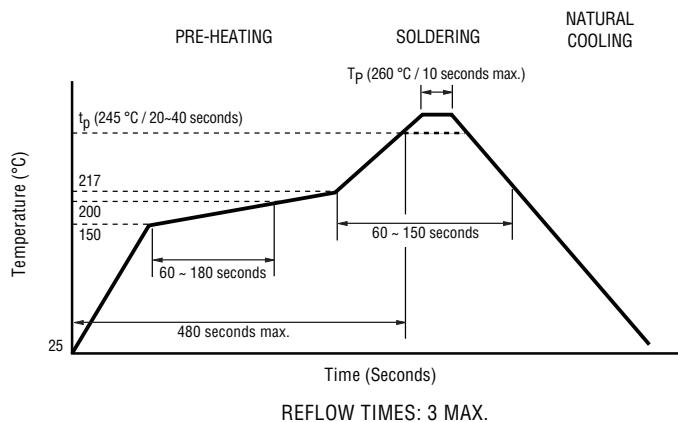
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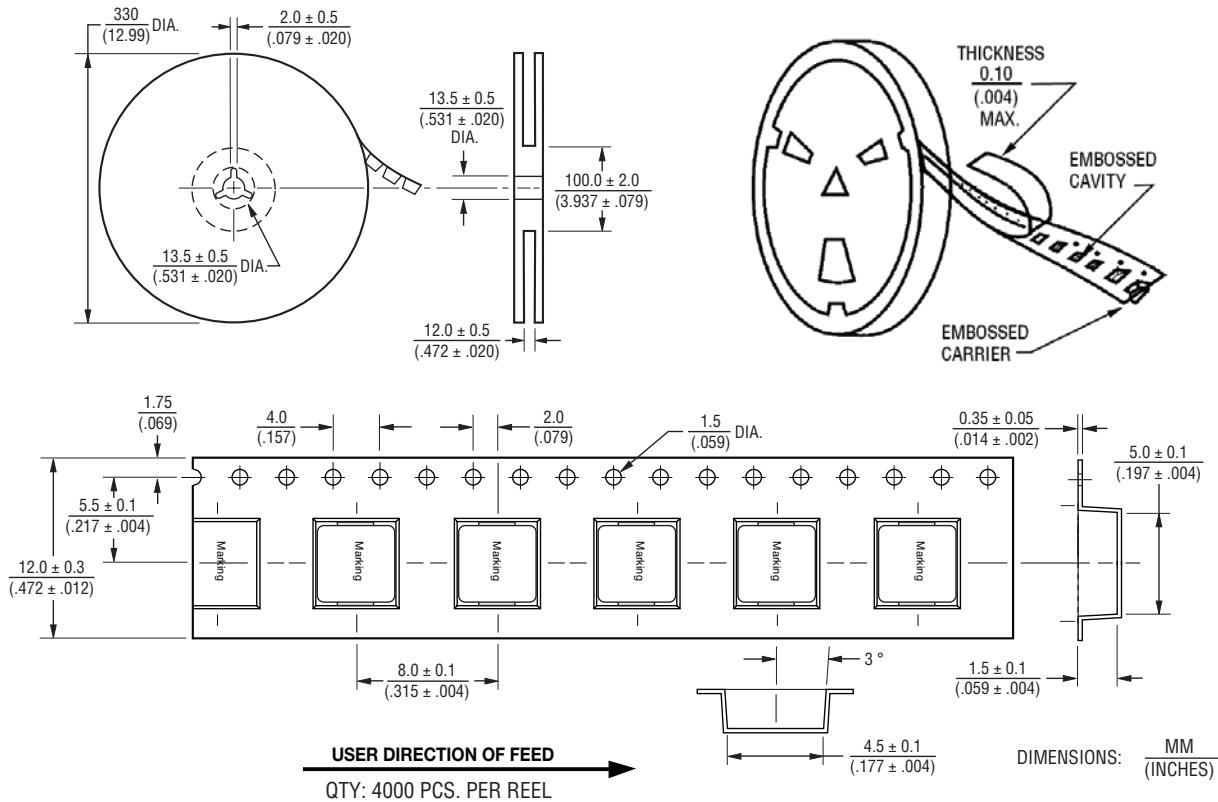
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BOURNS®

### Soldering Profile



### Packaging Specifications



REV. 12/18

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