



**THE DATASHEET OF  
SRP4012TA-1R5M**





### 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

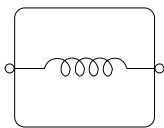
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @ 100 KHz / 1 V	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP4012TA-R10Y	0.10	$\pm$ 30	5	400	4.3	5.5	11.5	25	Lead Frame
SRP4012TA-R22M	0.22	$\pm$ 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

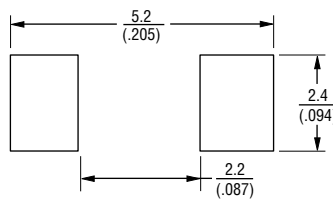
SRP4012TA - 100M

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

### Electrical Schematic



### Recommended Layout



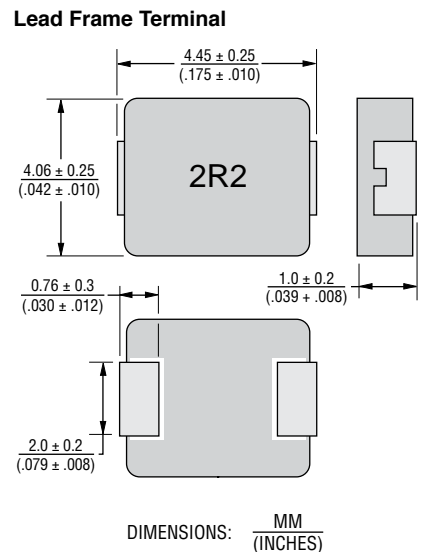
### General Specifications

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

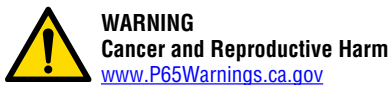
### Product Dimensions



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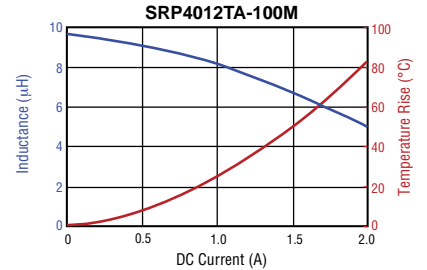
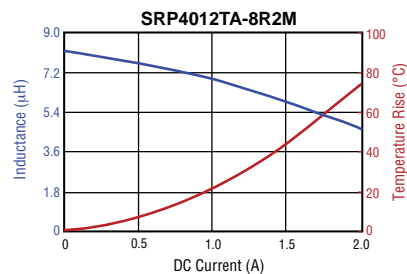
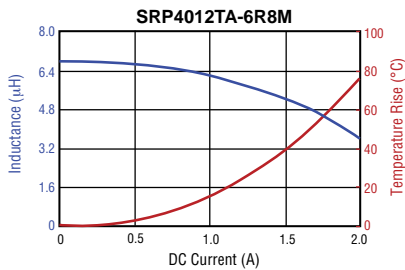
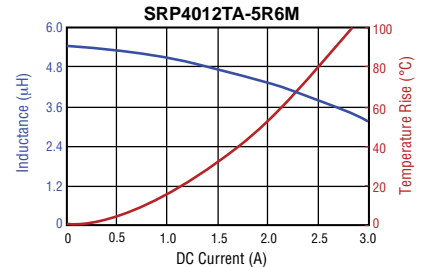
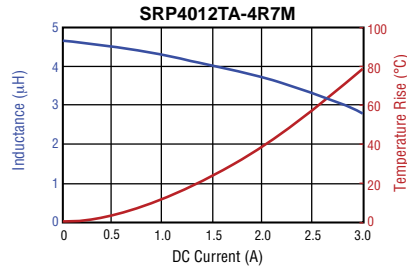
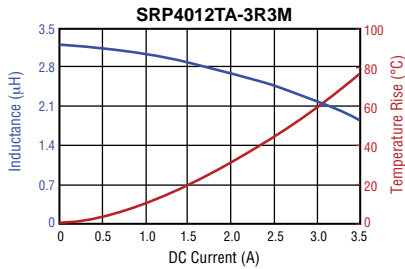
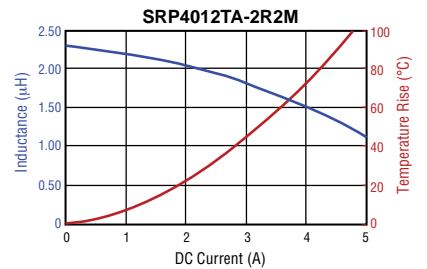
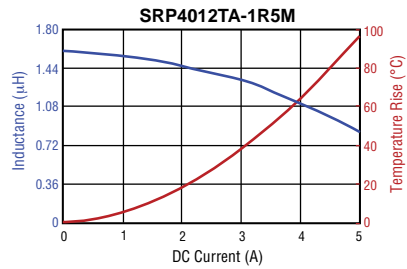
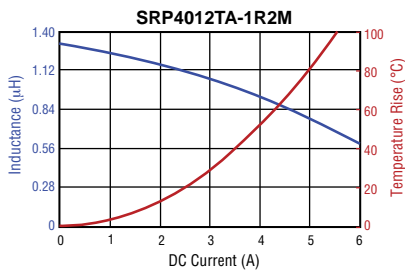
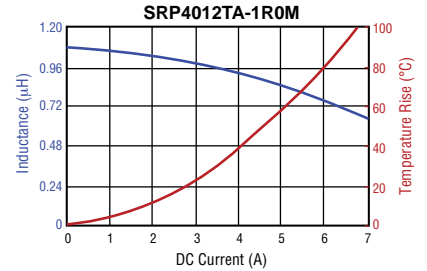
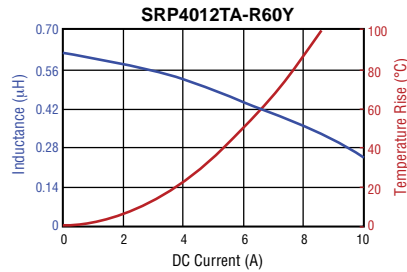
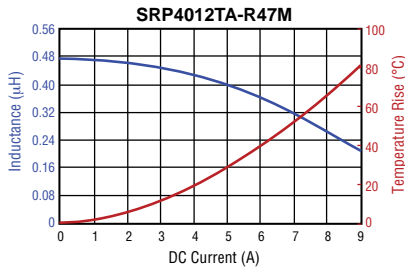
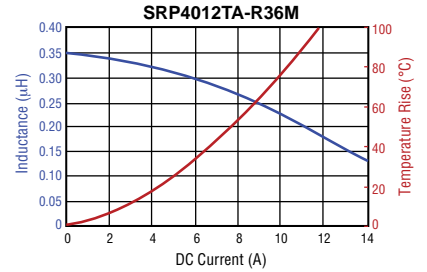
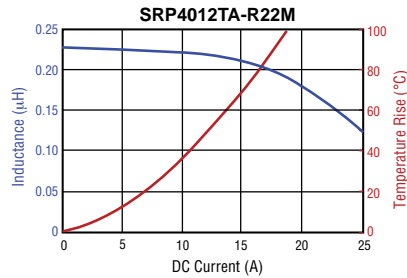
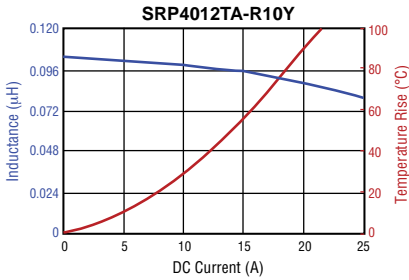
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
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# SRP4012TA Series - Shielded Power Inductors



## L vs. I Charts



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Users should verify actual device performance in their specific applications.

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