



## Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.15 to 10  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

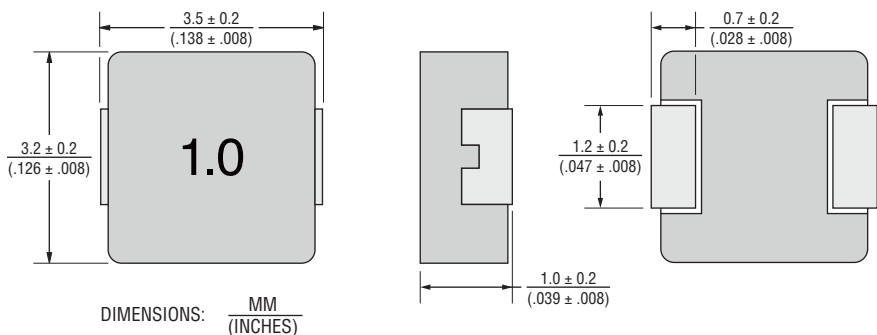
- Selected automotive applications:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

# SRP3012TA Series – Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I rms (A) Typ.	I sat (A) Typ.
	L ( $\mu$ H)	Tol. %					
SRP3012TA-R15Y	0.15	$\pm 30$ %	195	9.6	11	10	14
SRP3012TA-R22M	0.22	$\pm 20$ %	170	14	17	6.5	10
SRP3012TA-R33M	0.33	$\pm 20$ %	150	16	20	6.2	9.2
SRP3012TA-R36M	0.36	$\pm 20$ %	125	18.5	23	6.0	8.5
SRP3012TA-R47M	0.47	$\pm 20$ %	107	25	30	5.0	7.2
SRP3012TA-R56M	0.56	$\pm 20$ %	90	31	36	4.5	6.6
SRP3012TA-R68M	0.68	$\pm 20$ %	85	34	40	4.0	6.1
SRP3012TA-R82M	0.82	$\pm 20$ %	71	41	48	3.5	5.8
SRP3012TA-1R0M	1.0	$\pm 20$ %	65	50	60	3.3	5.5
SRP3012TA-1R5M	1.5	$\pm 20$ %	55	71	85	3.0	4.0
SRP3012TA-2R2M	2.2	$\pm 20$ %	45	98	115	2.7	3.4
SRP3012TA-3R3M	3.3	$\pm 20$ %	40	191	210	2.0	3.1
SRP3012TA-4R7M	4.7	$\pm 20$ %	35	266	293	1.6	2.8
SRP3012TA-5R6M	5.6	$\pm 20$ %	32	310	360	1.5	2.2
SRP3012TA-6R8M	6.8	$\pm 20$ %	29	360	400	1.4	2.0
SRP3012TA-8R2M	8.2	$\pm 20$ %	26	420	463	1.2	1.7
SRP3012TA-100M	10	$\pm 20$ %	23	498	550	1.0	1.4

### Product Dimensions



### General Specifications

Operating Temperature  
 .....-40 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 .....-40 °C to +150 °C  
 Rated Current  
 ..... Inductance drops 30 % at Isat  
 Temperature Rise ... 40 °C at rated Irms!  
 MSL ..... 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.

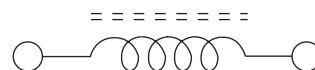
### Materials

Core..... Metal alloy powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ni  
 Packaging..... 4000 pcs. per 13-inch reel

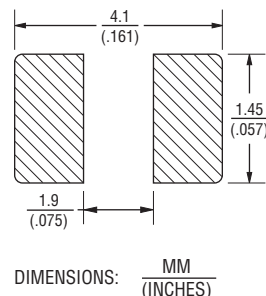
### How to Order

SRP3012TA - 1R0M  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

### Schematic



### Recommended Layout



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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.

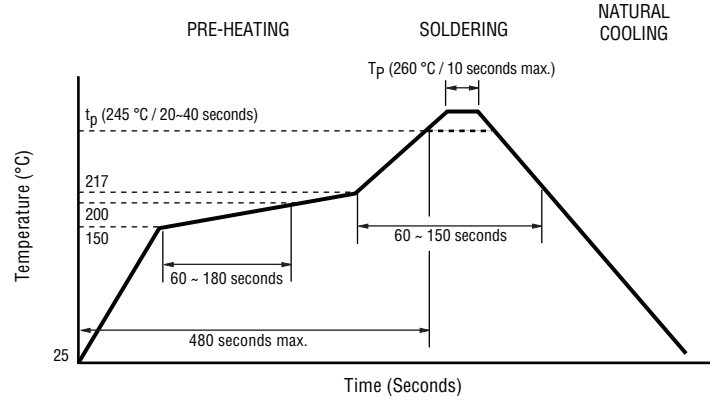
Users should verify actual device performance in their specific applications.

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# SRP3012TA Series – Shielded Power Inductors

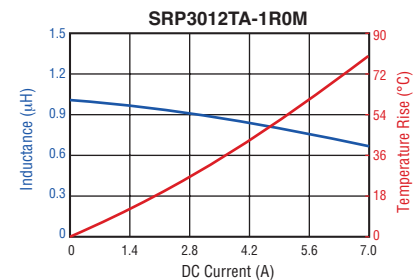
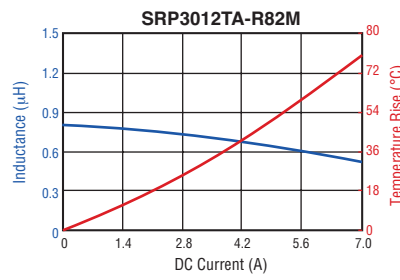
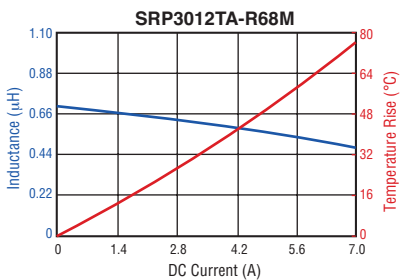
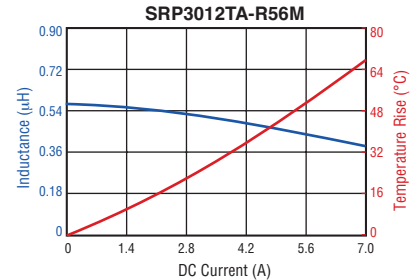
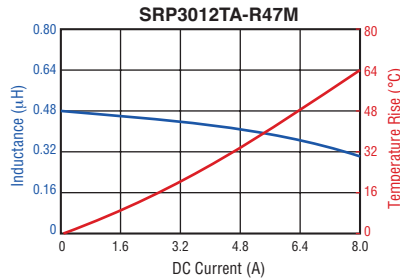
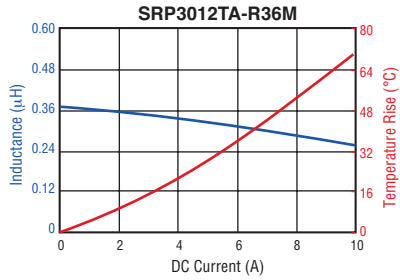
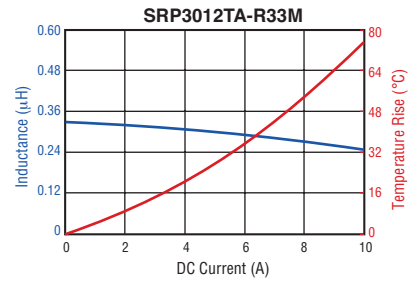
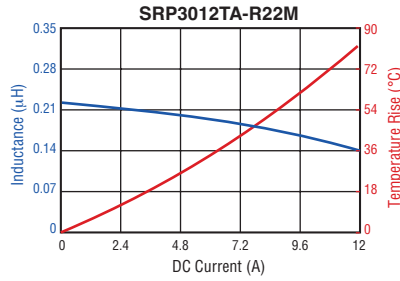
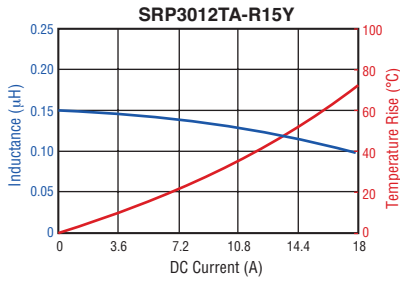


## Soldering Profile



REFLOW TIMES: 3 MAX.

## L vs. I Charts

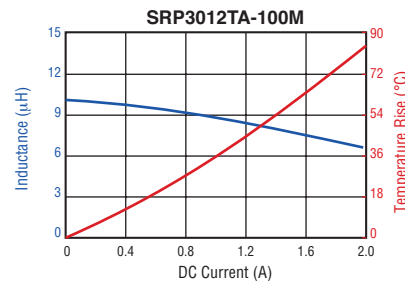
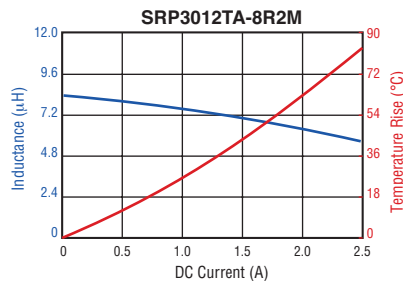
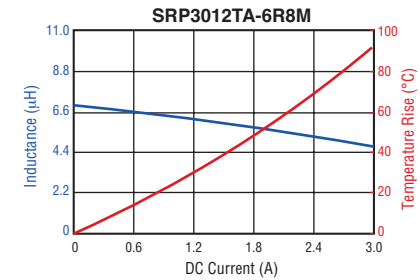
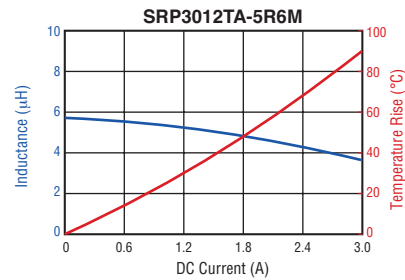
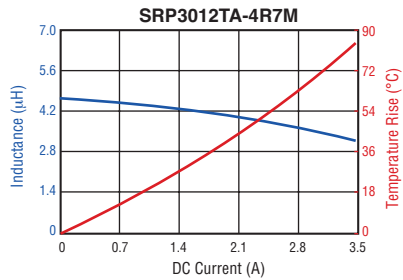
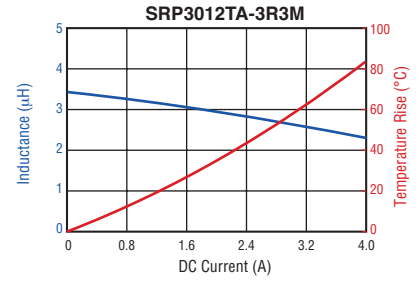
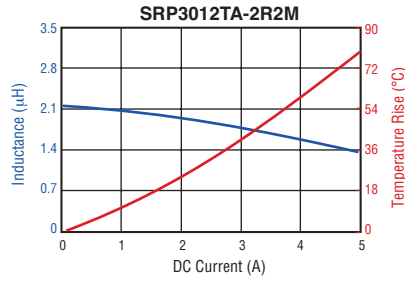
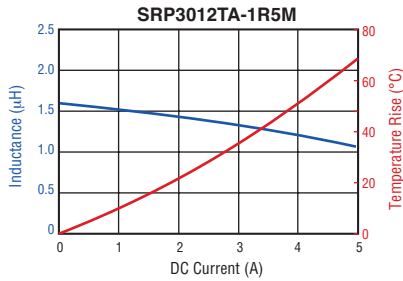


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# SRP3012TA Series – Shielded Power Inductors



## L vs. I Charts (Continued)





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