

## Features

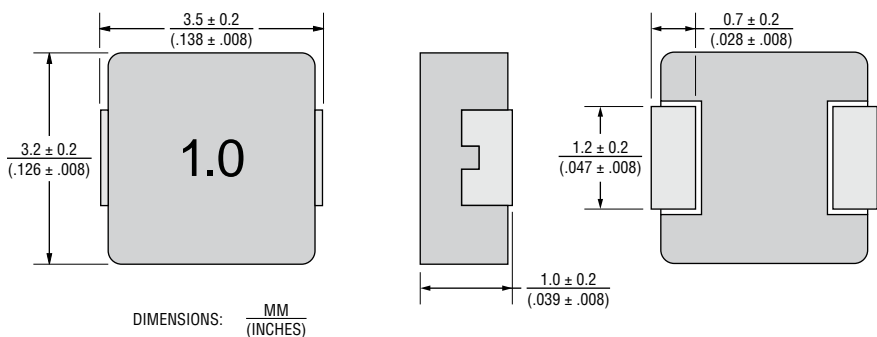
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.15 to 10  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## 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	$\pm 20$ %	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



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



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

\* 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.

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### Additional Information

Click these links for more information:



### General Specifications

#### Operating Temperature

..... -55 °C to +150 °C  
(Temperature rise included)

#### Storage Temperature (Component)

..... -55 °C to +150 °C

#### Rated Current

..... Inductance drops 30 % at Isat

Temperature Rise .... 40 °C at rated Irms<sup>1</sup>

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

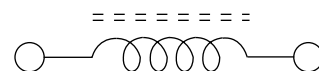
### How to Order

**SRP3012TA - 1R0M**

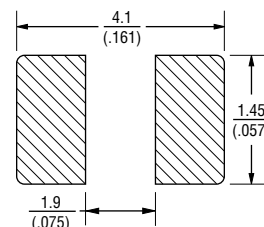
Model .....

Value Code (see table) .....

### Schematic



### Recommended Layout

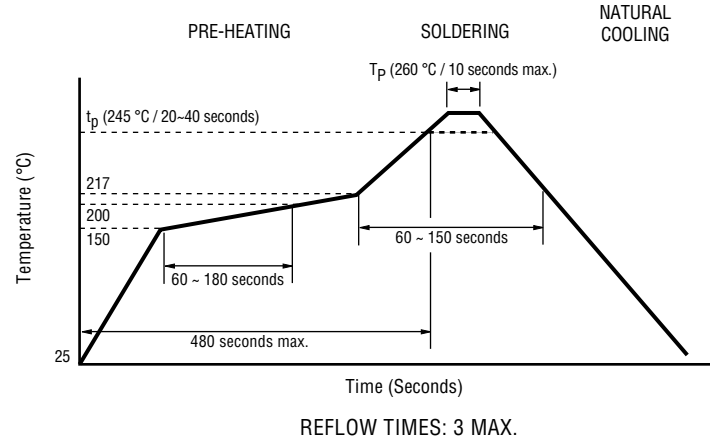


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

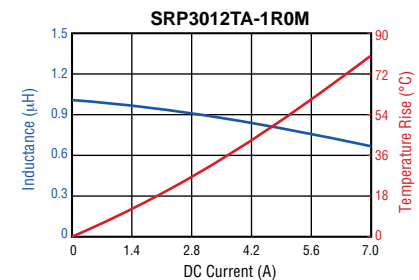
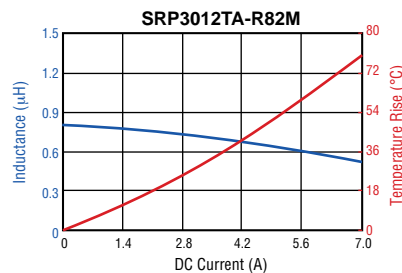
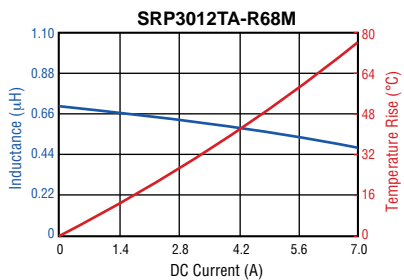
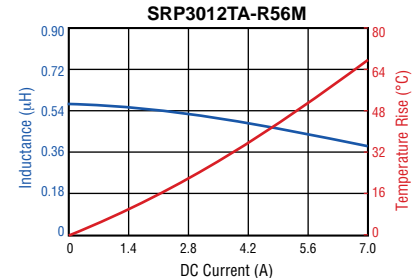
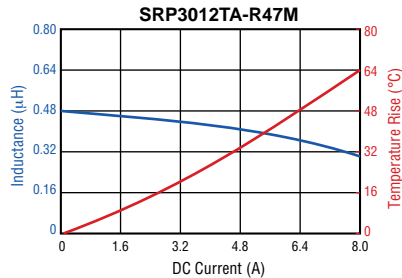
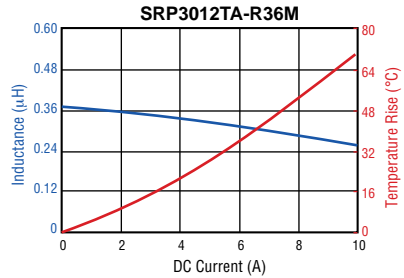
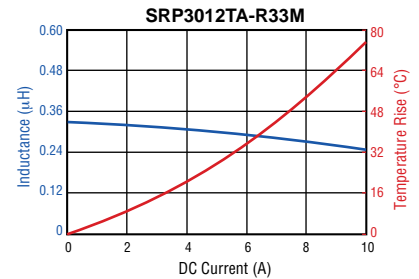
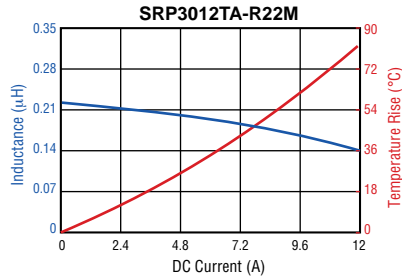
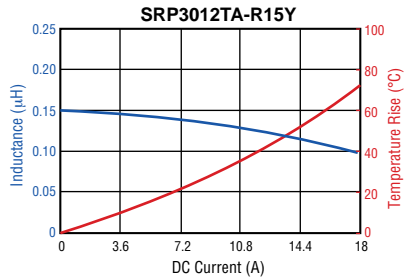
# SRP3012TA Series - Shielded Power Inductors

**BOURNS®**

## Soldering Profile



## L vs. I Charts



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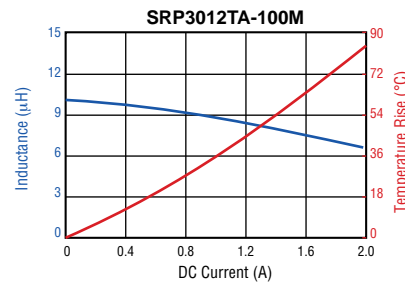
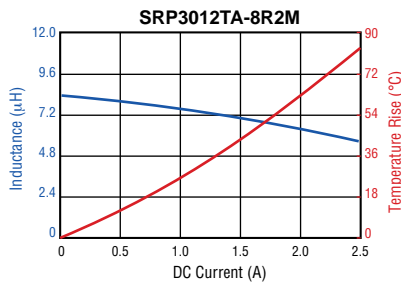
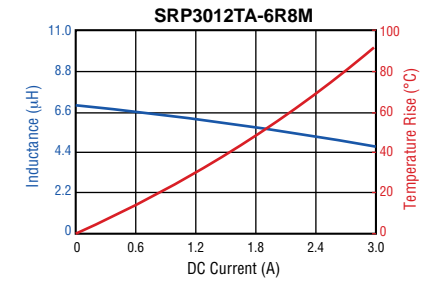
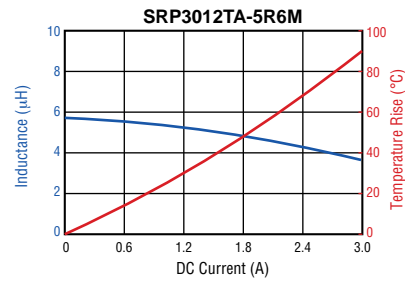
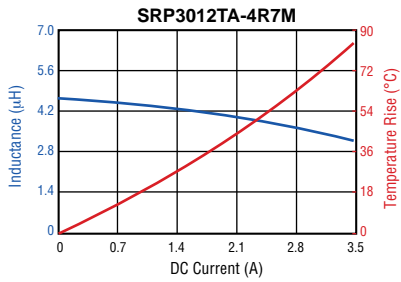
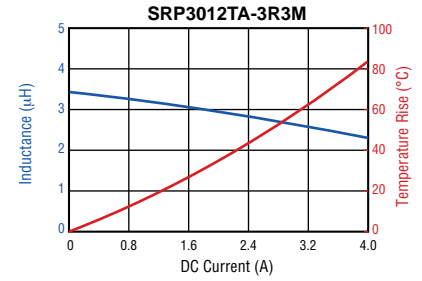
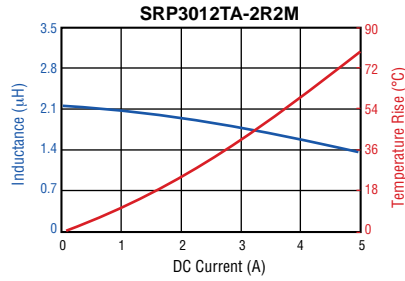
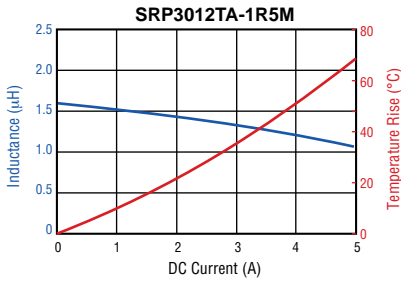
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### L vs. I Charts (Continued)



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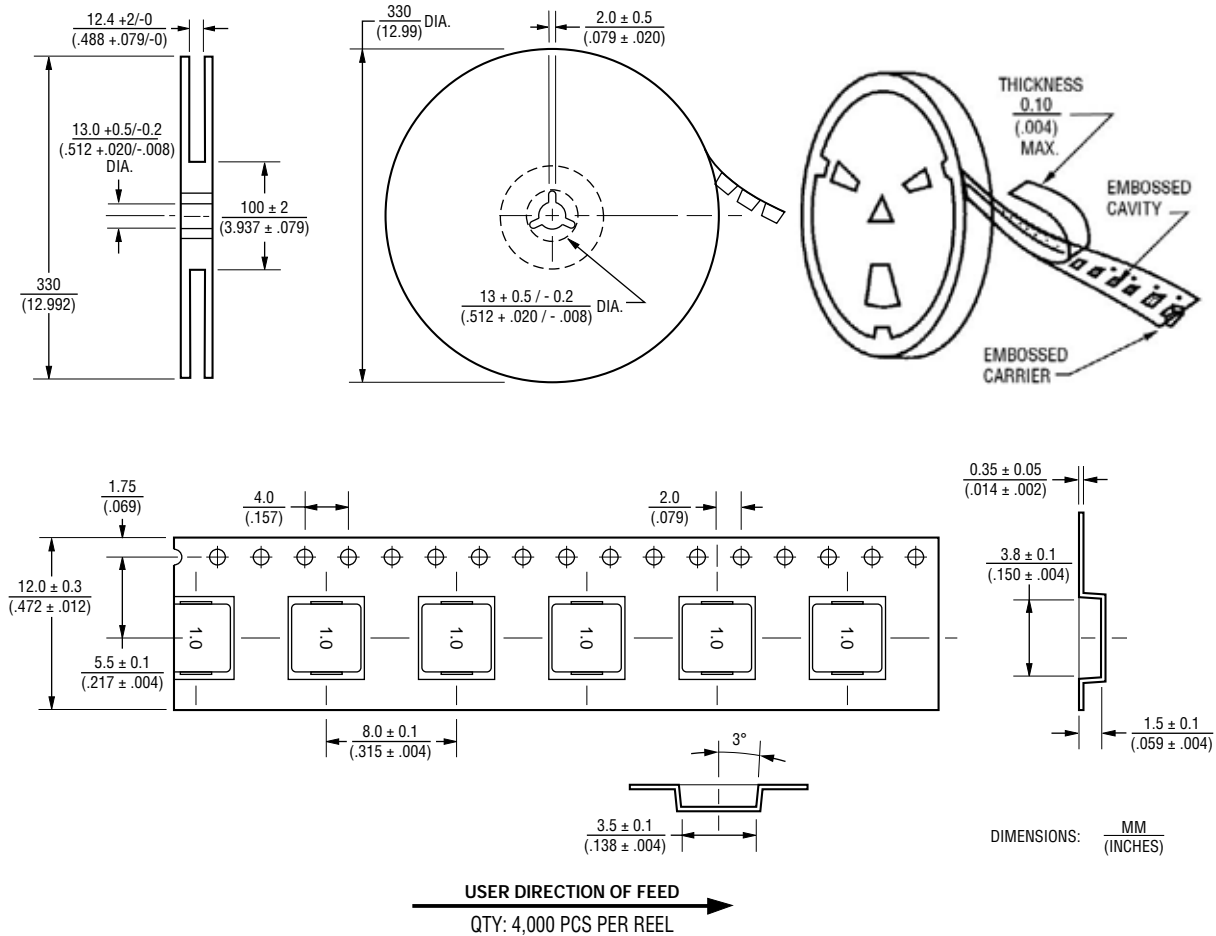
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## SRP3012TA Series - Shielded Power Inductors

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### Packaging Specifications



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