



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.33 to 68  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP7050TA 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. (%)							
SRP7050TA-R33M	0.33	$\pm 20$	10	100	2.5	3	25	32	Lead Frame
SRP7050TA-R40M	0.40	$\pm 20$	10	100	3.1	3.7	23	31	
SRP7050TA-R47M	0.47	$\pm 20$	10	95	3.5	3.9	22	30	
SRP7050TA-R56M	0.56	$\pm 20$	10	80	3.6	4.2	20	27	
SRP7050TA-R60M	0.60	$\pm 20$	10	80	3.8	4.3	19	25	
SRP7050TA-R68M	0.68	$\pm 20$	10	75	4	4.5	18	24	
SRP7050TA-R82M	0.82	$\pm 20$	10	70	4.6	4.9	16.5	22	
SRP7050TA-1R0M	1.0	$\pm 20$	10	50	6.1	6.5	15	20	
SRP7050TA-1R2M	1.2	$\pm 20$	15	45	6.7	7.5	14	18	
SRP7050TA-1R5M	1.5	$\pm 20$	15	43	8.6	9	12	16.5	
SRP7050TA-1R8M	1.8	$\pm 20$	15	38	9.5	11	12	15	
SRP7050TA-2R2M	2.2	$\pm 20$	15	30	11.2	12	10	14	
SRP7050TA-3R3M	3.3	$\pm 20$	15	26	19	20.9	8	12	
SRP7050TA-4R7M	4.7	$\pm 20$	15	22	28	30.8	6.5	10	
SRP7050TA-5R6M	5.6	$\pm 20$	15	20	43.5	49	6	9	
SRP7050TA-6R8M	6.8	$\pm 20$	15	18	46	51.5	5.5	8.5	
SRP7050TA-8R2M	8.2	$\pm 20$	15	16	56	63	5	8	
SRP7050TA-100M	10	$\pm 20$	15	15	60	69	4	7.5	
SRP7050TA-150M	15	$\pm 20$	15	12	81	92	3.5	6	
SRP7050TA-220M	22	$\pm 20$	15	9	140	170	2.5	5.5	
SRP7050TA-330M	33	$\pm 20$	15	8	173	200	2	3.5	
SRP7050TA-470M	47	$\pm 20$	15	8	290	330	1.9	2.7	
SRP7050TA-560M	56	$\pm 20$	15	7	342	396	1.6	2.1	
SRP7050TA-680M	68	$\pm 20$	15	6	386	445	1.2	2	

### General Specifications

Operating Temperature .....-40 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature .....-40 °C to +125 °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

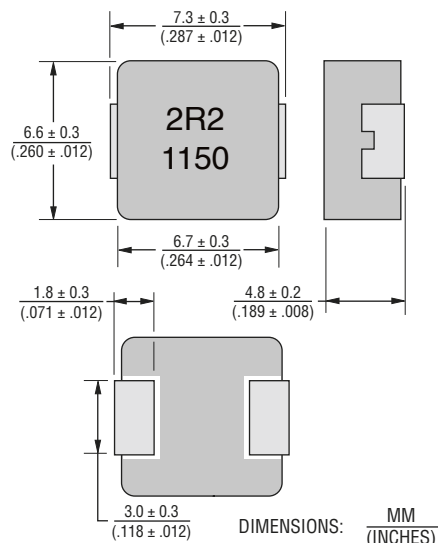
<sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

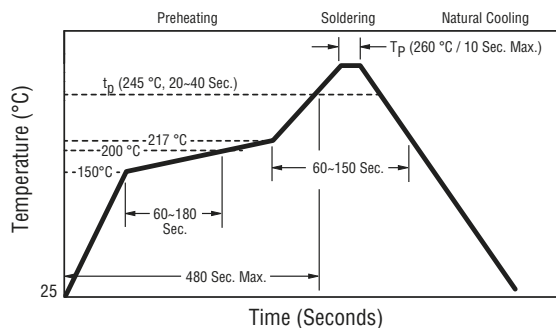
Core..... Carbonyl powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging..... 800 pcs. per 13-inch reel

### Product Dimensions

#### Lead Frame Terminal

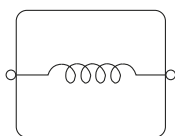


### Soldering Profile



Reflow Times:  
3 Times Max.

### Schematic



### How to Order

SRP7050TA - 100 M

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



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

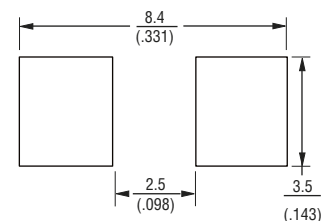
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\*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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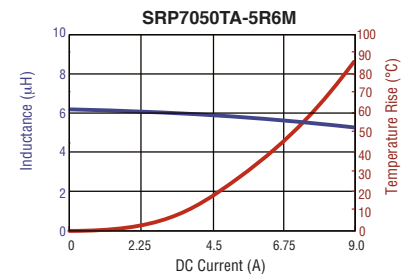
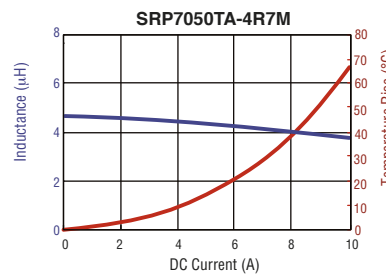
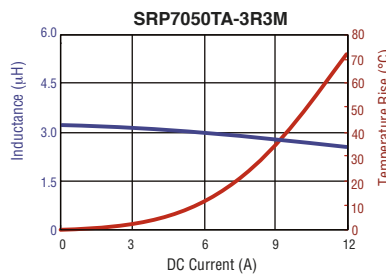
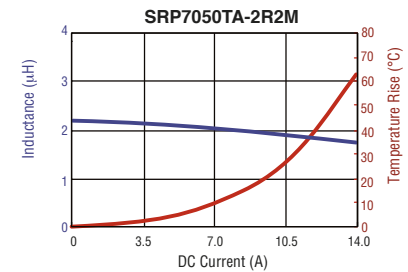
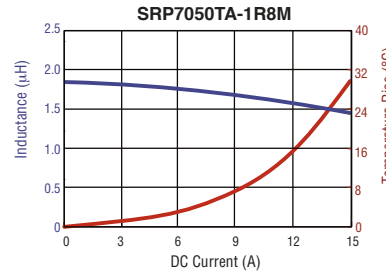
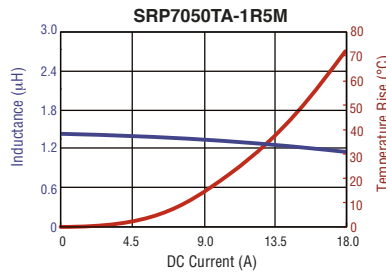
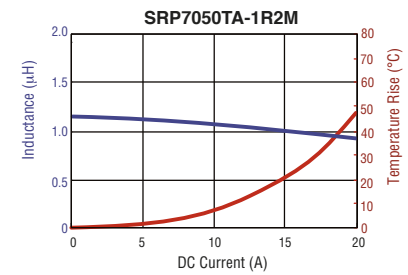
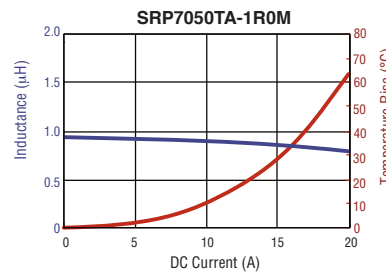
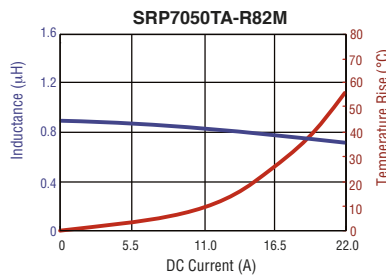
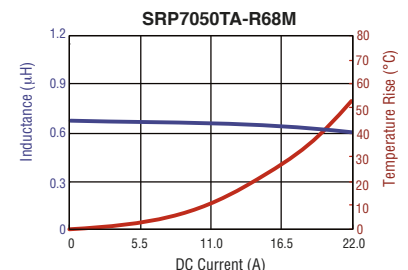
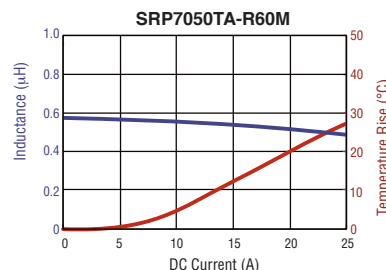
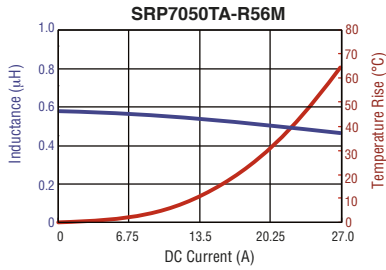
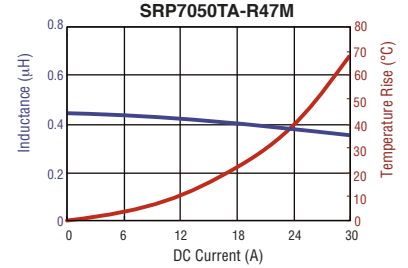
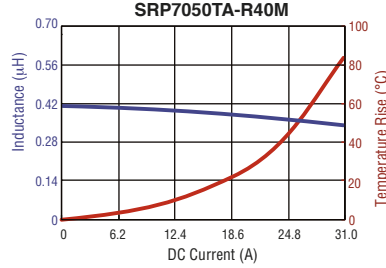
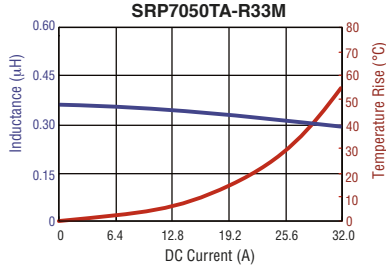
### Recommended Layout



# SRP7050TA Series - Shielded Power Inductor

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## L vs. I Charts

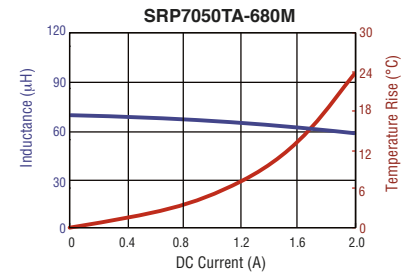
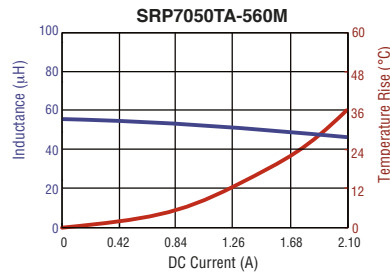
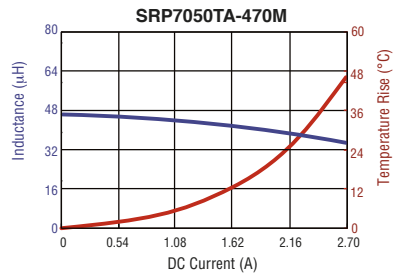
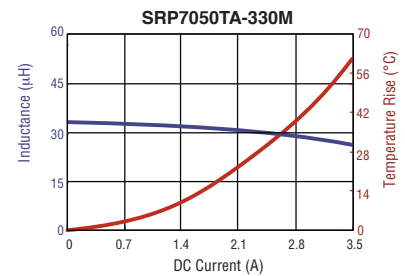
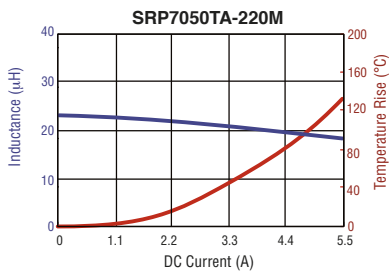
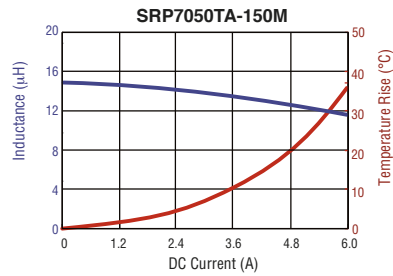
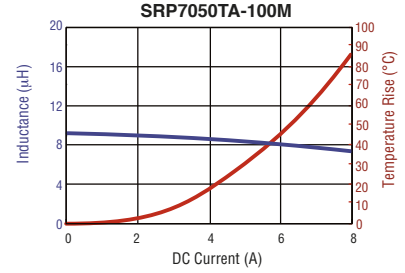
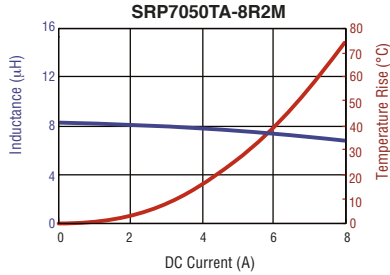
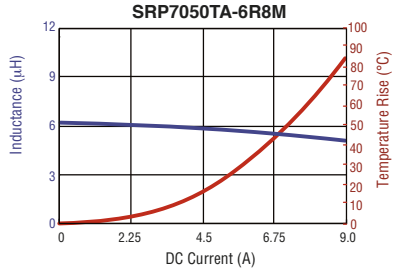


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# SRP7050TA Series - Shielded Power Inductors

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## L vs. I Charts (Continued)



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