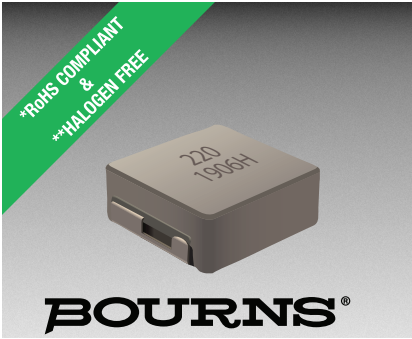




**THE DATASHEET OF  
SRP1770C-R47M**





### Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range: 0.47 to 47  $\mu$ H
- RoHS compliant\* and halogen free\*\*



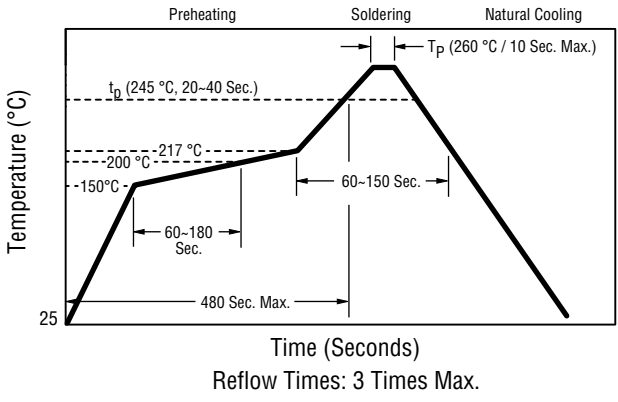
This series is currently available but not recommended for new designs.

## SRP1770C 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) Typ.	I <sub>sat</sub> (A) Typ.	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP1770C-R47M	0.47	$\pm 20$	10	28	0.75	0.83	60.0	115	Lead Frame
SRP1770C-1R0M	1.0	$\pm 20$	20	24	1.30	1.50	48.0	68	
SRP1770C-1R5M	1.5	$\pm 20$	20	22	1.80	2.10	42.0	55	
SRP1770C-2R2M	2.2	$\pm 20$	20	21	2.50	2.80	40.0	45	
SRP1770C-3R3M	3.3	$\pm 20$	20	19	3.50	3.90	28.0	40	
SRP1770C-4R7M	4.7	$\pm 20$	20	17	4.80	5.50	26.0	37	
SRP1770C-5R6M	5.6	$\pm 20$	20	15	5.90	6.80	24.0	35	
SRP1770C-6R8M	6.8	$\pm 20$	20	14	8.40	9.20	22.0	30	
SRP1770C-8R2M	8.2	$\pm 20$	20	13	9.60	10.80	18.0	28	
SRP1770C-100M	10.0	$\pm 20$	20	12	11.60	13.00	17.0	25	
SRP1770C-150M	15.0	$\pm 20$	20	10	16.50	19.50	14.0	23	
SRP1770C-220M	22.0	$\pm 20$	20	8	24.00	27.60	12.0	19	
SRP1770C-330M	33.0	$\pm 20$	20	6	36.00	42.00	10.7	15	
SRP1770C-470M	47.0	$\pm 20$	20	5	46.00	53.00	8.7	13	

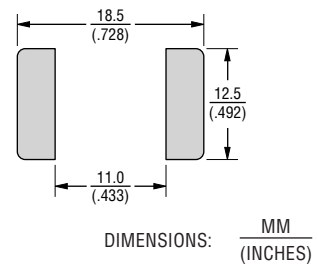
### Soldering Profile



### How to Order

SRP1770C - 220M  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

### Recommended Layout



### General Specifications

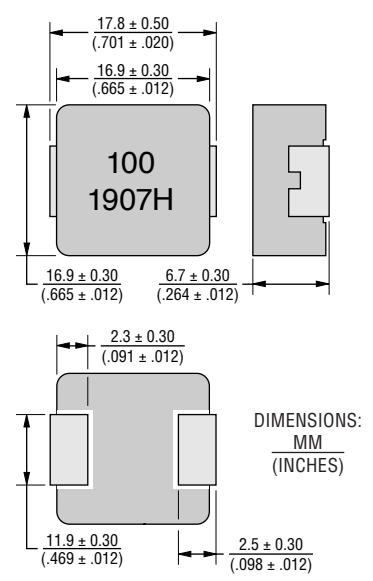
Operating Temperature .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component) .....-40 °C to +125 °C  
 Rated Current ..... Inductance drops 30 % at I<sub>sat</sub>  
 Temperature Rise .....40 °C at rated I<sub>rms</sub>  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (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.

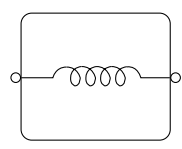
### Materials

Core ..... Metal alloy powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ni  
 Packaging ..... 200 pcs. per 13-inch reel

### Product Dimensions



### Schematic



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

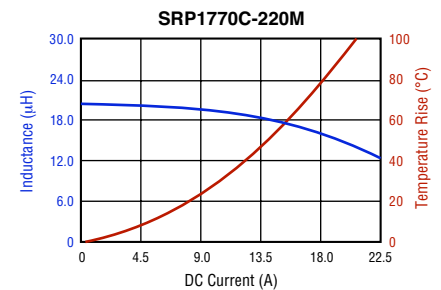
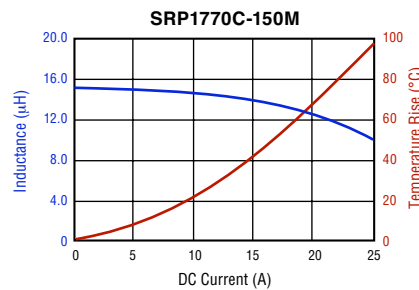
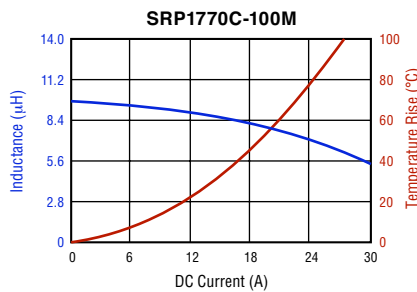
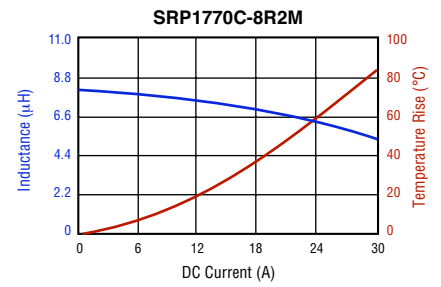
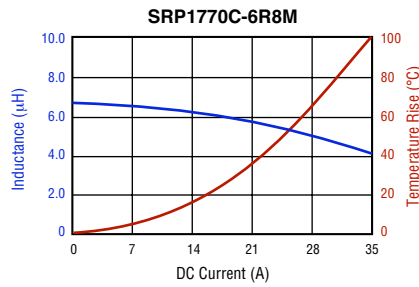
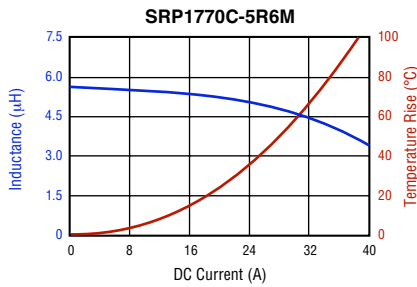
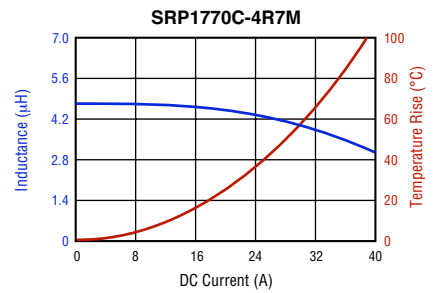
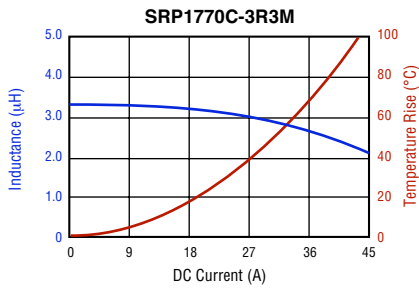
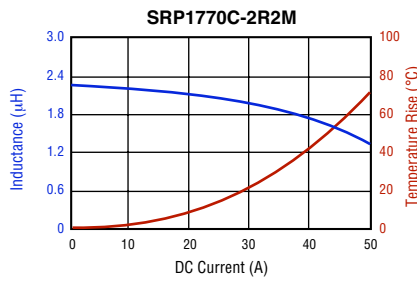
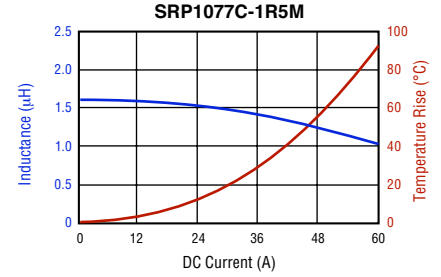
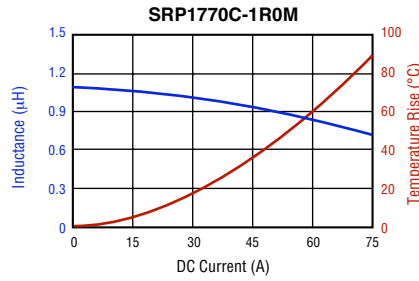
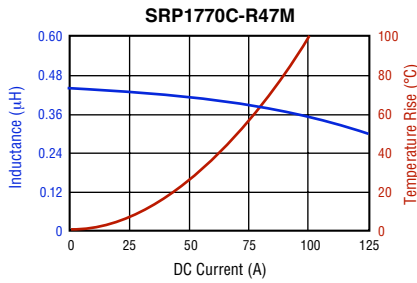
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP1770C Series - Shielded Power Inductors

**BOURNS®**

## L vs. I Charts



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