



Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 1 to 100 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

- Automotive systems:
 - Driver assistant
 - Information
 - Entertainment
 - Lighting
- DC/DC converters
- Power supplies

SRP1770TA 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 Ω) Typ.	DCR (m Ω) Max.	I _{rms} (A)	Isat1 (A)	Isat2 (A)	Terminal Type
	L (μ H)	Tol. (%)								
SRP1770TA-1R0M	1	± 20	20	35	1.6	2	52	60	70	Lead Frame
SRP1770TA-1R5M	1.5	± 20	20	30	2	2.5	47	52	65	
SRP1770TA-2R2M	2.2	± 20	20	22	2.4	2.7	43.5	47	62	
SRP1770TA-3R3M	3.3	± 20	20	17	3.5	3.9	28	45	54	
SRP1770TA-4R7M	4.7	± 20	20	15	4.8	5.5	25	41	50	
SRP1770TA-5R6M	5.6	± 20	20	12	5.8	7.05	21	40	45	
SRP1770TA-6R8M	6.8	± 20	20	11	8.4	9.2	19	32	39	
SRP1770TA-8R2M	8.2	± 20	20	10	9.6	10.8	18	25	31	
SRP1770TA-100M	10	± 20	20	8	11.8	13	16.5	24	29	
SRP1770TA-150M	15	± 20	20	7	17.8	20.5	12.5	23	27	
SRP1770TA-220M	22	± 20	20	5	25.1	26.5	12	18	23	
SRP1770TA-330M	33	± 20	20	4	38	44	10.7	15	20	
SRP1770TA-390M	39	± 20	20	4	40	48	9.2	11	18	
SRP1770TA-470M	47	± 20	20	3	48	55	8.7	9.5	16	
SRP1770TA-560M	56	± 20	20	3	54	62	7.8	9	15	
SRP1770TA-680M	68	± 20	20	2	68	80	7	8	13	
SRP1770TA-101M	100	± 20	20	2	102	118	5.3	6.5	12	

General Specifications

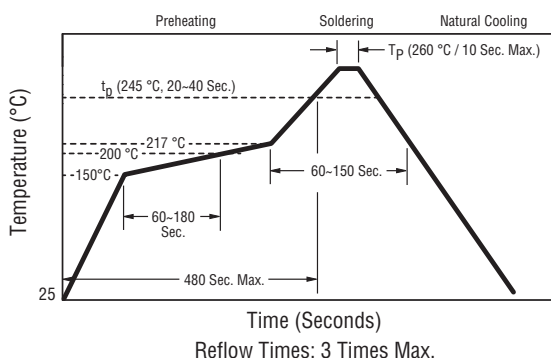
Operating Temperature -40 °C to +150 °C
(Temperature rise included)
Storage Temperature -40 °C to +125 °C
Rated Current Inductance drops 20 % at Isat1, 30 % at Isat2
Temperature Rise 40 °C at rated I_{rms}
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

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

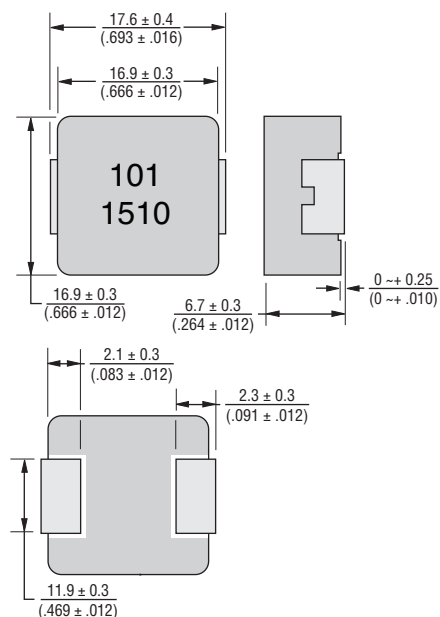
Core Carbonyl powder
Wire Enameled copper
Terminal Finish Sn
Packaging 200 pcs. per 13-inch reel

Soldering Profile



Product Dimensions

Lead Frame Terminal

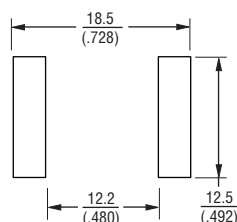


How to Order

SRP1770TA - 220 M

Model _____
Value Code (see table) _____
Tolerance Code _____

Recommended Layout



* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

**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.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

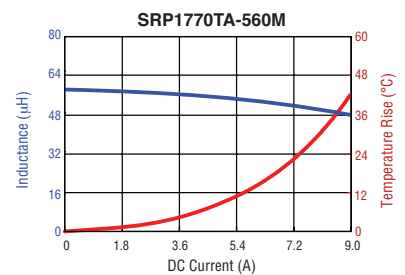
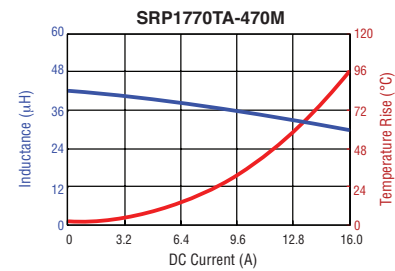
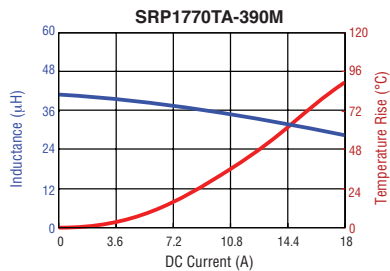
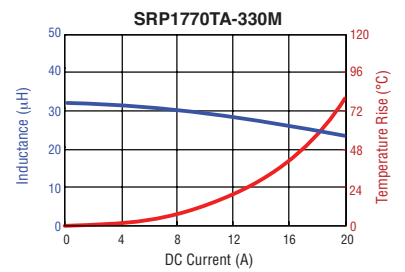
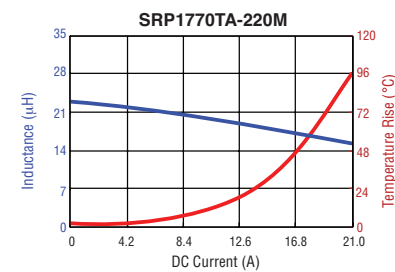
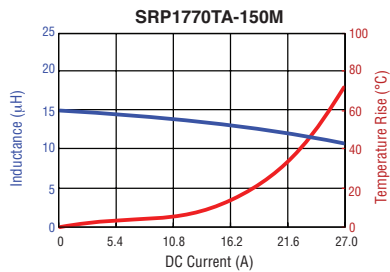
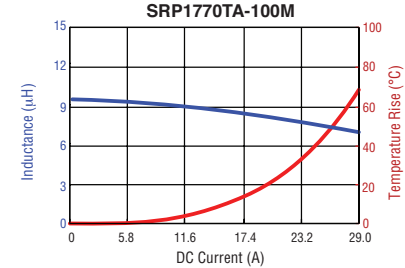
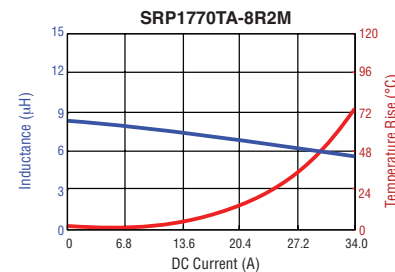
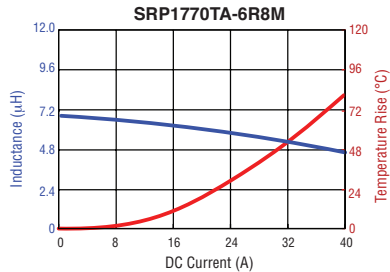
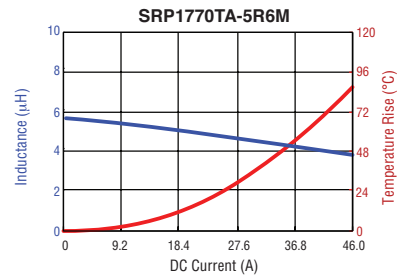
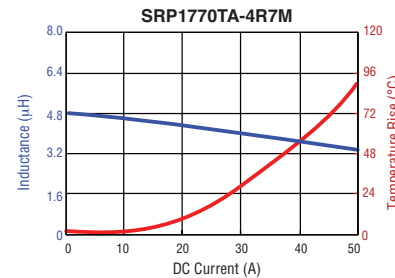
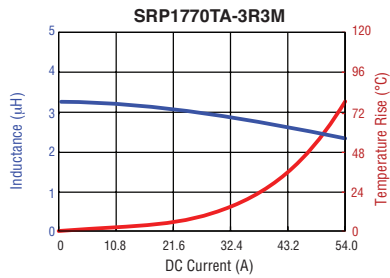
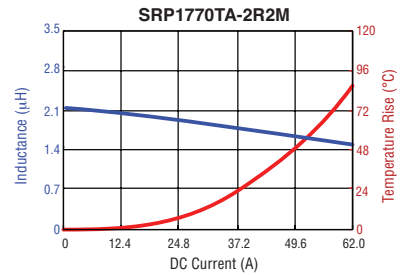
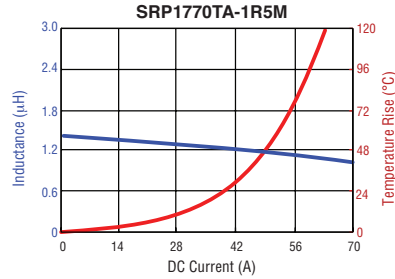
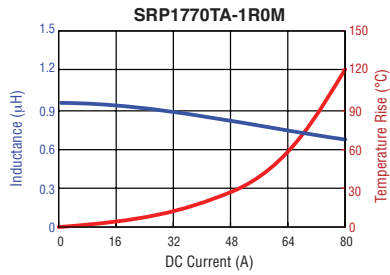
Users should verify actual device performance in their specific applications.

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

SRP1770TA Series - Shielded Power Inductors

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L vs. I Charts



Specifications are subject to change without notice.

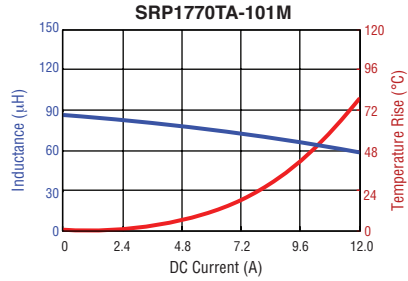
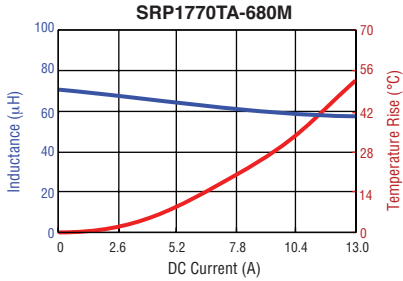
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

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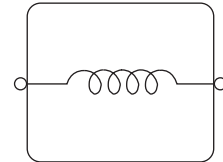
SRP1770TA Series - Shielded Power Inductors

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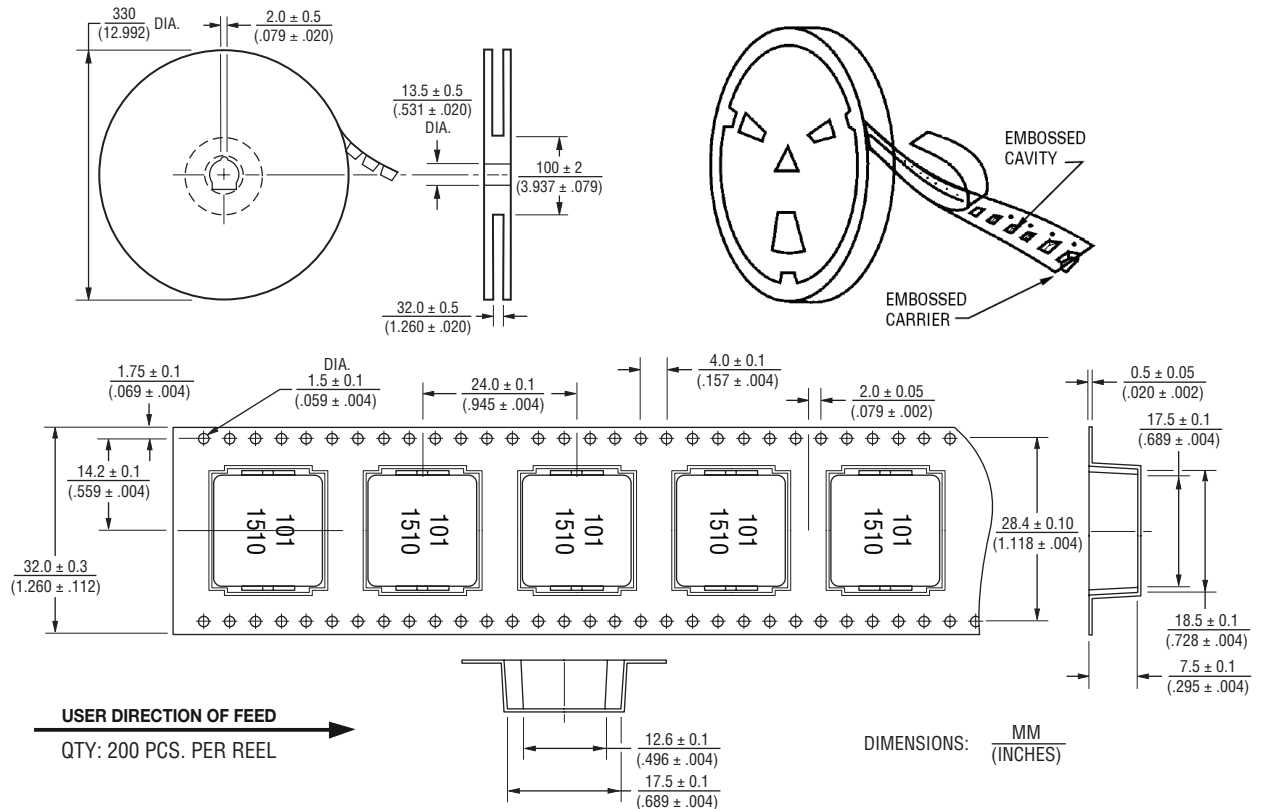
L vs. I Charts (Continued)



Schematic



Packaging Specifications



REV. 05/18

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Mouser Electronics

Authorized Distributor

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Bourns:

[SRP1770TA-100M](#) [SRP1770TA-101M](#) [SRP1770TA-150M](#) [SRP1770TA-220M](#) [SRP1770TA-2R2M](#) [SRP1770TA-330M](#) [SRP1770TA-3R3M](#) [SRP1770TA-470M](#) [SRP1770TA-4R7M](#) [SRP1770TA-5R6M](#) [SRP1770TA-6R8M](#) [SRP1770TA-8R2M](#) [SRP1770TA-1R0M](#) [SRP1770TA-1R5M](#) [SRP1770TA-390M](#) [SRP1770TA-560M](#) [SRP1770TA-680M](#)