



**THE DATASHEET OF
R1517S502B-E2-KE**





Features

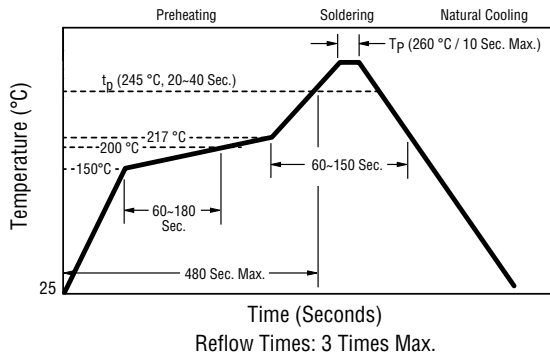
- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.45 to 100 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

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-R45M	0.45	± 20	20	56	0.8	0.96	62	85	125	Lead Frame
SRP1770TA-1R0M	1	± 20	20	35	1.6	2	52	60	70	
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	

Soldering Profile



How to Order

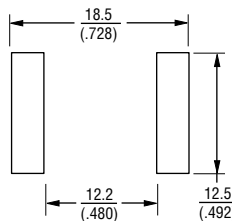
SRP1770TA - 220 M

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



WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Recommended Layout



Additional Information

Click these links for more information:



General Specifications

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

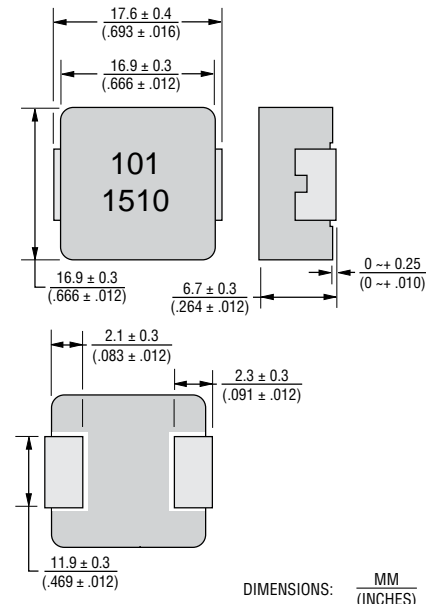
¹ Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

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

Product Dimensions

Lead Frame Terminal

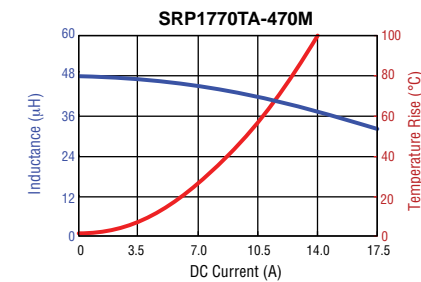
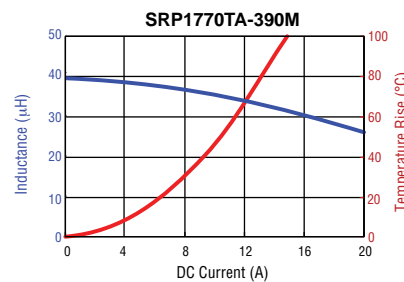
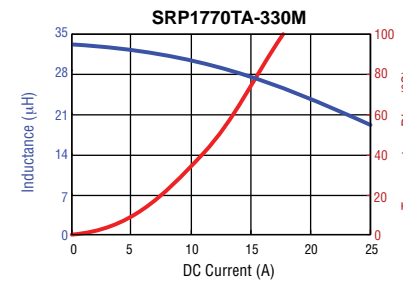
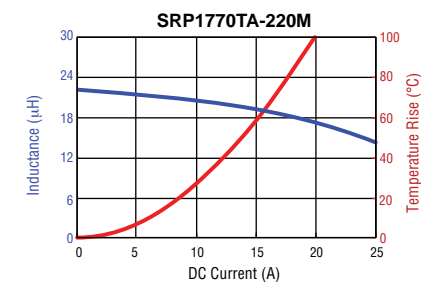
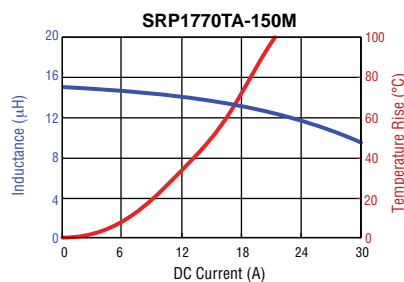
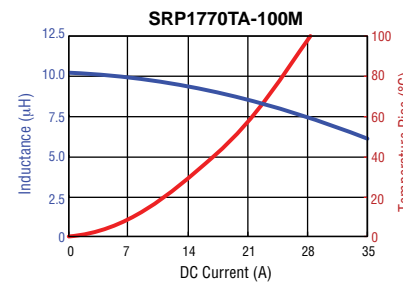
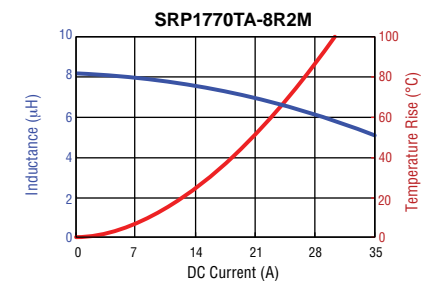
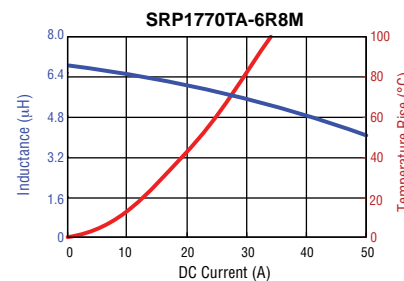
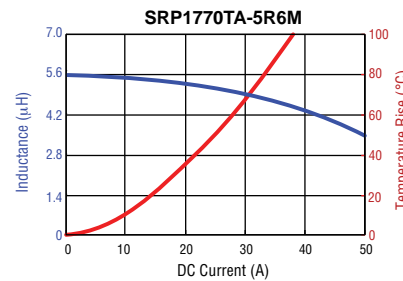
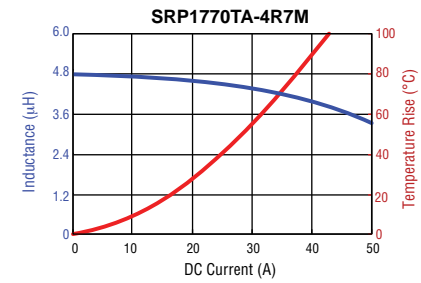
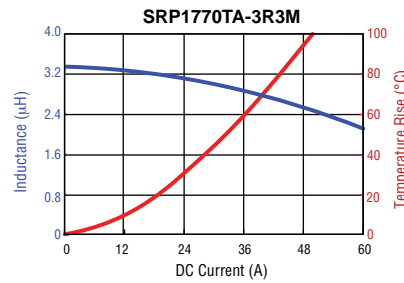
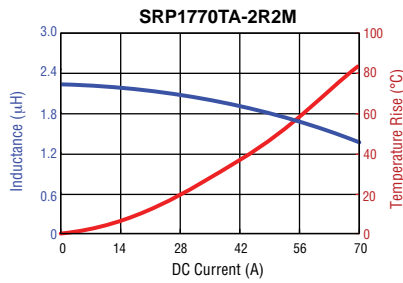
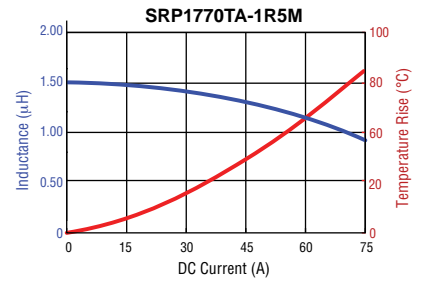
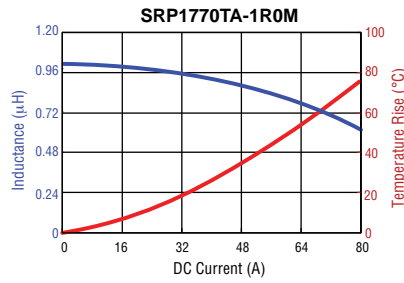
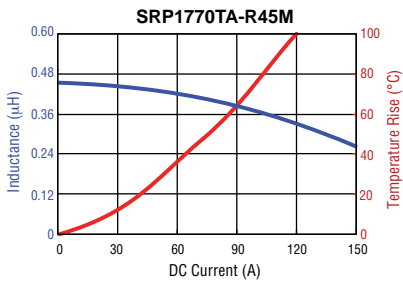


* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 ** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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SRP1770TA Series - Shielded Power Inductors



L vs. I Charts

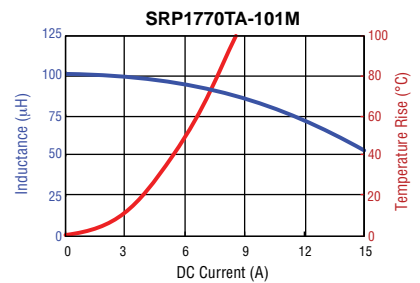
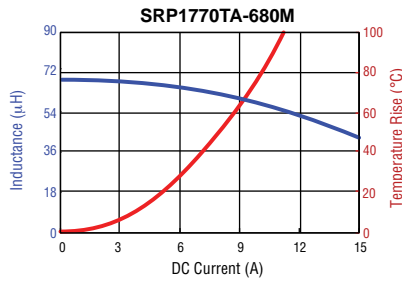
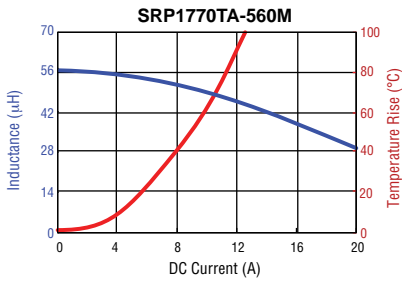


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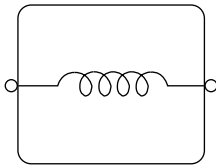
SRP1770TA Series - Shielded Power Inductors



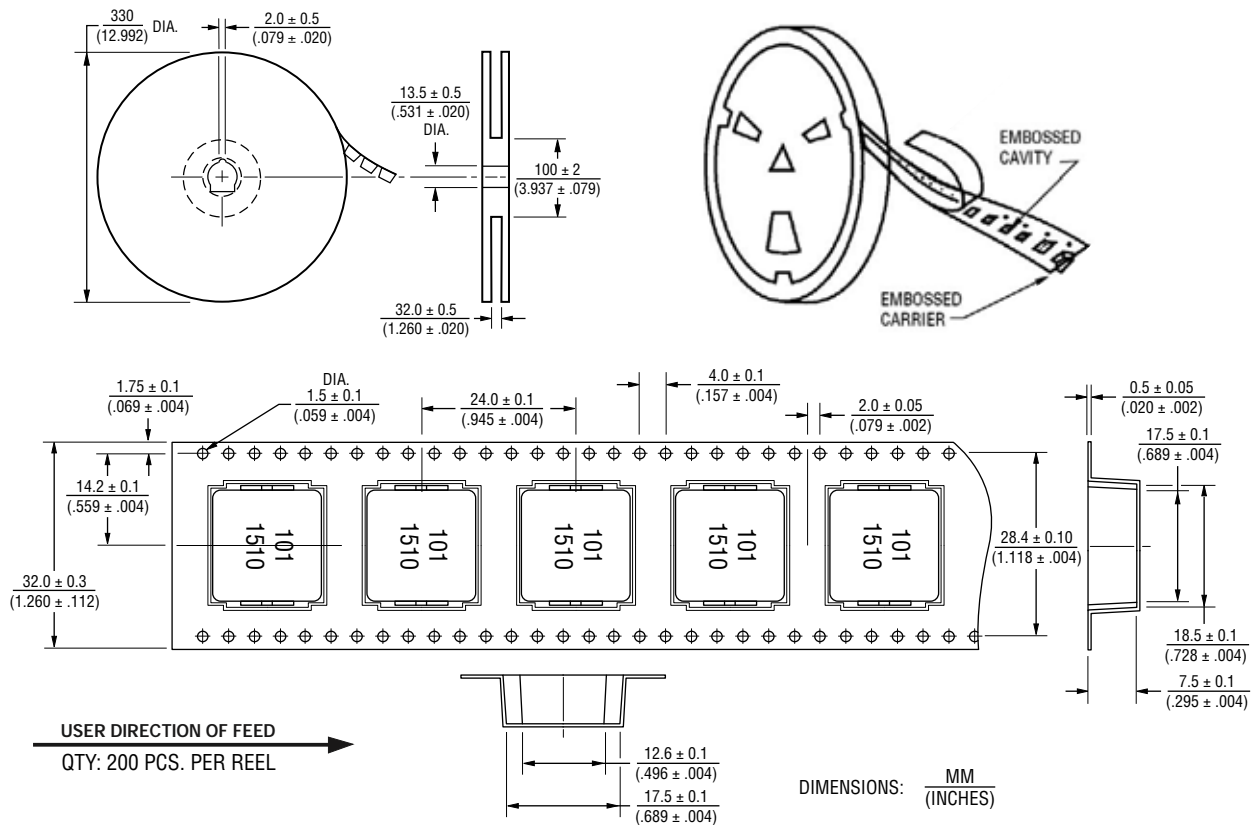
L vs. I Charts (Continued)



Schematic



Packaging Specifications



REV. 06/24

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