



Features

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

Applications

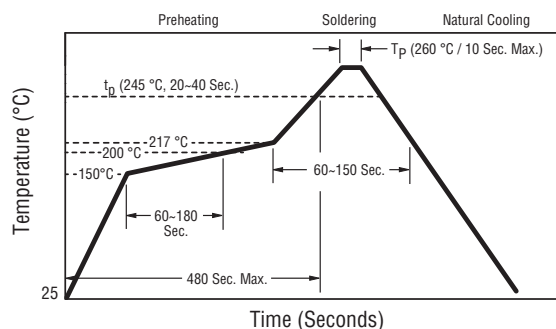
- Automotive systems:
 - Driver assistant
 - Information
 - Entertainment
 - Lighting
- DC/DC converters
- Power supplies

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

Soldering Profile



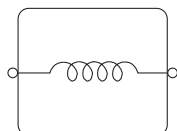
Reflow Times:
3 Times Max.

How to Order

SRP7050TA - 100 M

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

Schematic



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 Isat
Temperature Rise 40 °C at rated Irms
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

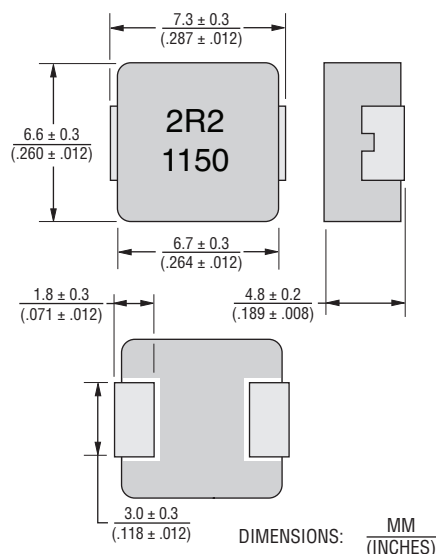
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

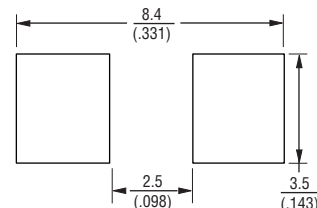
Core Carbonyl powder
Wire Enameled copper
Terminal Finish Sn
Packaging 800 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



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.

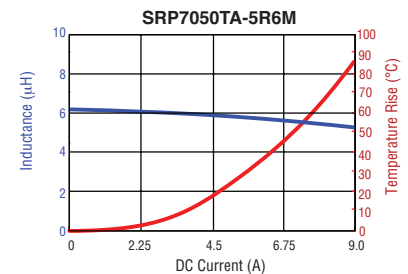
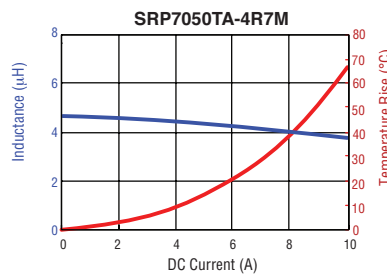
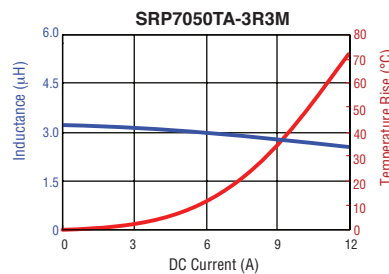
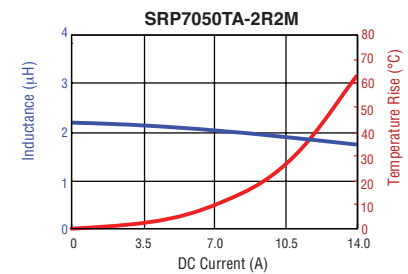
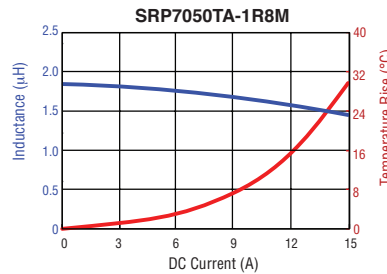
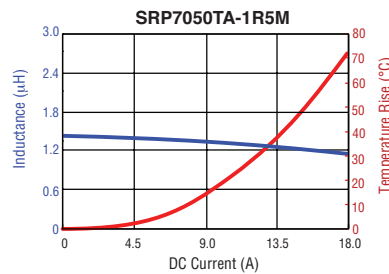
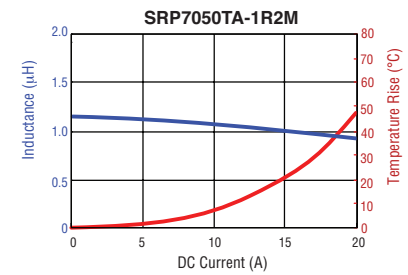
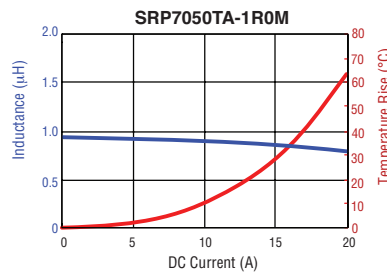
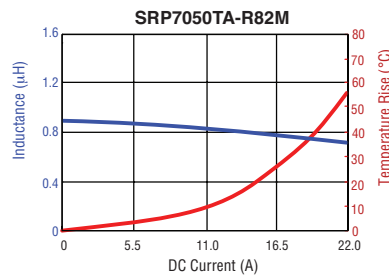
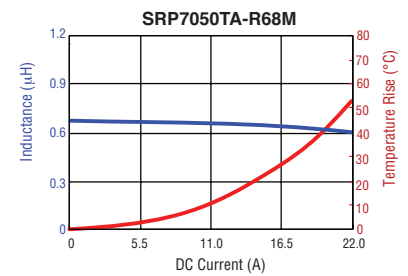
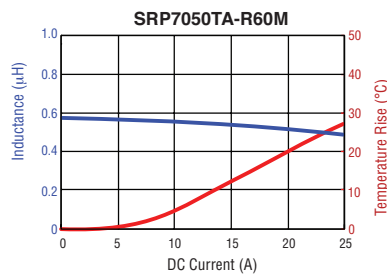
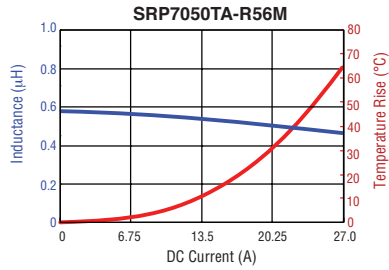
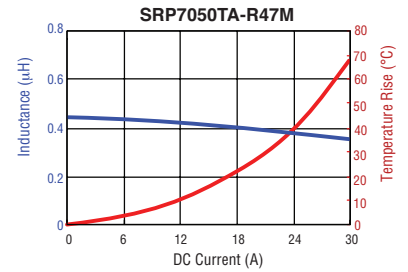
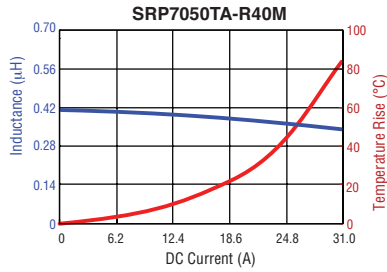
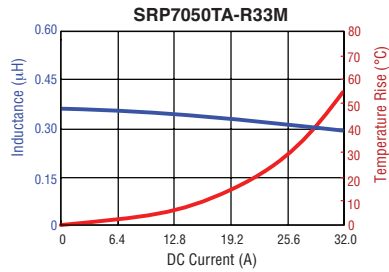
Users should verify actual device performance in their specific applications.

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SRP7050TA Series - Shielded Power Inductor

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L vs. I Charts



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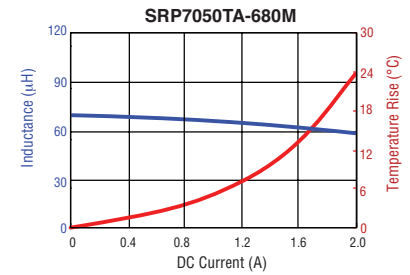
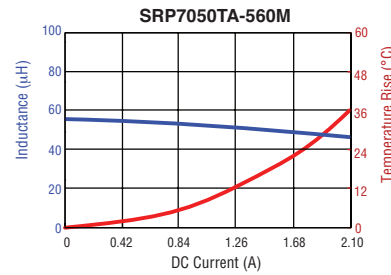
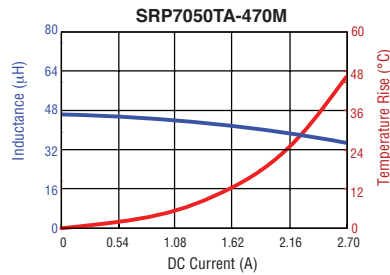
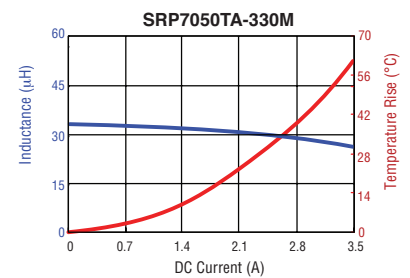
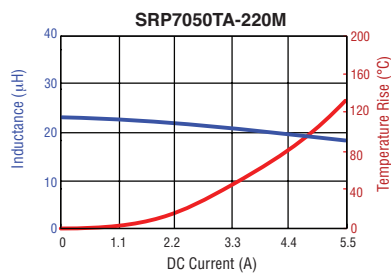
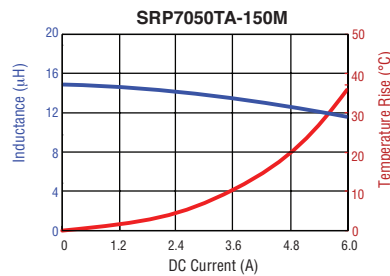
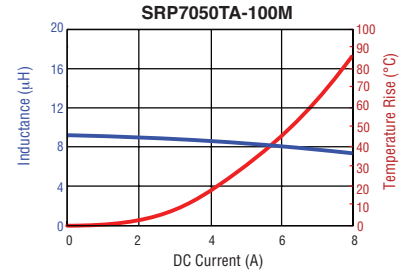
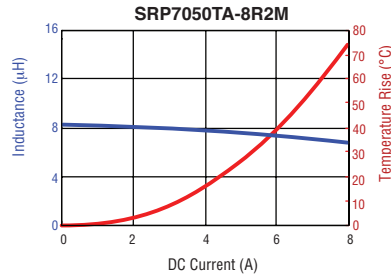
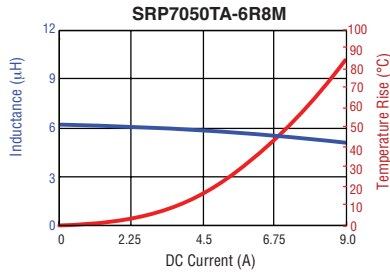
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L vs. I Charts (Continued)



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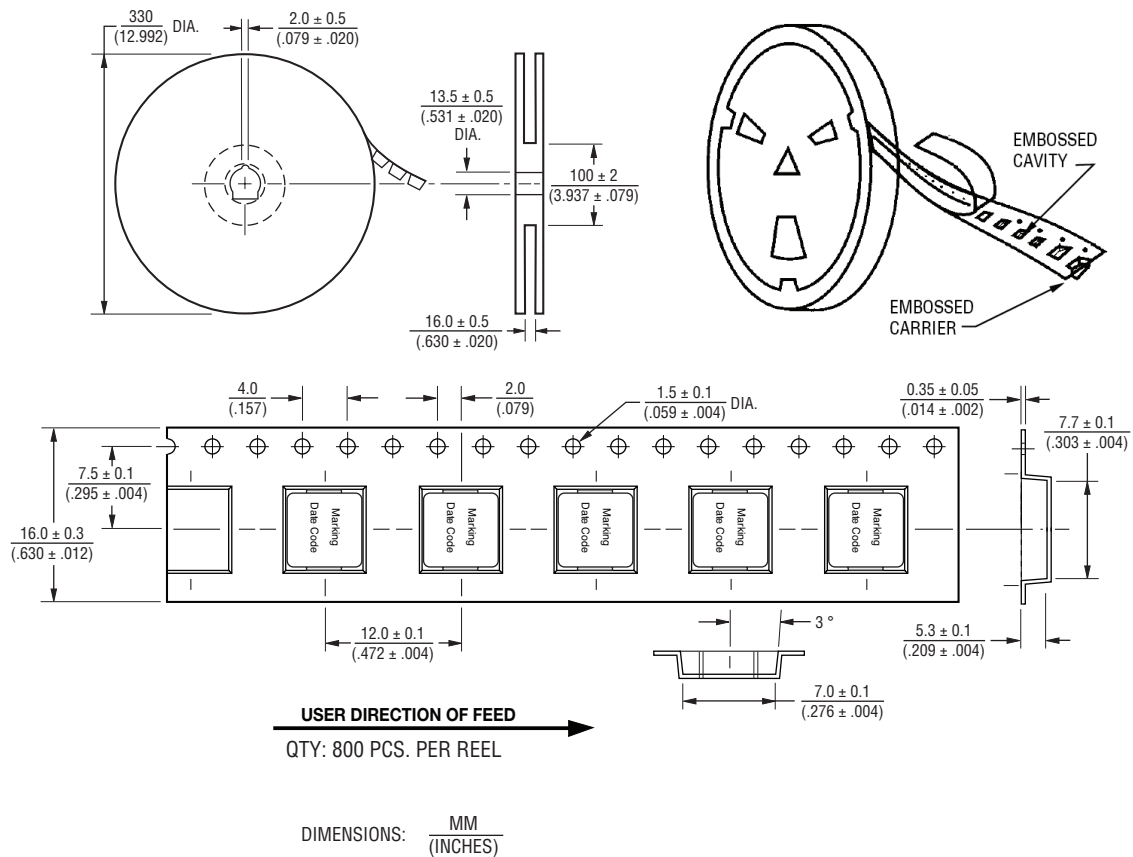
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Packaging Specifications



REV. 11/17

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