

Features

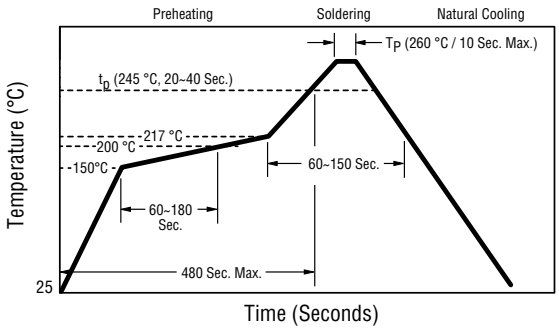
- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.33 to 68 µH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP7050TA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

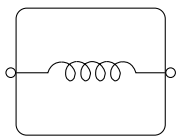
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @100 KHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A)	Isat (A)	Terminal Type
	L (µH)	Tol. (%)							
SRP7050TA-R33M	0.33	± 20	10	100	2.5	3	25	32	Lead Frame
SRP7050TA-R40M	0.40	± 20	10	100	3.1	3.7	23	31	
SRP7050TA-R47M	0.47	± 20	10	95	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.

Schematic



How to Order

SRP7050TA - 100 M

Model
Value Code (see table)
Tolerance Code

WARNING Cancer and Reproductive Harm 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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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 Isat
Temperature Rise .....40 °C at rated Irms
Moisture Sensitivity Level 1
ESD Classification (HBM).....N/A

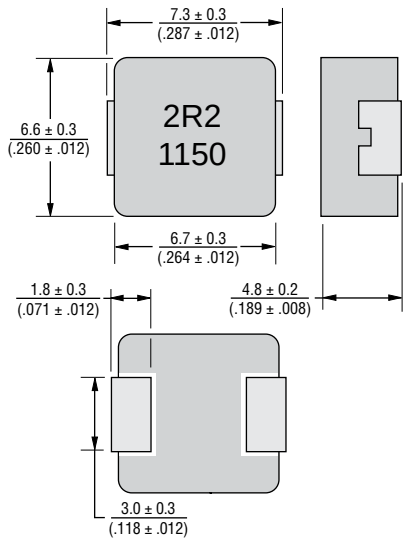
Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

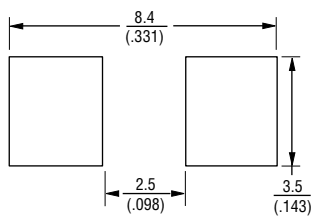
Core.....Carbonyl powder
Wire .....Enameled copper
Terminal Finish .....Sn
Packaging..... 800 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



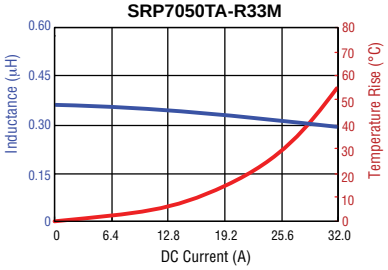
Recommended Layout



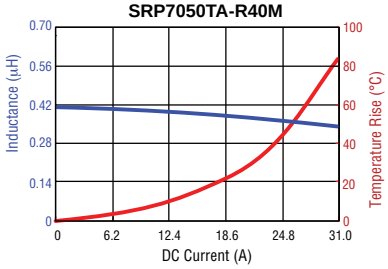
DIMENSIONS: MM (INCHES)

L vs. I Charts

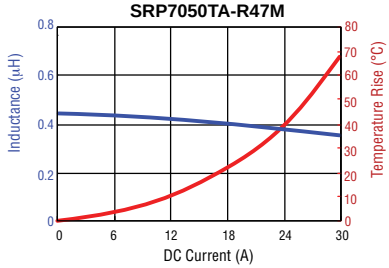
SRP7050TA-R33M



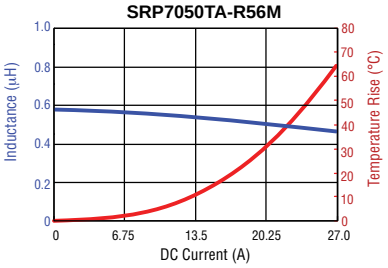
SRP7050TA-R40M



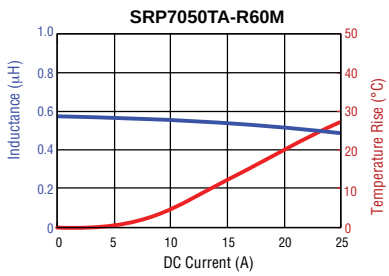
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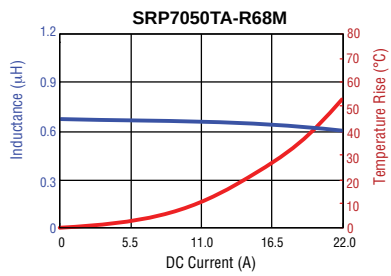
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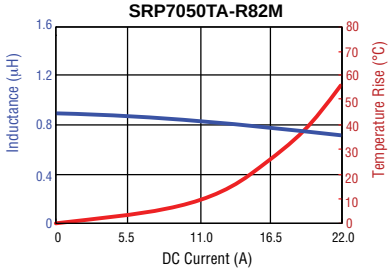
SRP7050TA-R60M



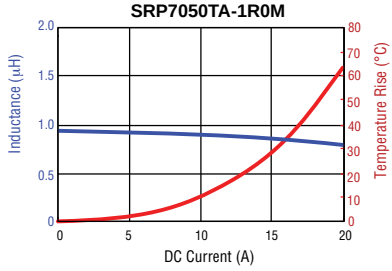
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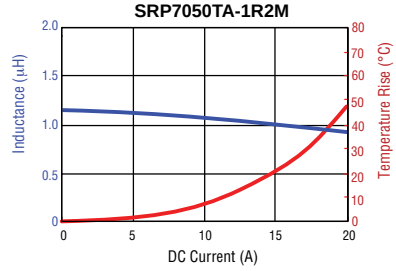
SRP7050TA-R82M



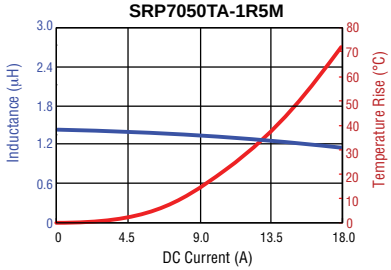
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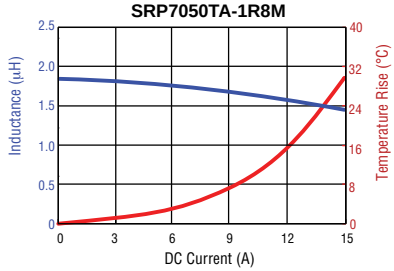
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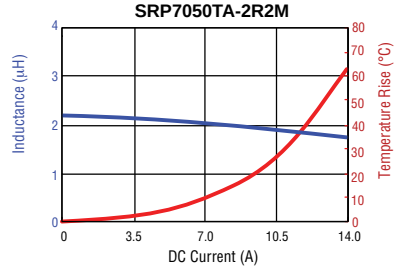
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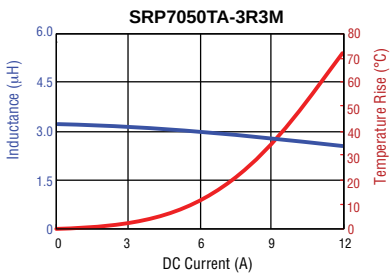
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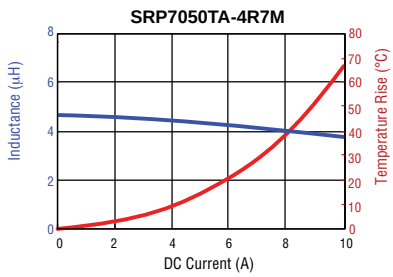
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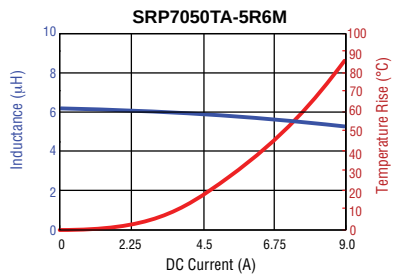
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SRP7050TA-4R7M

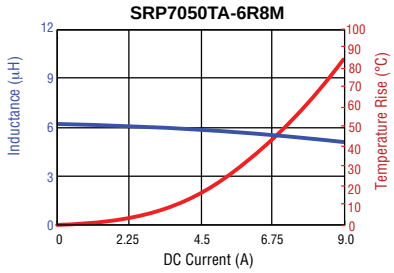


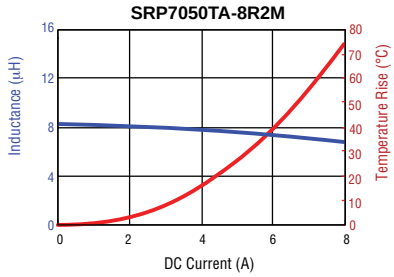
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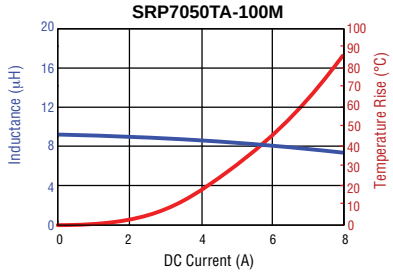


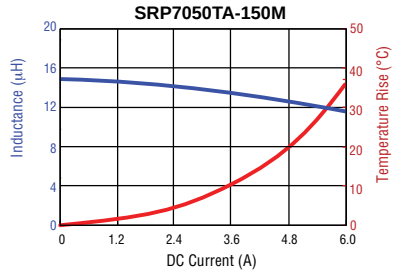
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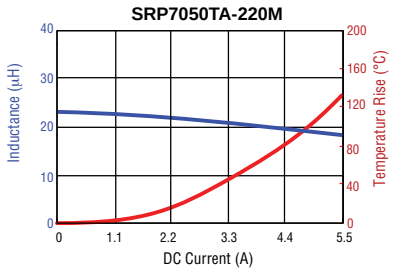
L vs. I Charts (Continued)

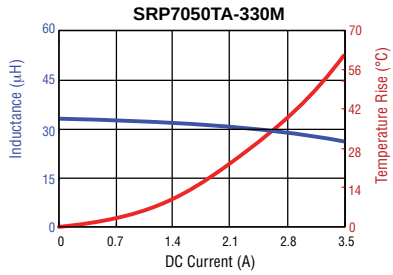


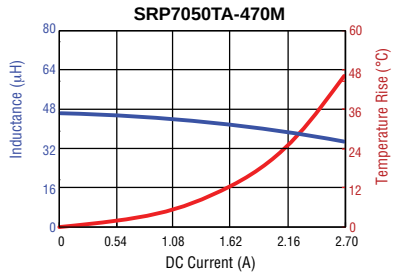


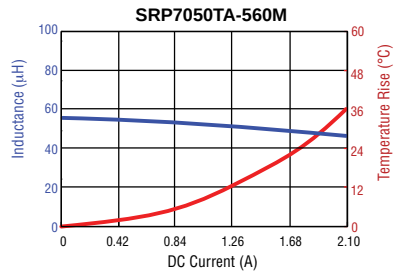


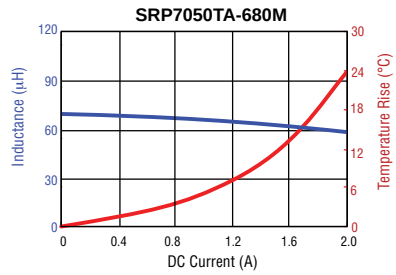






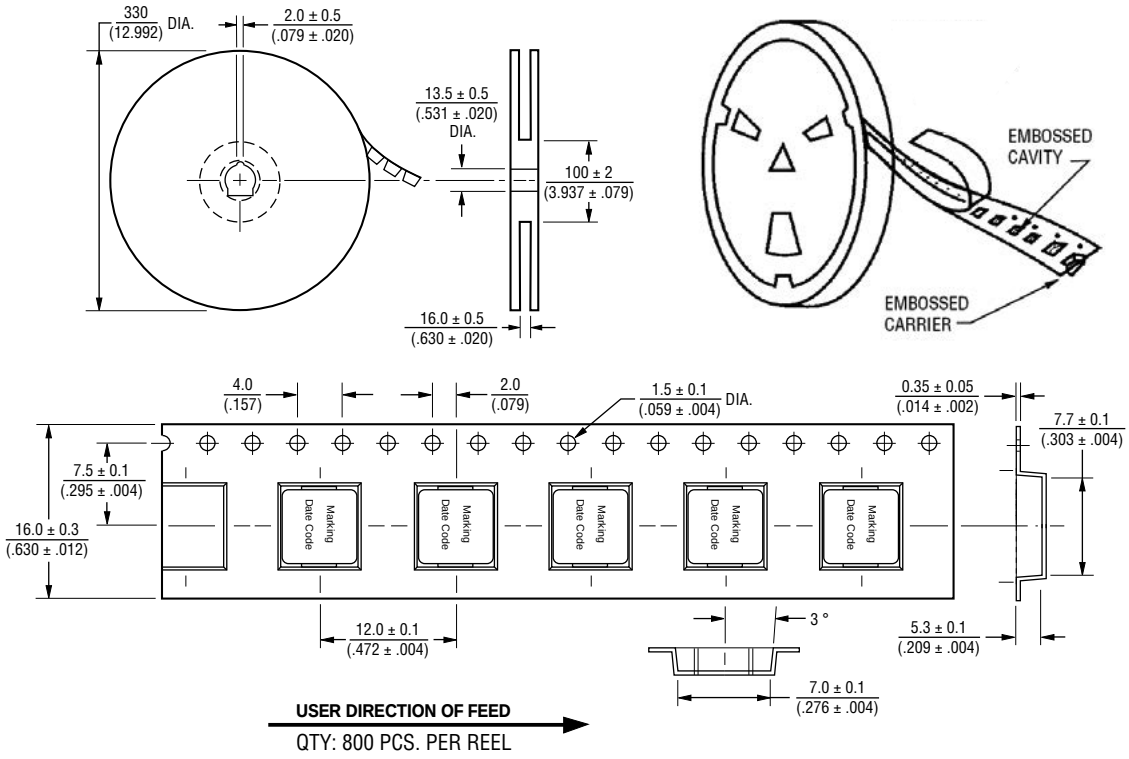






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Packaging Specifications



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REV. 11/19

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