



Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.10 to 33 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

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

SRP7028A 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)	I _{sat} (A)	Terminal Type
	L (μ H)	Tol. (%)							
SRP7028A-R10M	0.10	± 20	5	300	1.2	1.7	32.5	60	Lead Frame
SRP7028A-R15Y	0.15	± 30	5	220	1.5	1.9	27	45	
SRP7028A-R22Y	0.22	± 30	5	150	2.1	2.8	23	40	
SRP7028A-R33M	0.33	± 20	10	140	3.5	3.9	20	32	
SRP7028A-R47M	0.47	± 20	10	80	4	4.2	17.5	26	
SRP7028A-R56M	0.56	± 20	15	70	4.7	5.0	16.5	25.5	
SRP7028A-R68M	0.68	± 20	15	67	4.8	5.5	15.5	25	
SRP7028A-R75M	0.75	± 20	15	65	5.5	6.6	14.5	24.5	
SRP7028A-R82M	0.82	± 20	15	61	6.7	8.0	13	24	
SRP7028A-1R0M	1.0	± 20	20	58	8.3	10.0	11	22	
SRP7028A-1R5M	1.5	± 20	20	38	13	15.0	9	18	
SRP7028A-1R8M	1.8	± 20	20	36	14	17.0	8.5	16	
SRP7028A-2R2M	2.2	± 20	20	32	18	20.0	8	14	
SRP7028A-2R5M	2.5	± 20	20	30	20	22.0	7	13	
SRP7028A-3R3M	3.3	± 20	20	25	28	30.0	6	12	
SRP7028A-4R7M	4.7	± 20	20	21	37	40.0	5.5	10	
SRP7028A-5R6M	5.6	± 20	20	19	43	48.0	5	9	
SRP7028A-6R8M	6.8	± 20	20	18	54	60.0	4.5	8	
SRP7028A-8R2M	8.2	± 20	20	17	64	68.0	4	7.5	
SRP7028A-100M	10	± 20	20	14	75	85.0	3.5	6	
SRP7028A-150M	15	± 20	20	12	107	123.0	3.0	4	
SRP7028A-220M	22	± 20	20	10	165	190.0	2.0	3.5	
SRP7028A-330M	33	± 20	20	8	200	240.0	2.0	2.5	

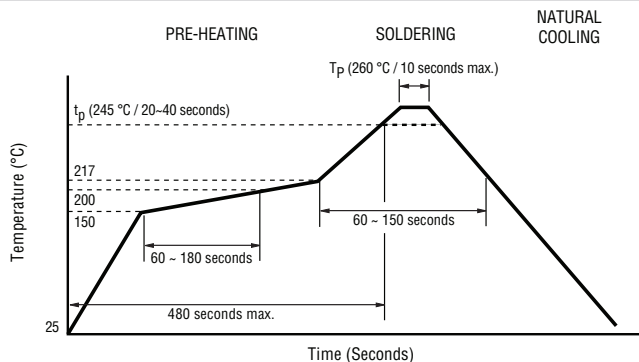
How to Order

SRP7028A - 100M

Model _____
Value Code (see table) _____

Please consult *Bourns® Model SRP-A Series Visual Inspection Guide* for detailed construction, processing and testing information.

Soldering Profile



REFLOW TIMES: 3 MAX.

* 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.

General Specifications

Test Voltage 1.0 V
Test Frequency 100 KHz
Operating Temperature -40 °C to +150 °C
(Temperature rise included)
Storage Temperature .. -40 °C to +125 °C
Rated Current Inductance drops 20 % at I_{sat}
Temperature Rise 40 °C at rated I_{rms}
Resistance to Soldering Heat +260 °C, 40 sec. max.
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

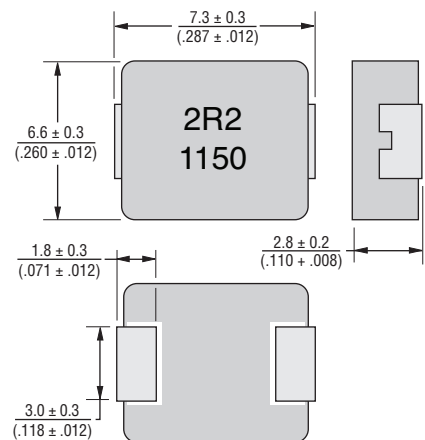
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

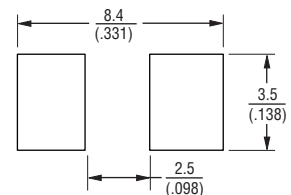
Core Carbonyl powder
Wire Enameled copper
Terminal Finish Sn
Packaging 1000 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



Recommended Layout

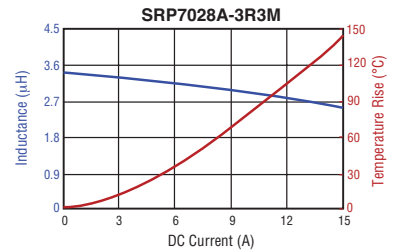
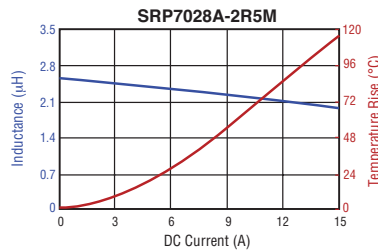
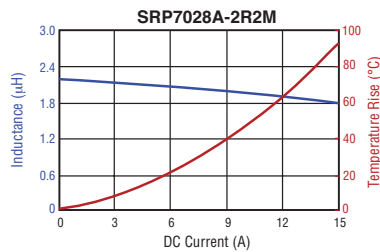
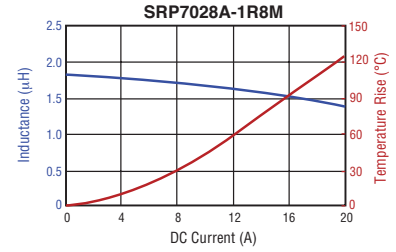
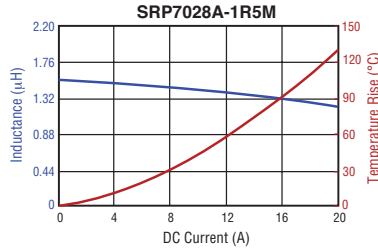
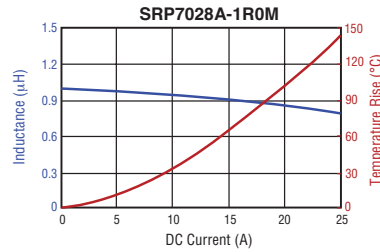
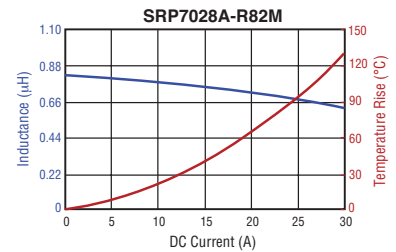
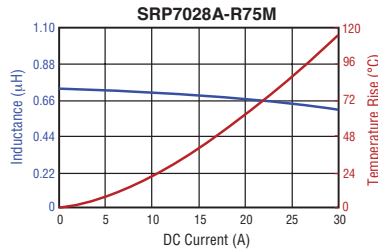
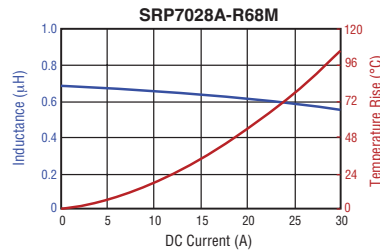
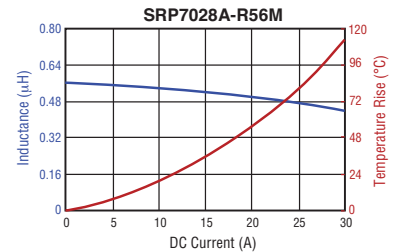
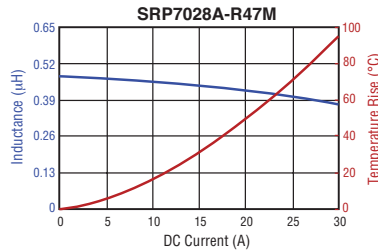
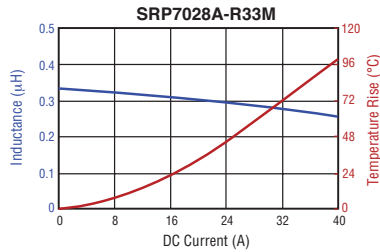
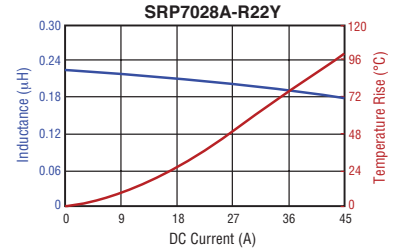
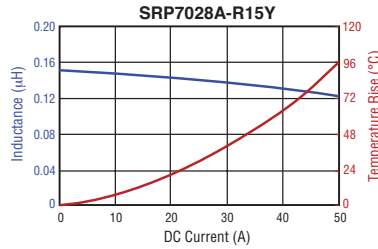
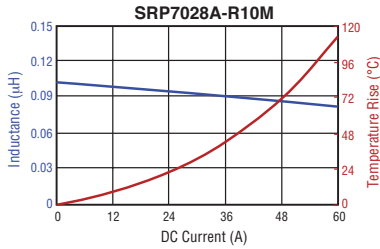


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

SRP7028A Series - Shielded Power Inductors



L vs. I Charts

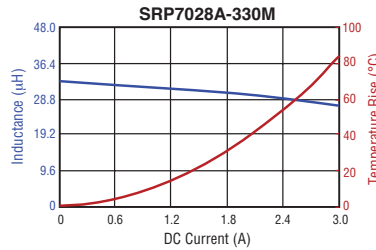
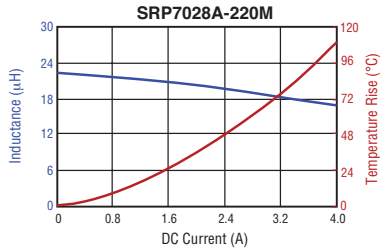
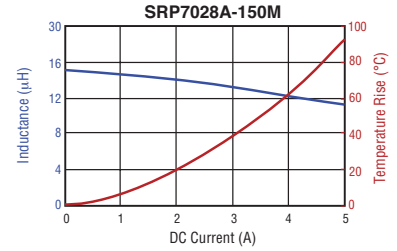
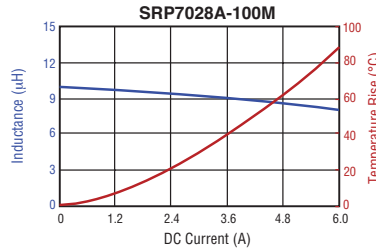
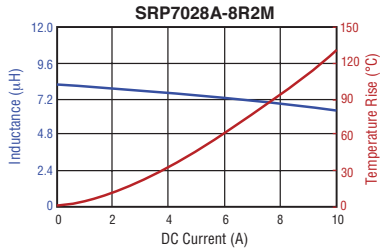
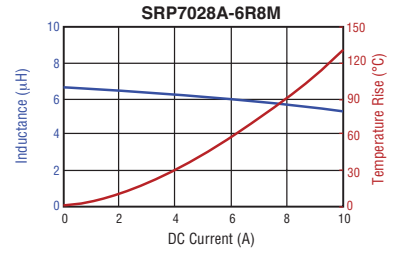
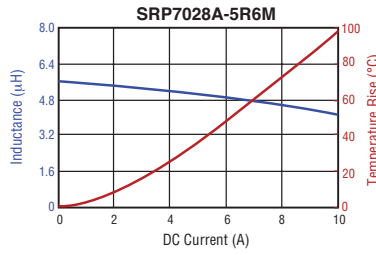
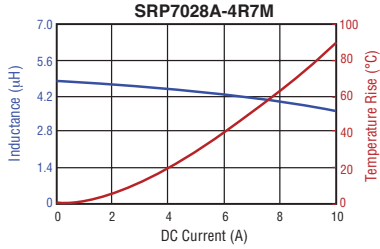


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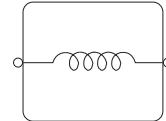
SRP7028A Series - Shielded Power Inductors



L vs. I Charts (Continued)



Electrical Schematic

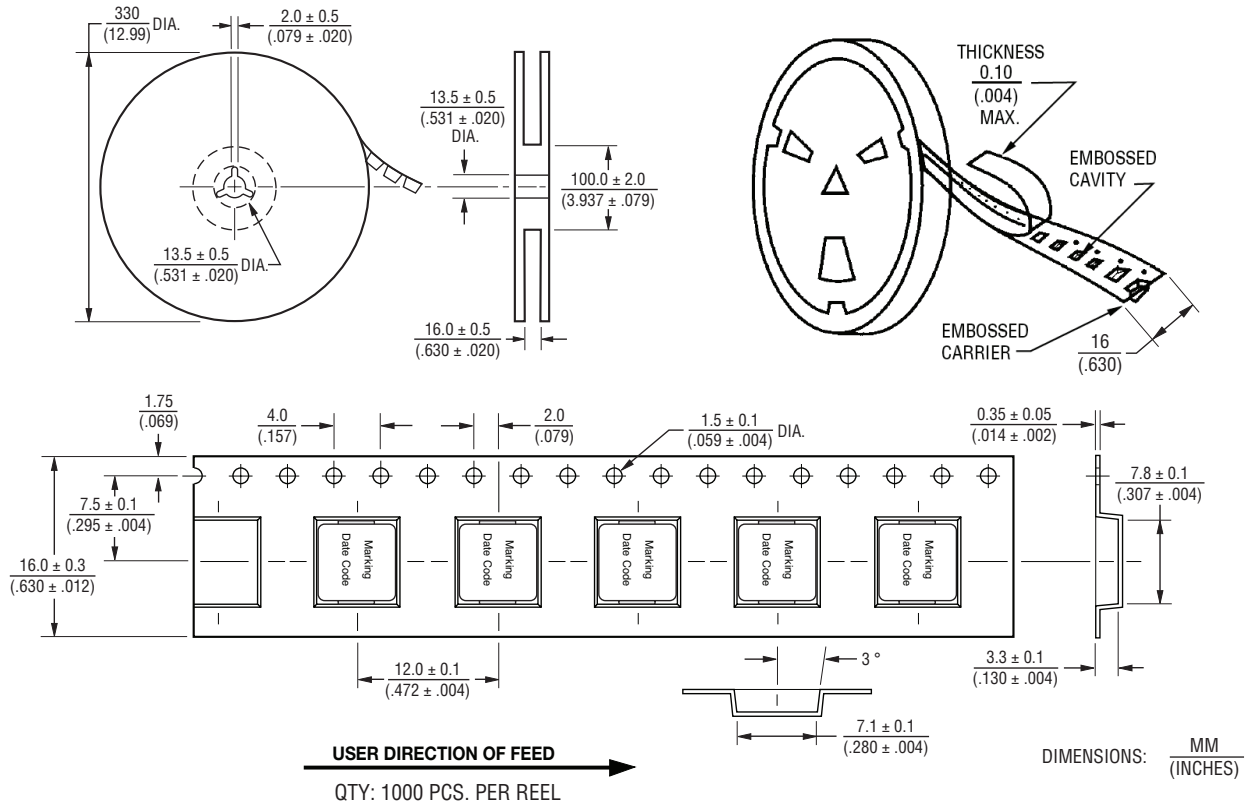


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Packaging Specifications



REV. 04/18

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