

Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.20 to 22 μ H
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

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

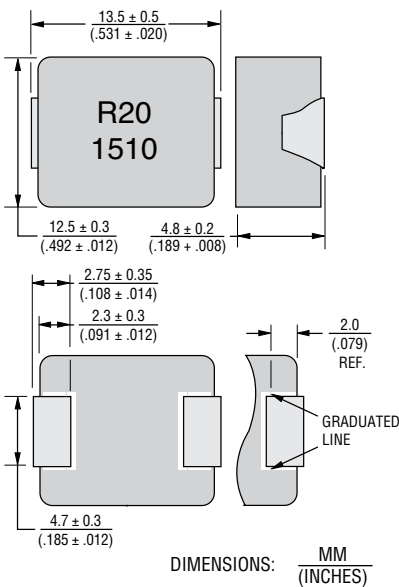
SRP1245A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

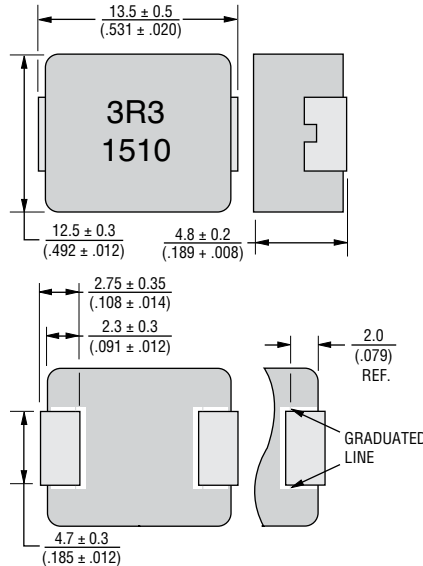
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @100 KHz / 1 V	SRF (MHz) Typ.	DCR (m Ω) Typ.	DCR (m Ω) Max.	I _{rms} (A)	I _{sat} (A)	Terminal Type
	L (μ H)	Tol. (%)							
SRP1245A-R20M	0.20	20	10	130	0.45	0.55	52	110	Non-Lead Frame
SRP1245A-R22M	0.22	20	10	120	0.5	0.7	52	110	
SRP1245A-R33M	0.33	20	15	90	0.7	0.9	42	80	
SRP1245A-R36M	0.36	20	15	80	0.75	0.95	42	75	
SRP1245A-R39M	0.39	20	15	78	0.78	0.95	42	70	
SRP1245A-R47M	0.47	20	20	70	0.86	1.1	38	65	
SRP1245A-R50M	0.50	20	20	65	0.9	1.3	37	60	
SRP1245A-R56M	0.56	20	20	60	1	1.5	36	55	
SRP1245A-R68M	0.68	20	20	50	1.4	1.7	34	54	
SRP1245A-R82M	0.82	20	20	45	1.7	2.1	31	52	
SRP1245A-1R0M	1.0	20	20	40	1.85	2.5	29	50	
SRP1245A-1R2M	1.2	20	20	35	2.5	3.0	28	49	
SRP1245A-1R5M	1.5	20	20	30	2.8	3.3	27	48	
SRP1245A-1R8M	1.8	20	20	27	4	4.9	21	40	
SRP1245A-2R2M	2.2	20	20	24	4.2	5.5	20	32	
SRP1245A-2R7M	2.7	20	20	23	4.7	6.7	17	32	
SRP1245A-3R3M	3.3	20	20	22	6.8	9.2	15	32	
SRP1245A-4R7M	4.7	20	20	15	11.4	15.0	12	27	
SRP1245A-5R6M	5.6	20	20	13	12.3	16.5	11.5	22	
SRP1245A-6R0M	6.0	20	20	12	13	16.5	11.5	21.5	
SRP1245A-6R8M	6.8	20	20	12	14.5	18.5	11	21	
SRP1245A-8R2M	8.2	20	20	11	16.8	22.5	9.5	18	
SRP1245A-100M	10	20	20	10	21.4	25.5	9	16	
SRP1245A-180M	18	20	20	7	40	45.0	7.5	11	
SRP1245A-220M	22	20	20	6	50	58	6.5	10	

Product Dimensions

Non-Lead Frame Terminal



Lead Frame Terminal



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) 3B

Materials

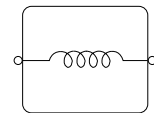
Core Carbonyl powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 500 pcs. per 13-inch reel

How to Order

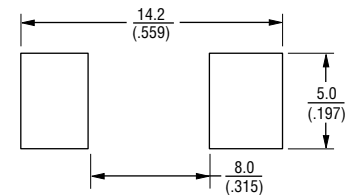
SRP1245A - 100M

Model _____
 Value Code (see table) _____

Electrical Schematic



Recommended Layout



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

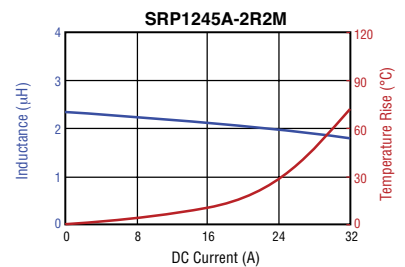
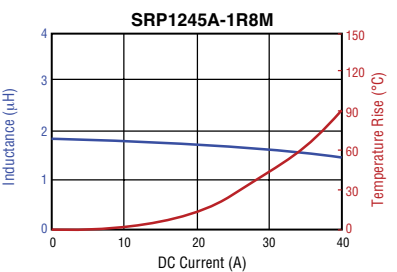
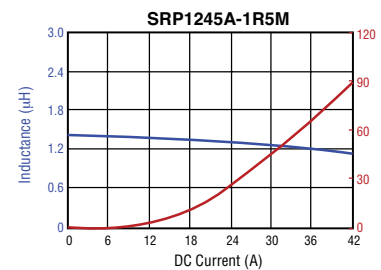
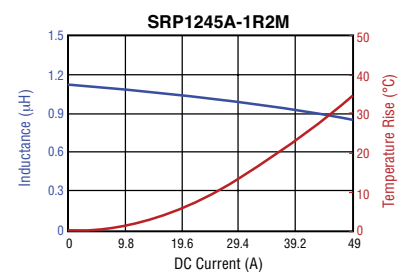
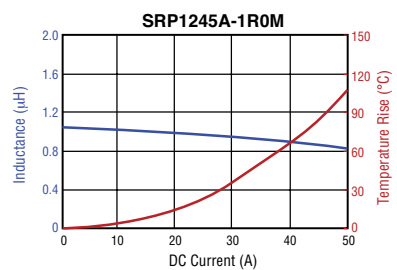
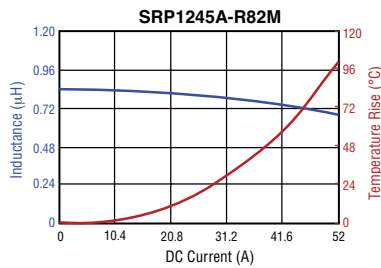
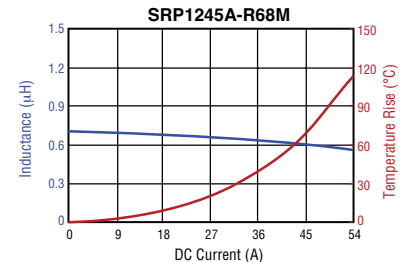
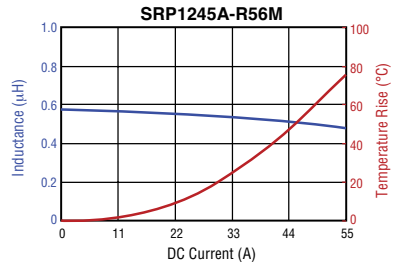
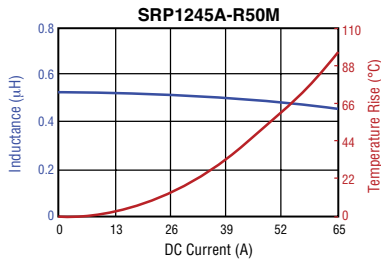
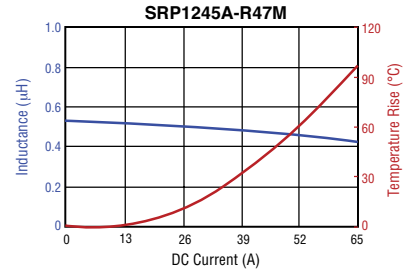
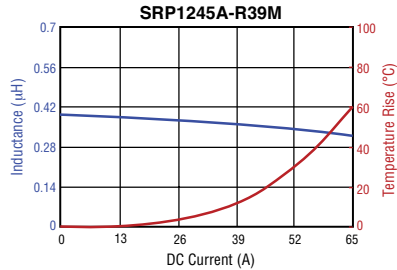
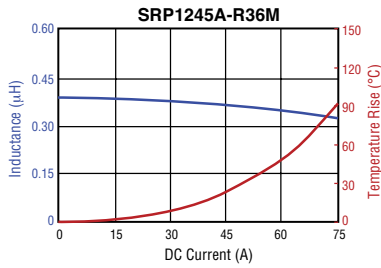
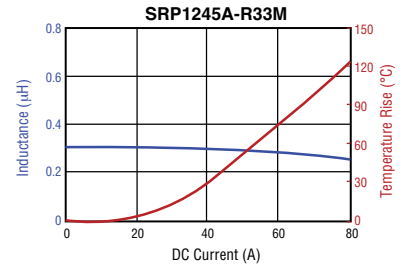
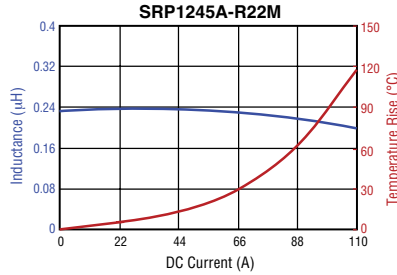
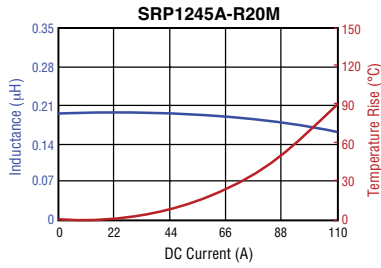
* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
 **Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) 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.

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L vs. I Charts

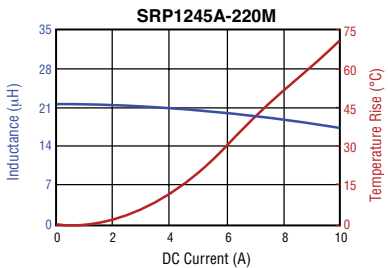
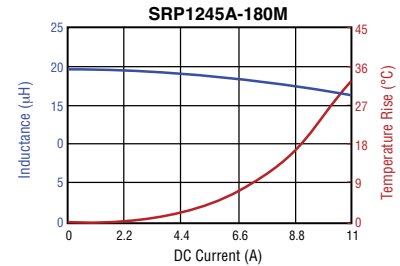
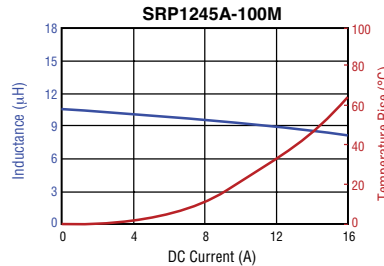
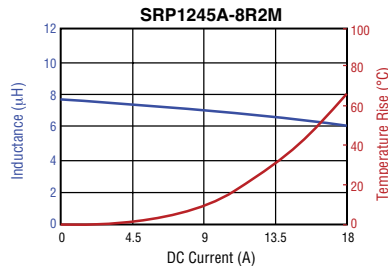
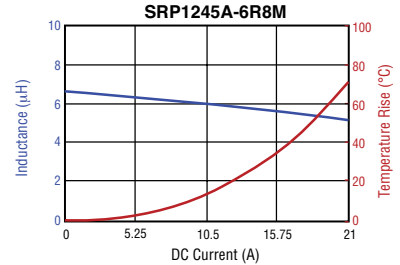
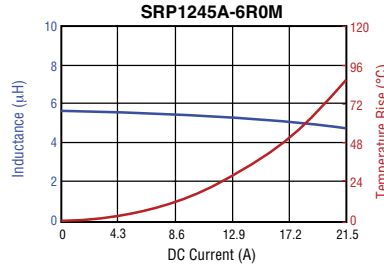
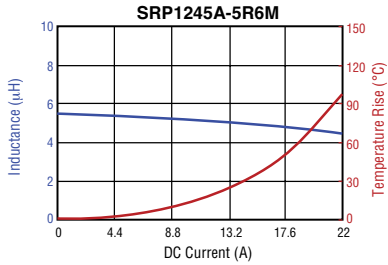
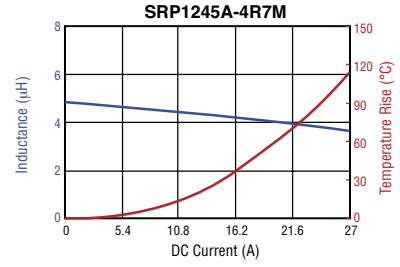
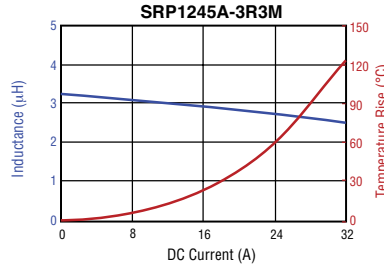
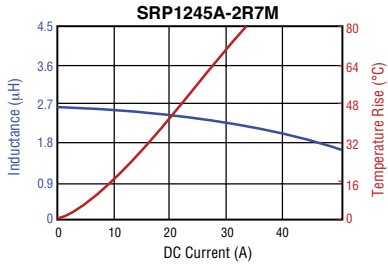


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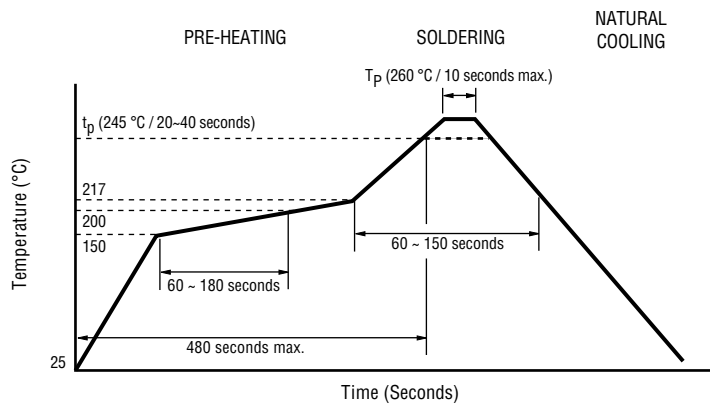
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L vs. I Charts



Soldering Profile



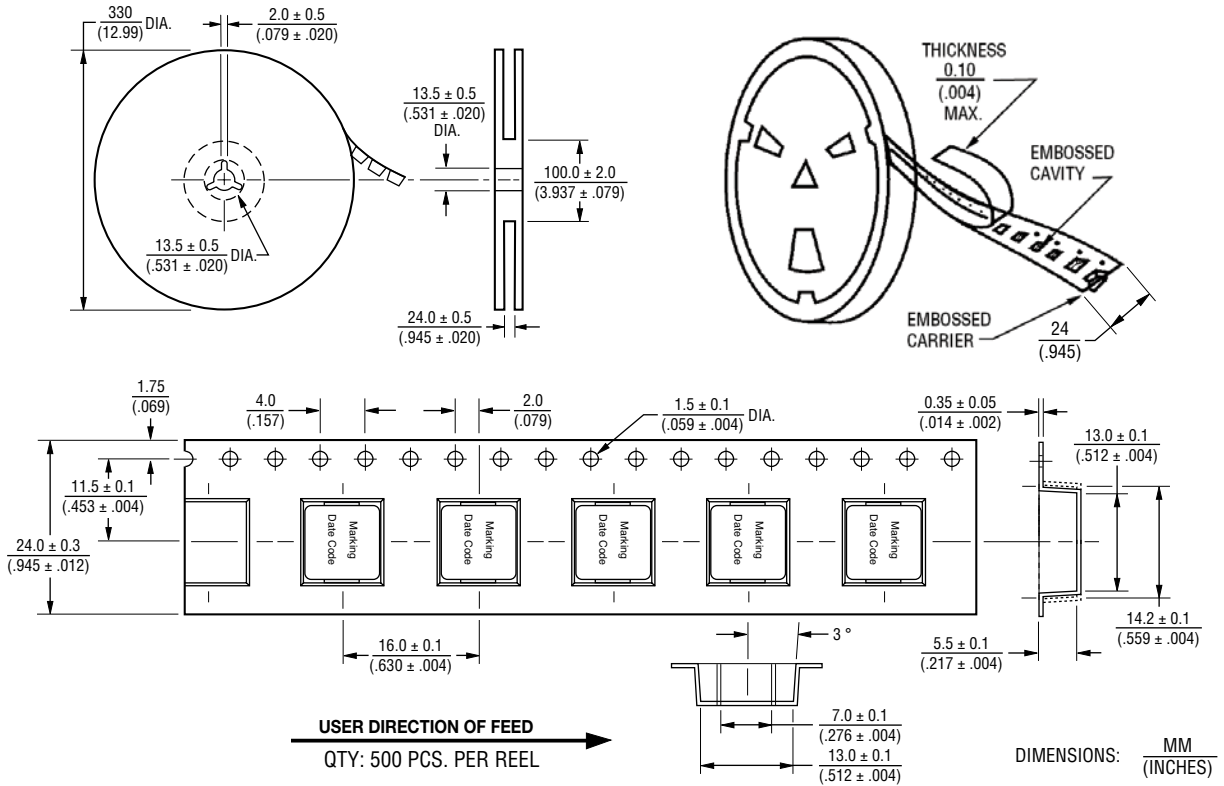
REFLOW TIMES: 3 MAX.

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Packaging Specifications



REV. 06/17

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