



**THE DATASHEET OF
SRP1238A-R33M**





Features

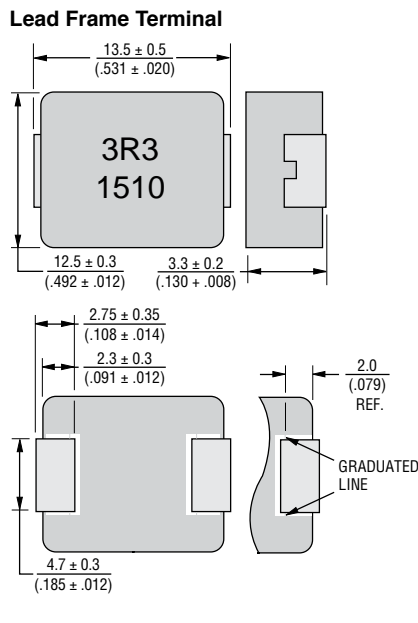
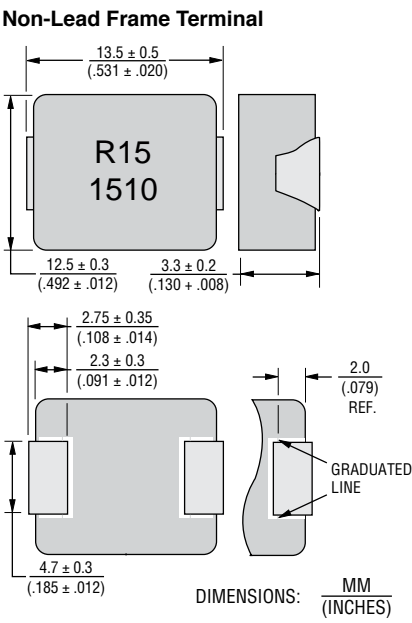
- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.10 to 10 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP1238A 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. (%)							
SRP1238A-R10Y	0.10	± 30	10	175	0.36	0.43	43	84	Non-Lead Frame
SRP1238A-R15Y	0.15	± 30	10	140	0.4	0.48	41	75	
SRP1238A-R22M	0.22	± 20	10	125	0.7	0.81	38.5	65	
SRP1238A-R33M	0.33	± 20	10	85	0.85	1.0	36.5	62	
SRP1238A-R47M	0.47	± 20	10	80	1.2	1.8	32	55	
SRP1238A-R60M	0.60	± 20	15	53	1.5	2.2	29	51	
SRP1238A-R68M	0.68	± 20	15	50	1.9	2.5	28	49	
SRP1238A-R82M	0.82	± 20	15	45	2.2	3.0	25	44	
SRP1238A-1R0M	1.0	± 20	15	40	2.7	3.5	24	40	
SRP1238A-1R2M	1.2	± 20	20	35	4	4.0	21	37	
SRP1238A-1R5M	1.5	± 20	20	30	4.8	5.5	19	35	
SRP1238A-1R8M	1.8	± 20	20	27	5.2	7.0	17	30	
SRP1238A-2R2M	2.2	± 20	20	25	6.3	8.0	16	29	
SRP1238A-3R3M	3.3	± 20	20	20	11	13.5	12	27	
SRP1238A-4R7M	4.7	± 20	20	15	15.3	18.5	10	24	
SRP1238A-5R6M	5.6	± 20	20	15	18	22.0	9.5	19	
SRP1238A-6R8M	6.8	± 20	20	13	20	24.0	9	18	
SRP1238A-8R2M	8.2	± 20	20	12	23	28.0	8.5	16	
SRP1238A-100M	10	± 20	20	11	29	34.0	7	14	

Product Dimensions



General Specifications

Test Voltage 1.0 V
 Test Frequency 100 KHz
 Operating Temperature -55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature -55 °C to +150 °C
 Rated Current Inductance drops 20 % at I_{sat}
 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.

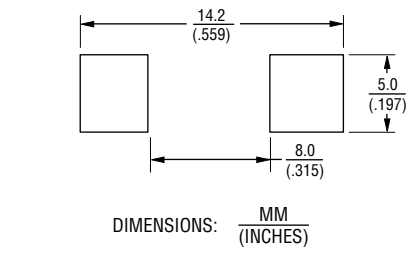
Materials

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

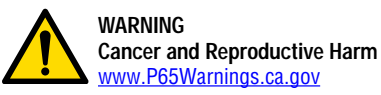
How to Order



Recommended Layout



Please consult [Bourns® Model SRP-A Series Visual Inspection Guide](#) for detailed construction, processing and testing information.

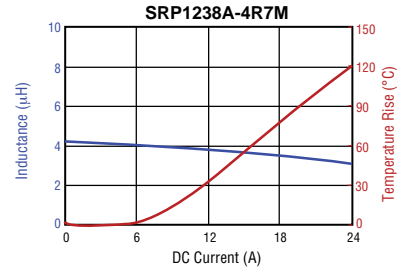
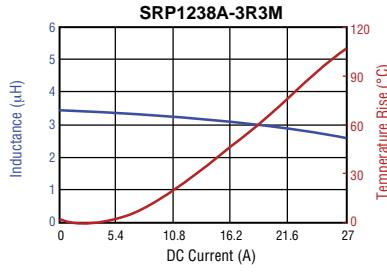
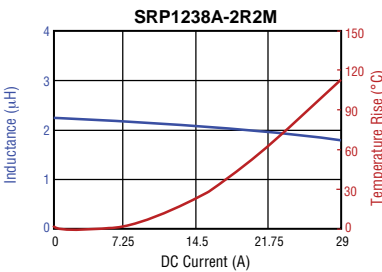
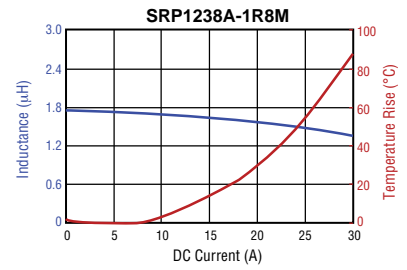
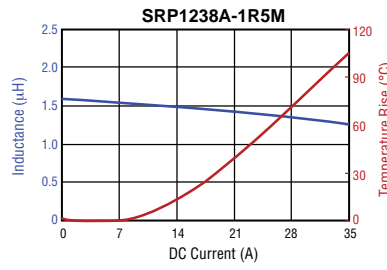
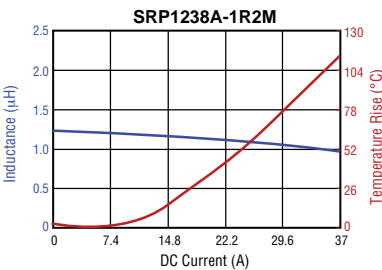
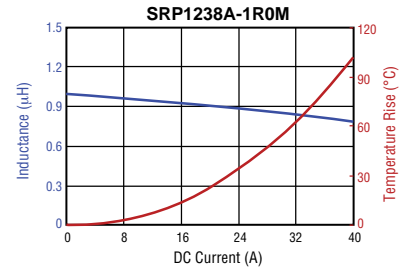
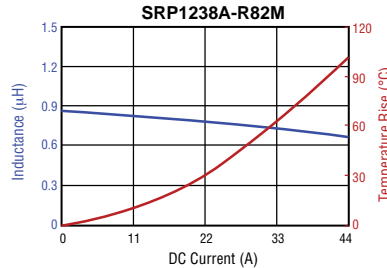
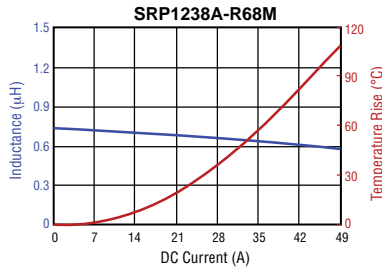
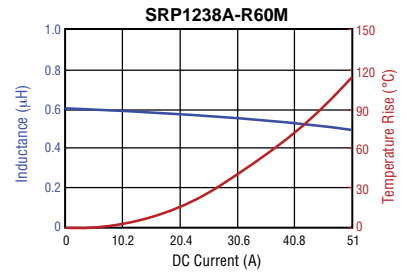
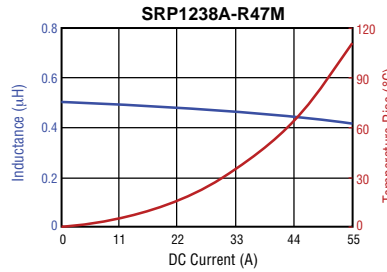
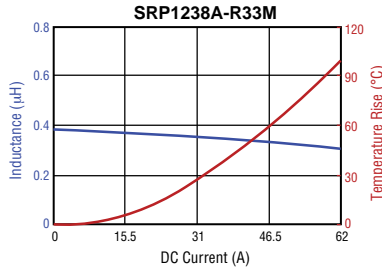
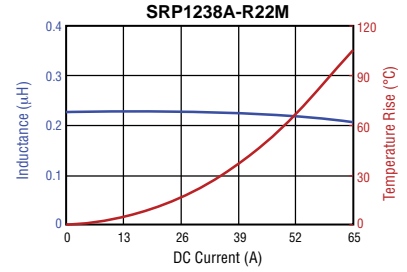
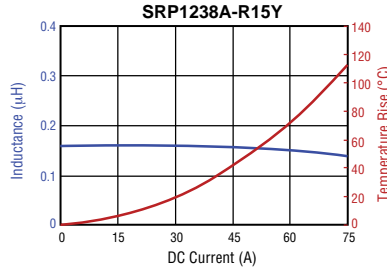
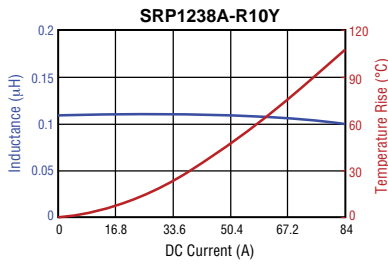


* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 **Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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SRP1238A Series - Shielded Power Inductors



L vs. I Charts



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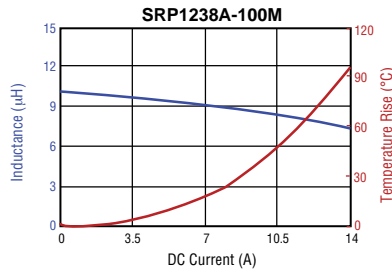
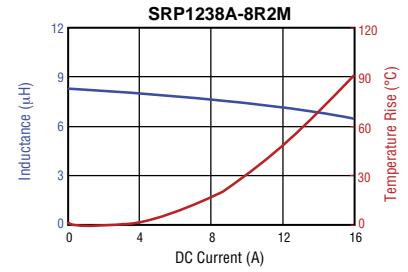
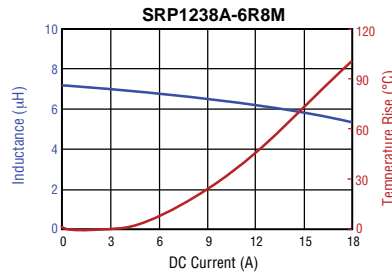
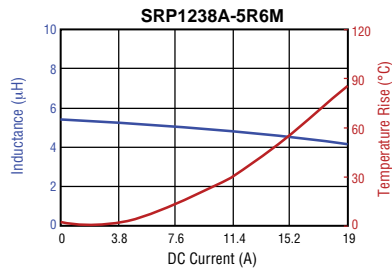
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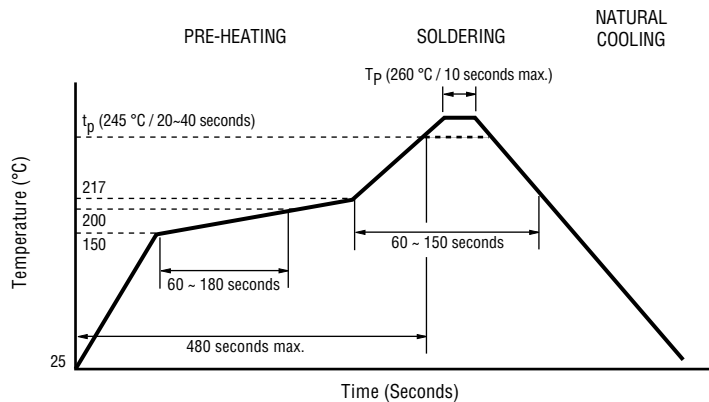
SRP1238A Series - Shielded Power Inductors



L vs. I Charts (Continued)

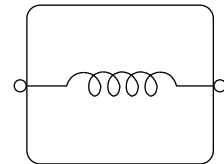


Soldering Profile



REFLOW TIMES: 3 MAX.

Electrical Schematic



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