

Features

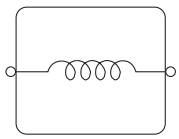
- Shielded construction for low radiation
- Metal powder core
- High saturation current
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP8540A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Typ.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. (%)						
SRP8540A-R22M	0.22	± 20	10	132	1.6	1.76	31	60
SRP8540A-R33M	0.33	± 20	10	90	2	2.2	30	55
SRP8540A-R47M	0.47	± 20	10	69	2.6	2.86	28	40
SRP8540A-R56M	0.56	± 20	15	58	2.7	2.97	25	38
SRP8540A-R68M	0.68	± 20	15	56	3.1	3.41	23	36
SRP8540A-R82M	0.82	± 20	15	46	3.7	4.1	21	32
SRP8540A-1R0M	1.0	± 20	20	35	4.5	4.95	18	29
SRP8540A-1R5M	1.5	± 20	20	33	6.6	7.3	17	27
SRP8540A-2R2M	2.2	± 20	20	27	10.8	11.9	16	25
SRP8540A-3R3M	3.3	± 20	20	23	15	16.5	14	22
SRP8540A-4R7M	4.7	± 20	20	17	26.8	29.5	8.5	19
SRP8540A-5R6M	5.6	± 20	20	15	30	35	7.5	17
SRP8540A-6R8M	6.8	± 20	20	14	40	46	6.5	16.5
SRP8540A-8R2M	8.2	± 20	20	13	44	51	6	16
SRP8540A-100M	10	± 20	20	10	53	61	5.6	10
SRP8540A-220M	22	± 20	20	9	100	120	3.9	8

Schematic

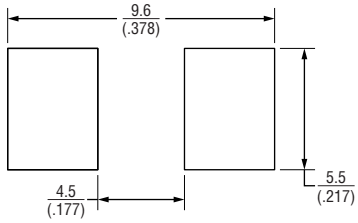


How to Order

SRP8540A - 100 M

Model
Value Code (see table)
Tolerance Code

Recommended Layout



DIMENSIONS: MM (INCHES)

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

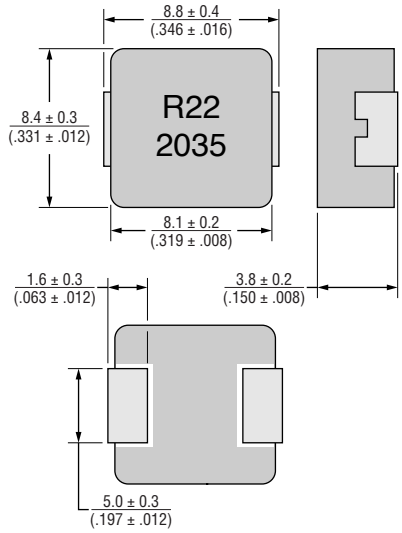
Operating Temperature
..... -55 °C to +150 °C
(Temperature rise included)
Storage Temperature
..... -55 °C to +150 °C
Rated Current
..... Inductance drops 30 % at Isat
Temperature Rise .... 40 °C at rated Irms[1]
Moisture Sensitivity Level.....1
ESD Classification (HBM).....N/A

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.....Metal alloy powder
Wire .....Enameled copper
Terminal Finish .....Ni/Sn
Packaging..... 800 pcs. per 13-inch reel

Product Dimensions



DIMENSIONS: MM (INCHES)

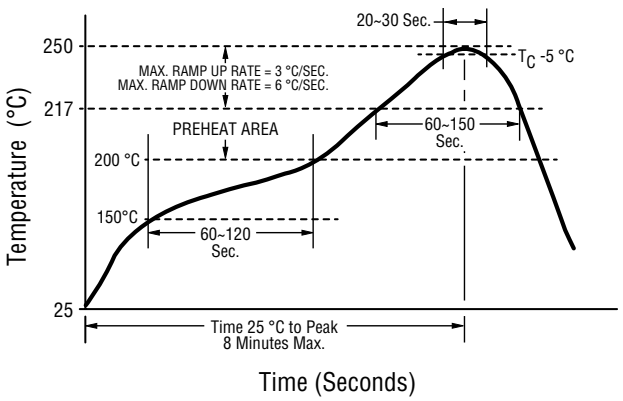
WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

* 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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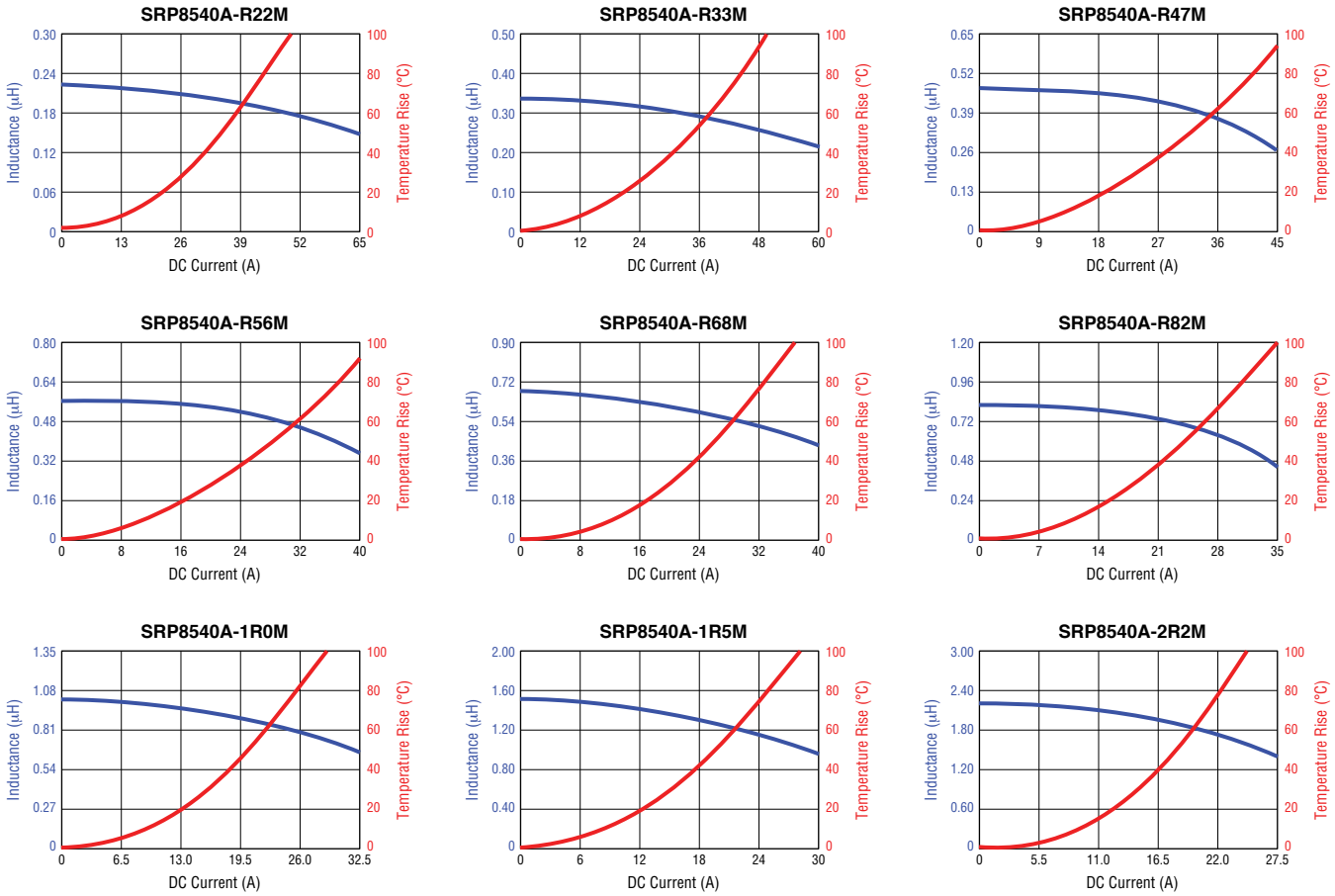
Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	250 °C
Time within 5 °C of Actual Peak Temperature (t_p)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

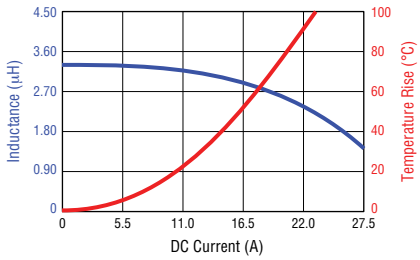
L vs. I Charts



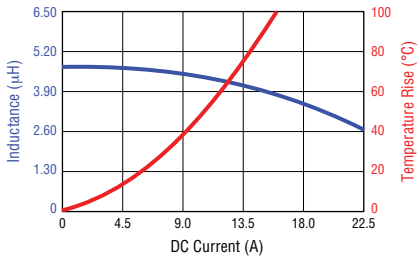
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L vs. I Charts

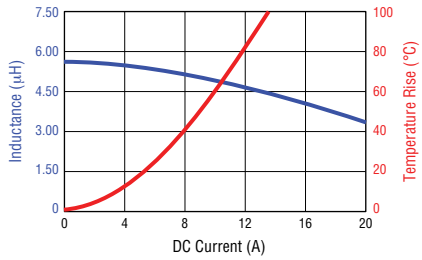
SRP8540A-3R3M



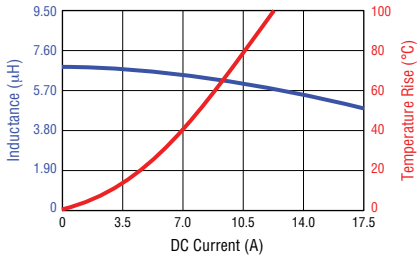
SRP8540A-4R7M



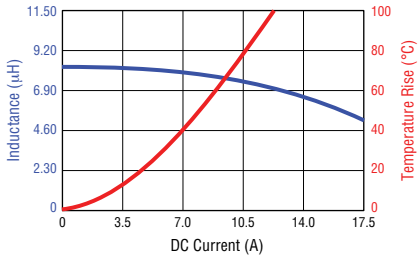
SRP8540A-5R6M



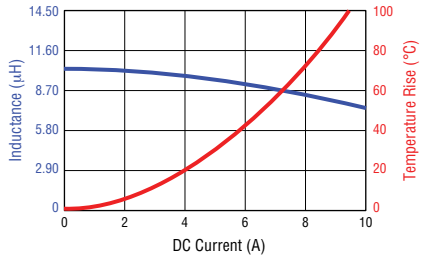
SRP8540A-6R8M



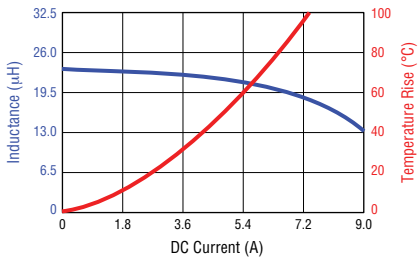
SRP8540A-8R2M



SRP8540A-100M

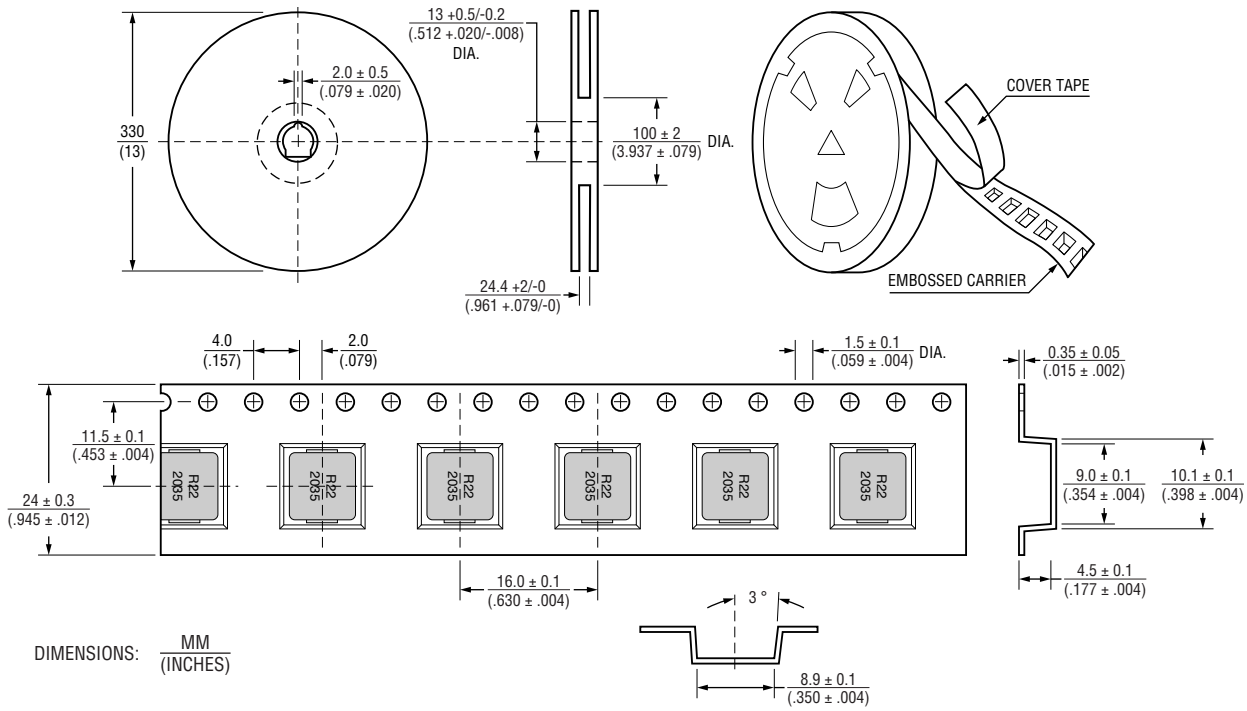


SRP8540A-220M



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Packaging Specifications



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