



Features

- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Wide side terminal for enhanced mechanical strength
- High vibration resistance (15 G typical, 30 G peak)

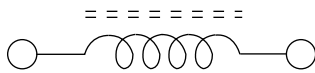
- High operating temperature
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP1265WA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 100 kHz / 1 V | | Q Typ. @ 100 kHz | SRF (MHz) Typ. | DCR (mΩ) Typ. | DCR (mΩ) Max. | Irms (A) Typ. | Isat (A) Typ. |
|-----------------|----------------------------|--------|------------------|----------------|---------------|---------------|---------------|---------------|
| | L (μH) | Tol. % | | | | | | |
| SRP1265WA-R68M | 0.68 | 20 | 20 | 48 | 1.35 | 1.62 | 36.5 | 36.5 |
| SRP1265WA-1R0M | 1.0 | 20 | 20 | 39 | 1.75 | 2.1 | 32 | 32 |
| SRP1265WA-1R5M | 1.5 | 20 | 20 | 30 | 2.3 | 2.76 | 27 | 29 |
| SRP1265WA-2R2M | 2.2 | 20 | 20 | 25 | 3.6 | 4.2 | 23 | 26 |
| SRP1265WA-3R3M | 3.3 | 20 | 20 | 19 | 5.9 | 6.8 | 19 | 24 |
| SRP1265WA-4R7M | 4.7 | 20 | 20 | 16 | 7.3 | 8.4 | 17 | 20 |
| SRP1265WA-5R6M | 5.6 | 20 | 20 | 14 | 9.1 | 10 | 15 | 18 |
| SRP1265WA-6R8M | 6.8 | 20 | 20 | 13 | 9.7 | 11.2 | 14 | 17 |
| SRP1265WA-8R2M | 8.2 | 20 | 20 | 11 | 11.8 | 13.6 | 13 | 16 |
| SRP1265WA-100M | 10 | 20 | 20 | 10 | 14.3 | 16.5 | 12 | 13.5 |
| SRP1265WA-150M | 15 | 20 | 20 | 8 | 23.6 | 27.2 | 9.0 | 10 |
| SRP1265WA-220M | 22 | 20 | 20 | 7 | 34.1 | 39.2 | 7.5 | 8.0 |
| SRP1265WA-330M | 33 | 20 | 20 | 6 | 53 | 61 | 6.3 | 7.2 |
| SRP1265WA-470M | 47 | 20 | 20 | 5 | 74.1 | 89 | 5.2 | 6.0 |

Electrical Schematic



How to Order

SRP1265WA - 1R0M

Model _____
 Value Code (see table) _____

Additional Information

Click these links for more information:



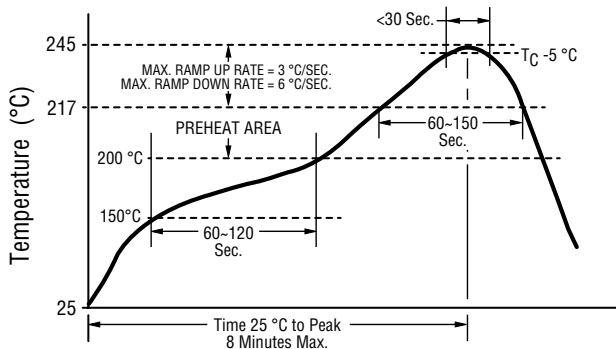
General Specifications

Operating Temperature -55 °C to +165 °C
 (Temperature rise included)
 Storage Temperature (Component) -55 °C to +165 °C
 Temperature Rise ... 40 °C at rated Irms!
 Rated Current Inductance drops 30 % at Isat
 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 Metal alloy powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 500 pcs. per 13-inch reel

Soldering Profile



| 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) | 245 °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. |



WARNING Cancer and Reproductive Harm

www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

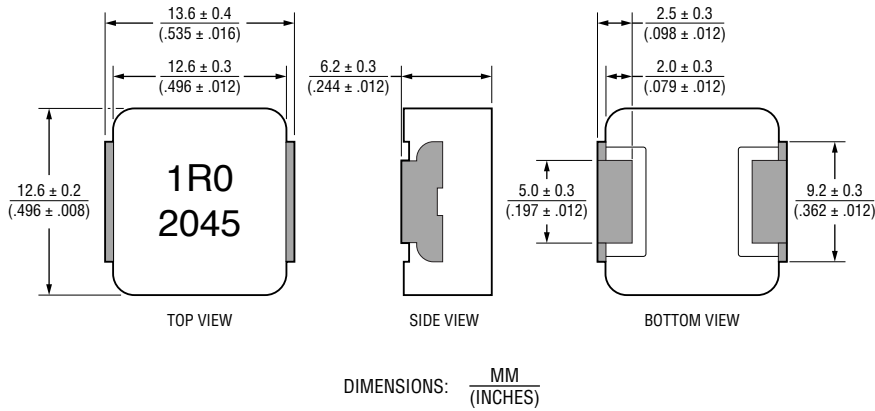
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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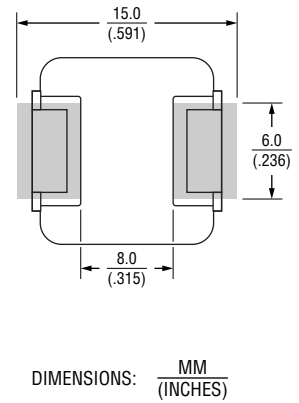
SRP1265WA Series - Shielded Power Inductors

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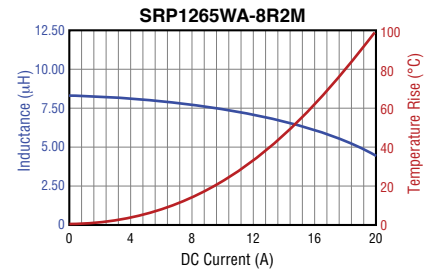
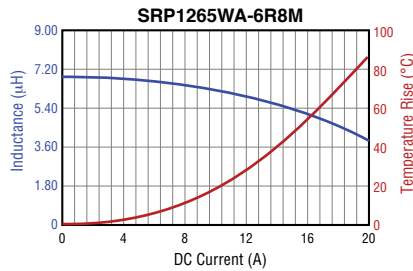
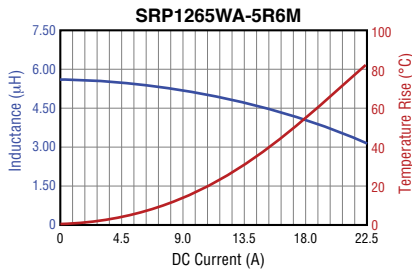
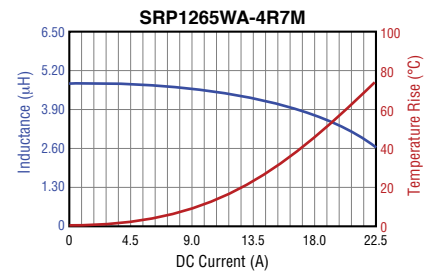
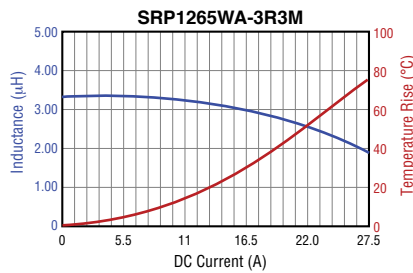
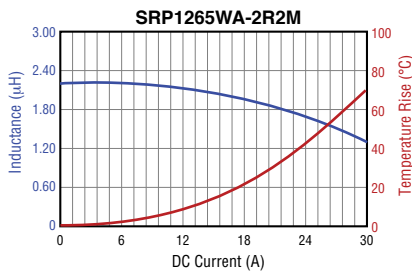
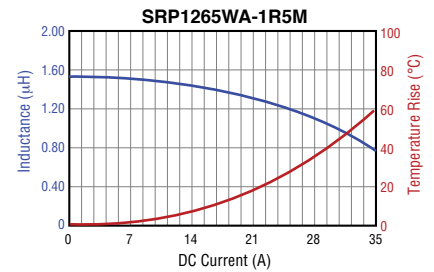
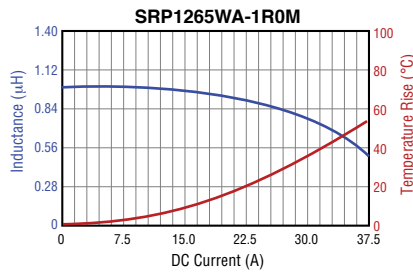
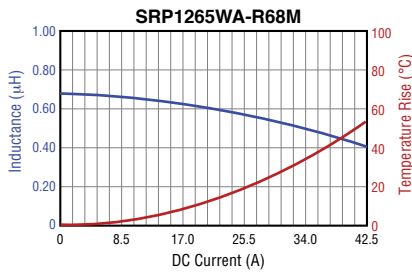
Product Dimensions



Recommended Layout



L vs. I Charts



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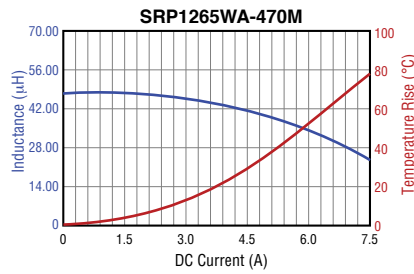
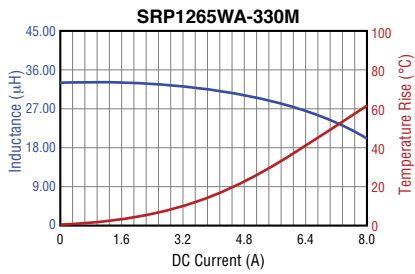
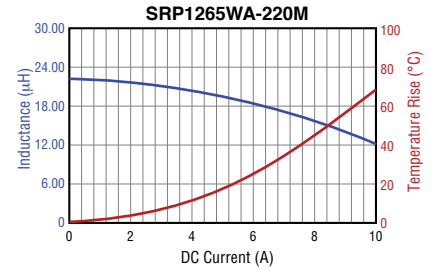
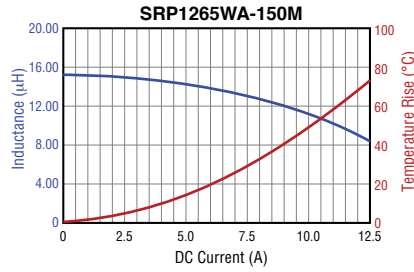
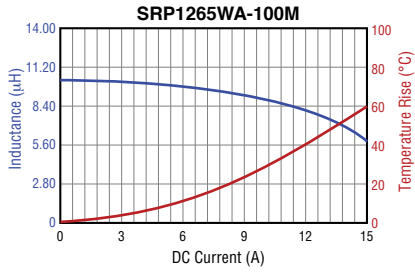
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L vs. I Charts (continued)



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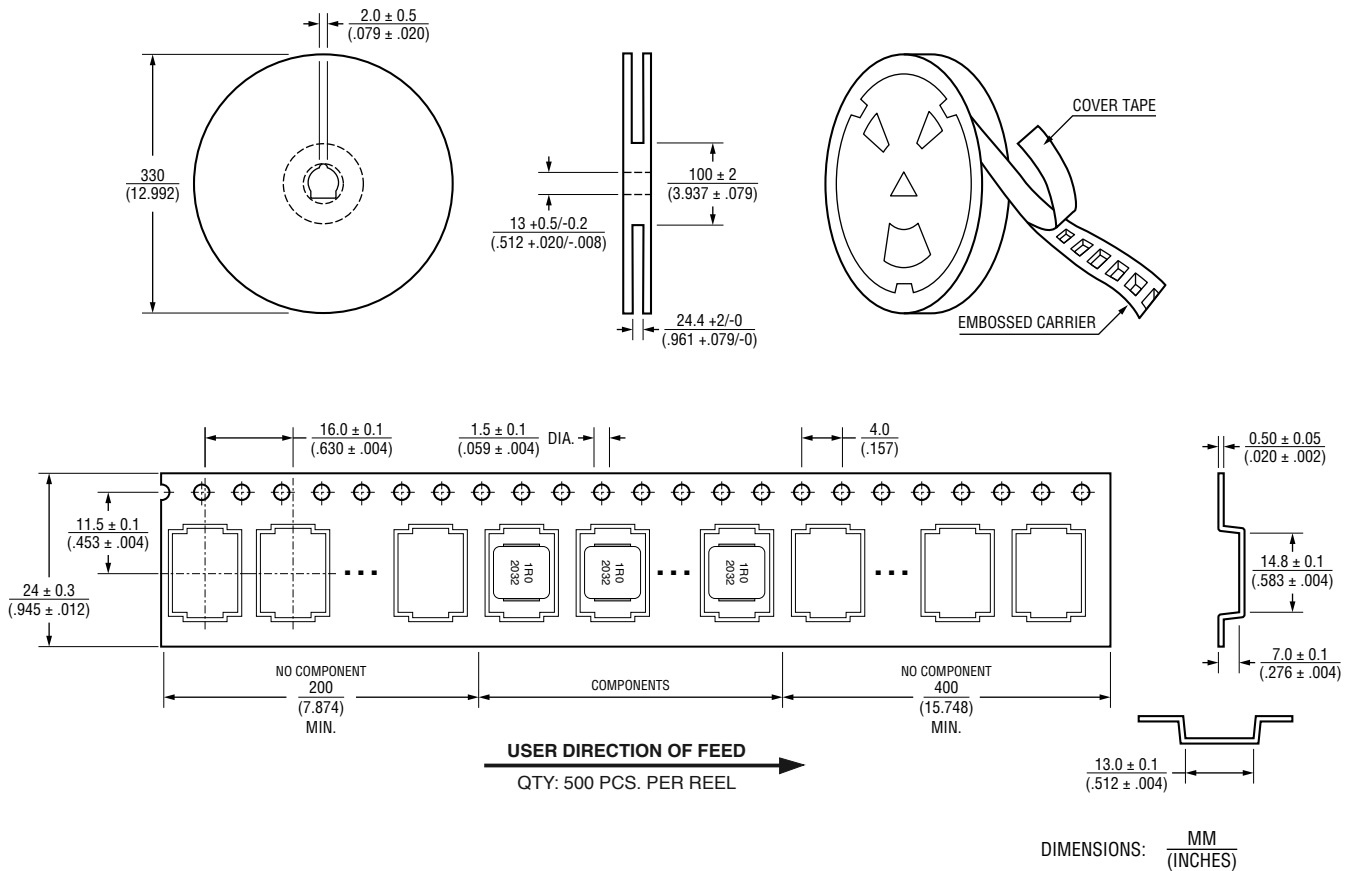
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Packaging Specifications



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