

Features

- Shielded construction for low radiation
- Metal alloy powder core
- High current
- Low profile
- RoHS compliant* and halogen free**

Applications

- DC-DC converters
- Miniature electronic devices

Sustainability

- Small size reduces material use
- High pallet density for lower CO2
- Eco-logistics-friendly packing
- Corrosion-resistant for longevity
- High efficiency, low power loss
- ISO 14001, low-impact energy

Product Overview

These shielded power inductors feature a low profile design and are manufactured with a metal alloy powder core to support high current. With

an operating temperature range of -40 °C to +125 °C, the Bourns® SRP2008DP Series is ideal for DC-DC converters and compact electronic devices.

Electrical Specifications (@ T_A = 25 °C Unless Otherwise Noted)

Bourns Part Number	Inductance @ 1 MHz/1V		DCR (mΩ) Max.	Isat (A) Typ.	Irms (A) Typ.
	L (μH)	Tolerance (%)			
SRP2008DP-R24M	0.24	±20	36.00	5.50	3.50
SRP2008DP-R33M	0.33	±20	41.00	5.10	3.30
SRP2008DP-R47M	0.47	±20	49.00	4.50	3.10
SRP2008DP-R68M	0.68	±20	61.00	4.10	2.80
SRP2008DP-1R0M	1.00	±20	100.00	3.30	2.30
SRP2008DP-1R5M	1.50	±20	157.00	2.30	1.70
SRP2008DP-2R2M	2.20	±20	240.00	2.00	1.50
SRP2008DP-4R7M	4.70	±20	468.00	1.60	1.10

General Specifications

Operating Temperature...-40 °C to +125 °C (Temperature rise included)
 Storage Temperature.....-40 °C to +125 °C
 Temperature Rise40 °C at rated Irms
 Inductance Drop 30 % typ. at Isat
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Materials

CoreMetal alloy powder
 WireEnameled Copper
 Terminal Finish.....Sn
 Packaging3,000 pcs. per 7-inch reel

Contact Information

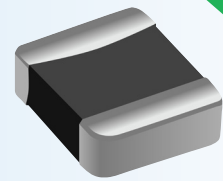
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Asia-Pacific	+886-2 2562-4117	asiacus@bourns.com
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Mexico	+52 614 478 0400	mexicus@bourns.com
The Americas	+1-951 781-5500	americus@bourns.com

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

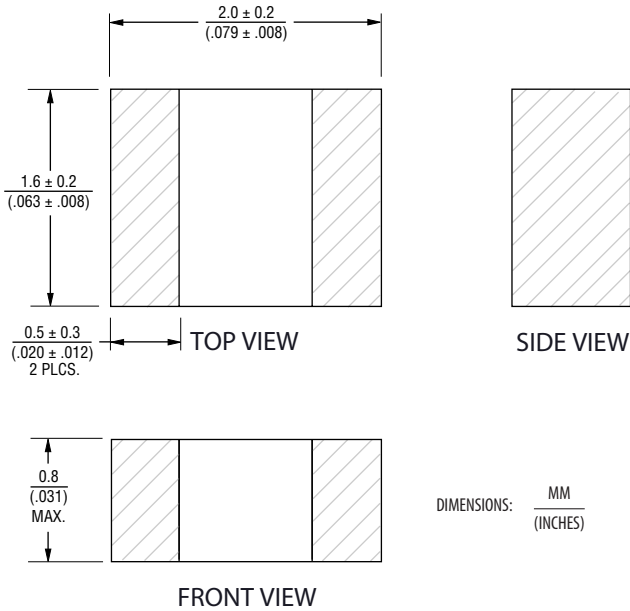
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.

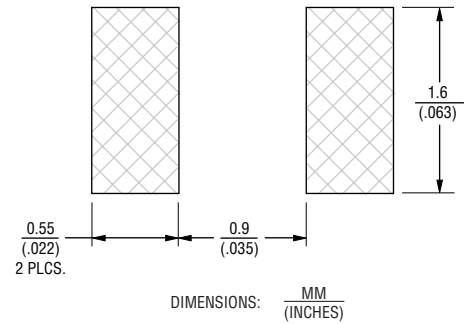
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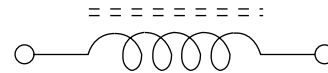
Product Dimensions



Recommended Layout



Electrical Schematic



How to Order

SRP2008DP - R24 M

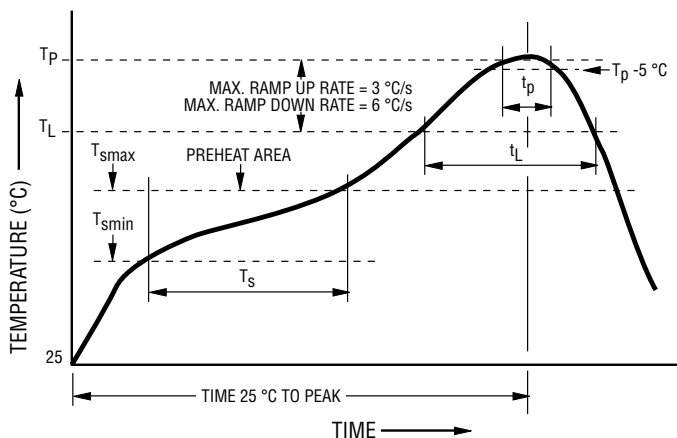
Series _____

Value Code _____

Tolerance _____

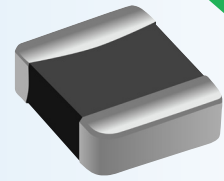
M = ±20 %

Soldering Profile

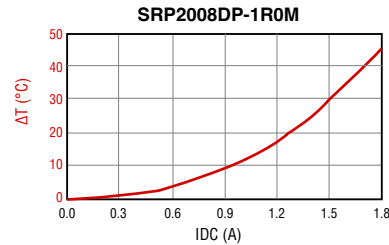
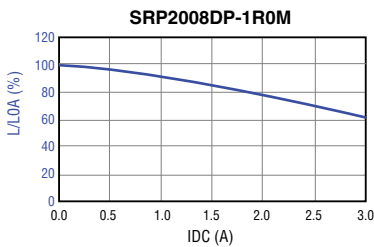
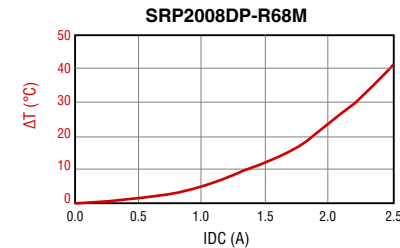
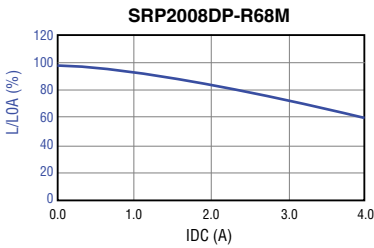
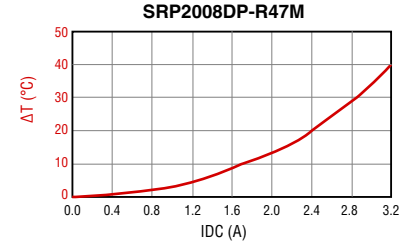
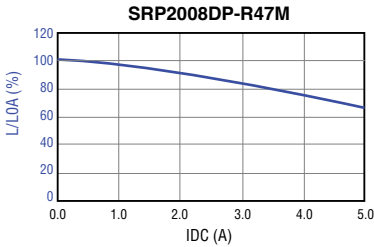
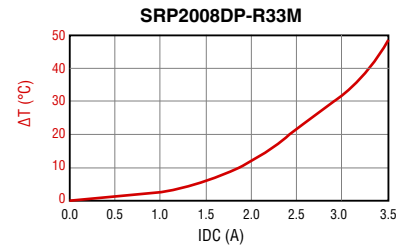
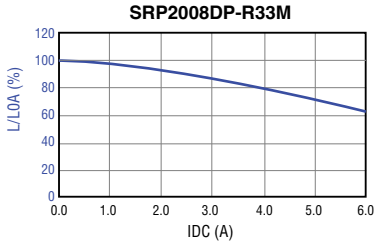
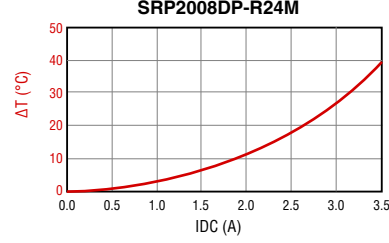
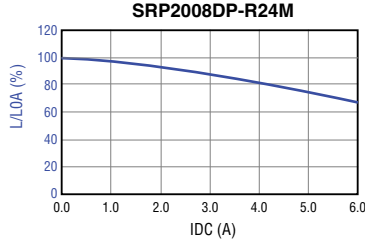


NOTE: The product has been tested under this reflow condition. Deviations from this, especially higher temperatures or longer durations, could impact performance.

Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (t_s) from (T_{smin} to T_{smax})	150 °C 200 °C 60~150 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)	260 °C
Time (t_p) within 5 °C of the 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.

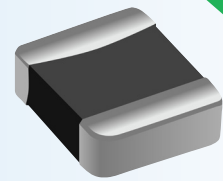


Characteristic Changes vs. IDC

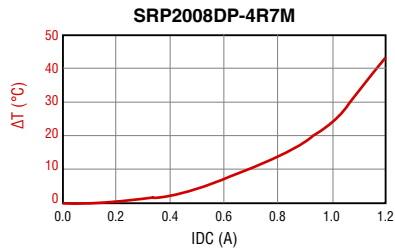
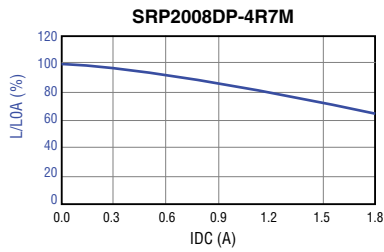
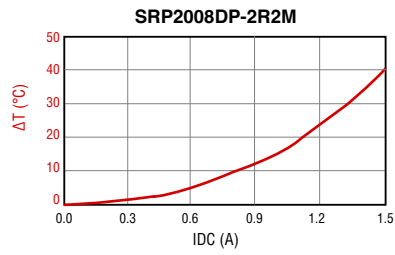
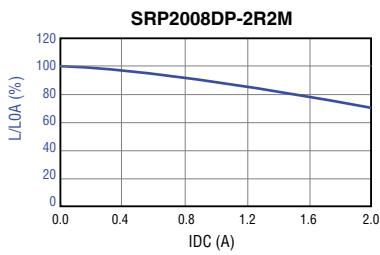
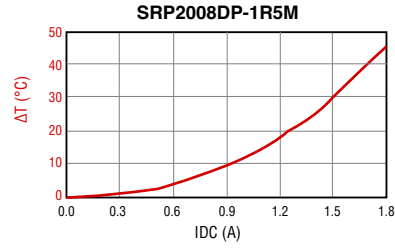
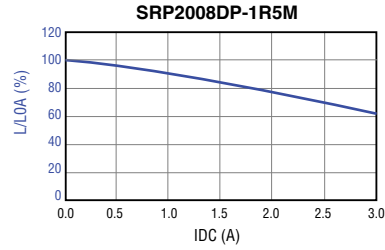


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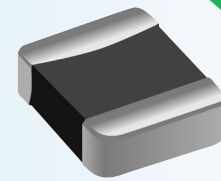


Characteristic Changes vs. IDC (Continued)

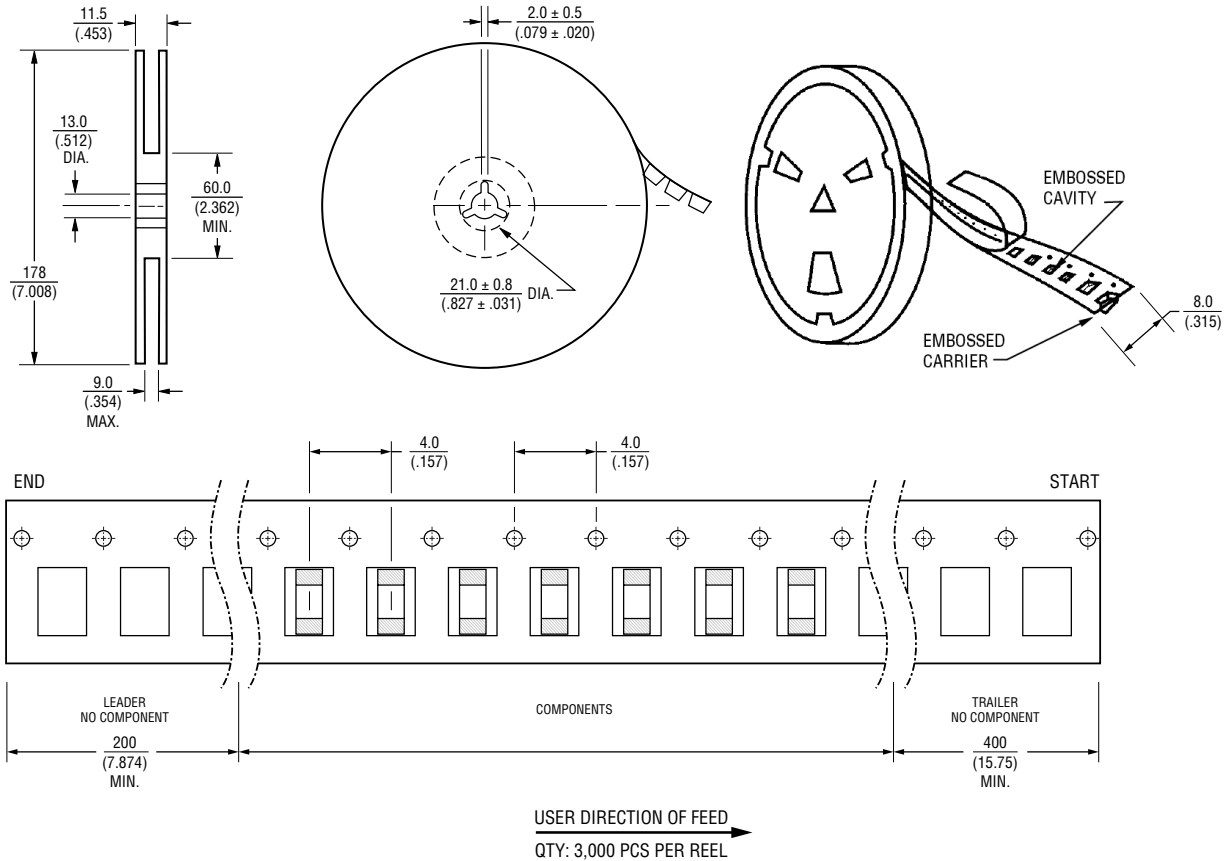


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Packaging Specifications



REV. 03/26

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