



## Features

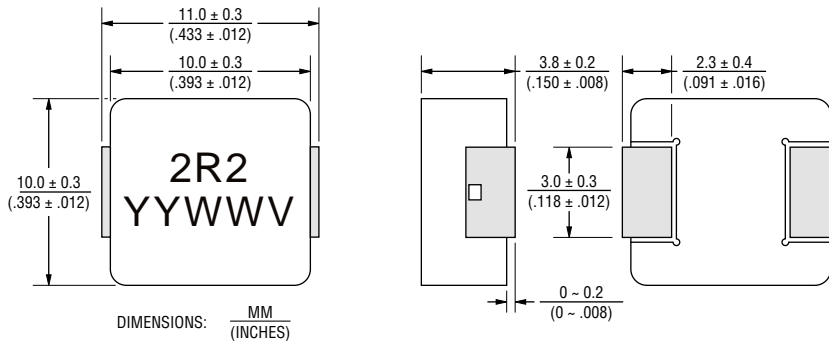
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- High temperature 180 °C
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP1040VA Series – Shielded Power Inductors

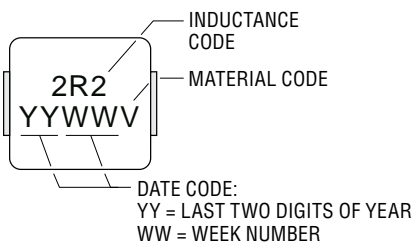
### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Min. @ 100 kHz	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I rms (A) Typ.	I sat (A) Typ.
	L (μH)	Tol. %						
SRP1040VA-1R0M	1.0	± 20 %	15	44	2.8	3.07	27	29
SRP1040VA-1R5M	1.5	± 20 %	15	36	4.2	4.5	22	27
SRP1040VA-2R2M	2.2	± 20 %	15	27	6.5	7.2	18	21
SRP1040VA-3R3M	3.3	± 20 %	15	20	10.2	11.8	15	18
SRP1040VA-4R7M	4.7	± 20 %	15	15	14.3	15.3	13	15
SRP1040VA-5R6M	5.6	± 20 %	15	14	15.5	17.5	12	13
SRP1040VA-6R8M	6.8	± 20 %	15	12	20.2	22.3	10.5	11
SRP1040VA-100M	10	± 20 %	20	10	29.3	33	8	9
SRP1040VA-150M	15	± 20 %	20	9.0	45	50	7	7.6
SRP1040VA-220M	22	± 20 %	20	7.0	64	72	6	6.5
SRP1040VA-330M	33	± 20 %	20	6.0	110	117.7	5	5.3
SRP1040VA-470M	47	± 20 %	20	5.0	145	167	4	4.5
SRP1040VA-680M	68	± 20 %	20	4.0	210	240	3.5	3.5

### Product Dimensions



### Typical Part Marking



### How to Order

**SRP1040VA - 100M**

Model \_\_\_\_\_

Value Code (see table) \_\_\_\_\_

### Additional Information

Click these links for more information:



### General Specifications

Operating Temperature ..... -55 °C to +180 °C  
(Temperature rise included)

Storage Temperature (Component) ..... -55 °C to +180 °C

Rated Current ..... Inductance drops 30 % at Isat

Temperature Rise .... 40 °C at rated Irms<sup>1</sup>

MSL ..... 1

ESD Classification (HBM)..... N/A

Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all can affect the part temperature. Part temperature should be verified in the end application.

### Materials

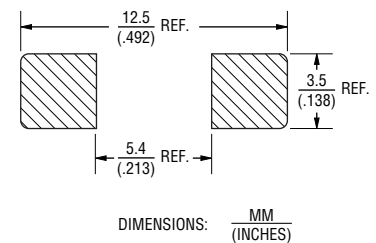
Core ..... Metal alloy powder

Wire ..... Enameled copper

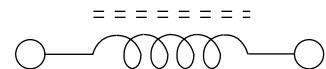
Terminal Finish ..... Sn/Ni

Packaging ..... 500 pcs. per 13-inch reel

### Recommended Layout



### Schematic



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://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.

Specifications are subject to change without notice.

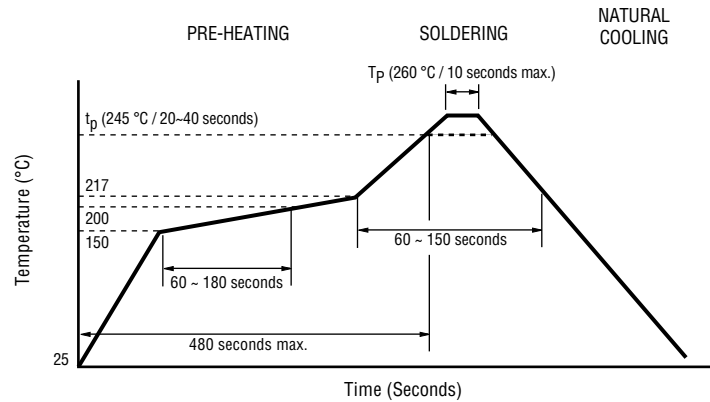
Users should verify actual device performance in their specific applications.

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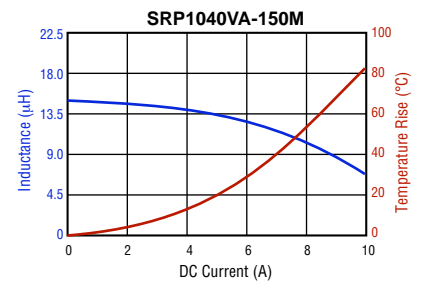
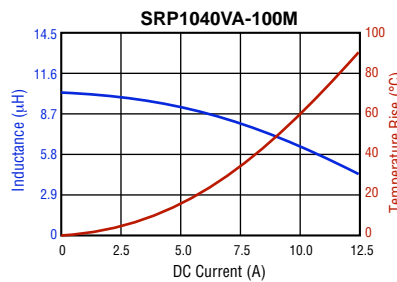
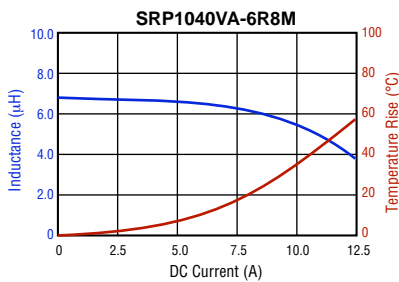
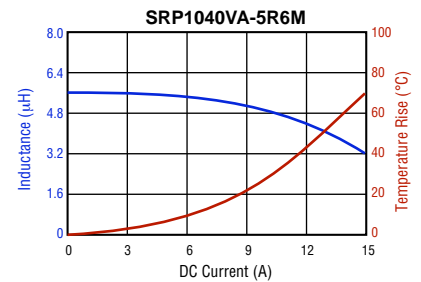
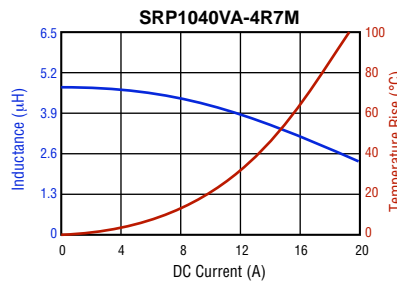
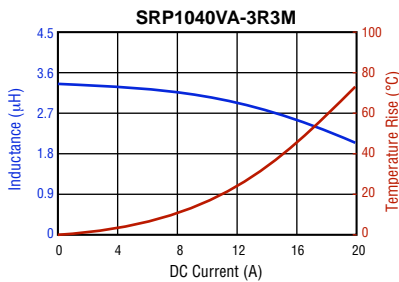
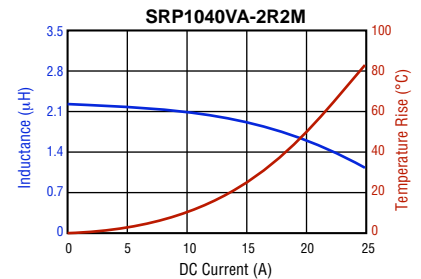
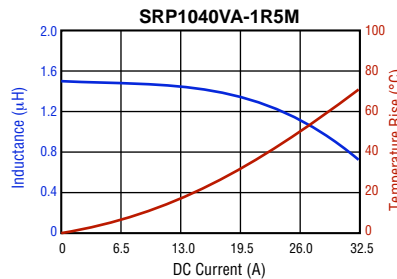
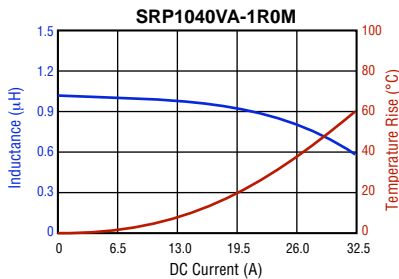
## Soldering Profile



REFLOW TIMES: 3 MAX.

NOTE: 0.12 mm thick solder paste recommended.

## L vs. I Charts



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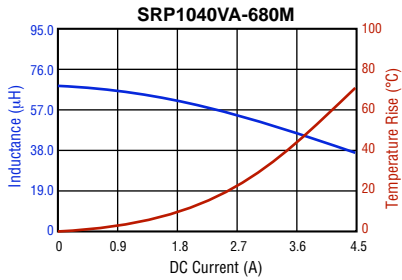
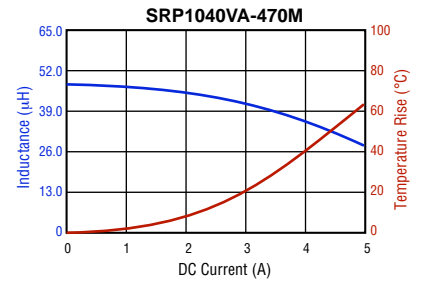
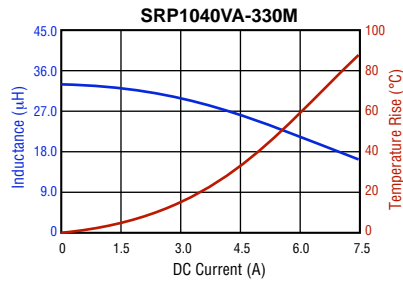
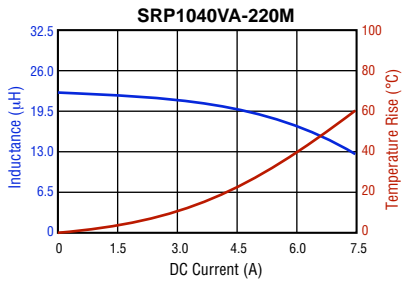
Users should verify actual device performance in their specific applications.

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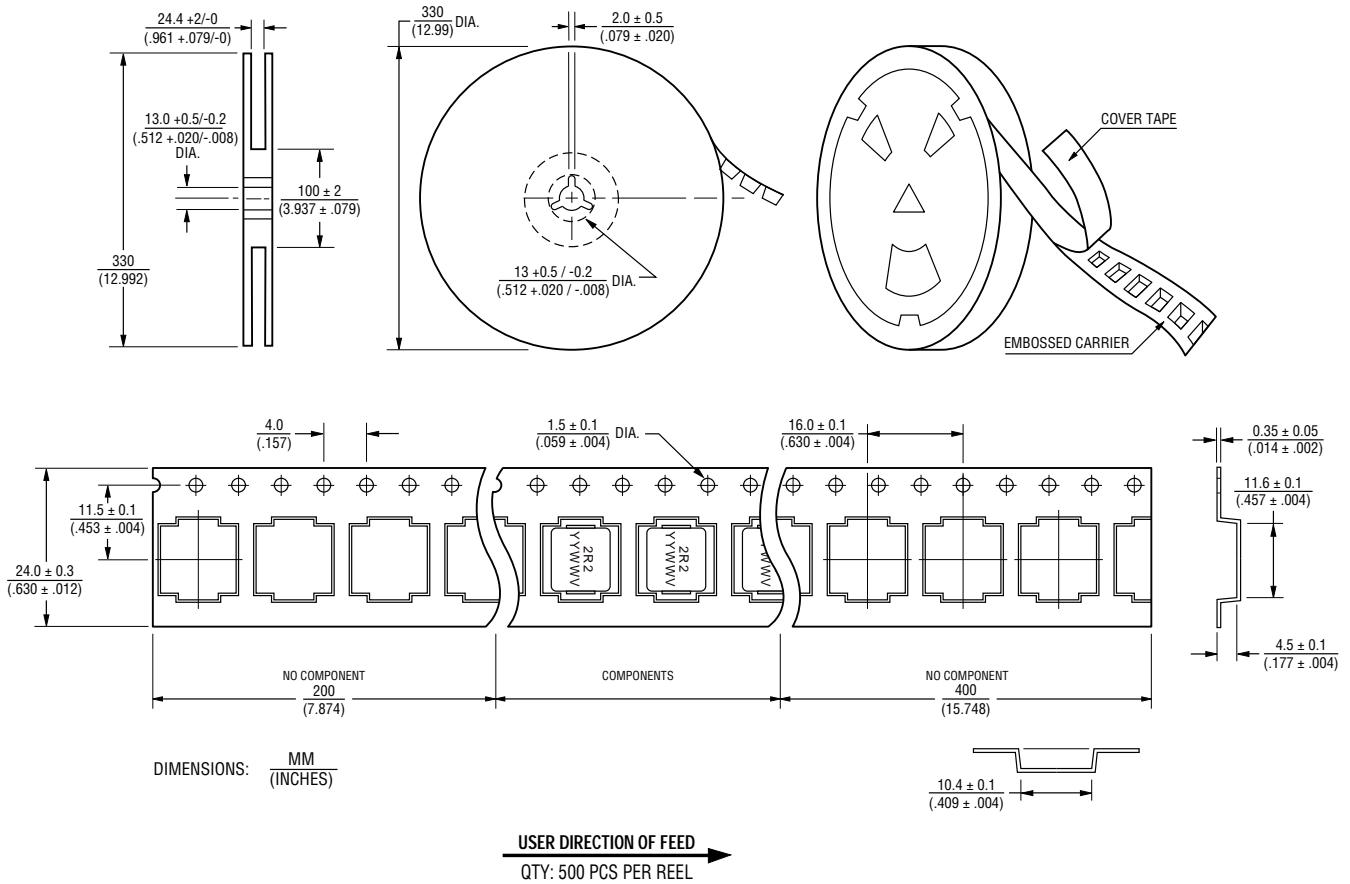
## L vs. I Charts (Continued)



# SRP1040VA Series – Shielded Power Inductors

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## Packaging Specifications



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Asia: Tel: +886-2-2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

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