



**THE DATASHEET OF
SRP4018FA-1R0M**





Features

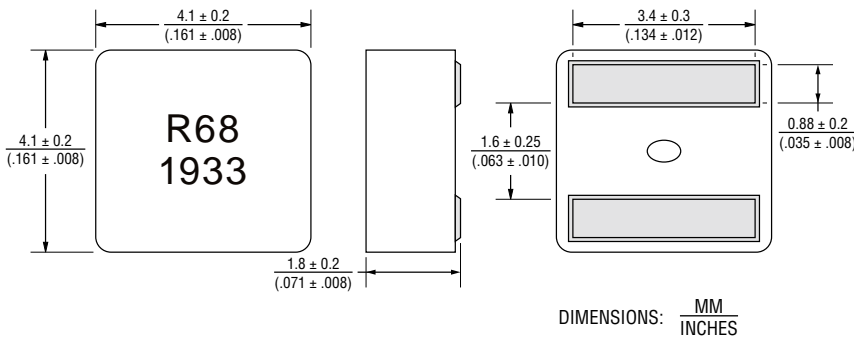
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Flat wire
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP4018FA Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz / 0.1 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. % | | | | | 20 °C Temp. Rise | 40 °C Temp. Rise | 10 % L Drop | 20 % L Drop | 30 % L Drop |
| SRP4018FA-R33M | 0.33 | ± 20 % | 15 | 92 | 4.7 | 5.2 | 11 | 15 | 8.0 | 11.5 | 15 |
| SRP4018FA-R47M | 0.47 | ± 20 % | 15 | 90 | 6.0 | 6.8 | 9.8 | 13.2 | 7.0 | 10.0 | 14 |
| SRP4018FA-R60M | 0.60 | ± 20 % | 15 | 85 | 6.9 | 7.8 | 9.4 | 12.4 | 5.8 | 8.8 | 12.8 |
| SRP4018FA-R68M | 0.68 | ± 20 % | 15 | 73 | 7.3 | 8.2 | 9.2 | 12 | 5.2 | 8.0 | 11.6 |
| SRP4018FA-R82M | 0.82 | ± 20 % | 15 | 62 | 8.6 | 9.5 | 8.5 | 11.5 | 4.8 | 6.5 | 10.2 |
| SRP4018FA-1R0M | 1.00 | ± 20 % | 15 | 56 | 10.6 | 11.7 | 8.0 | 11 | 4.5 | 5.4 | 9.2 |
| SRP4018FA-1R2M | 1.20 | ± 20 % | 15 | 53 | 12.2 | 13.4 | 7.2 | 9.5 | 4.3 | 5.0 | 8.6 |

Product Dimensions



General Specifications

Operating Temperature -55 °C to +155 °C
(Temperature rise included)

Storage Temperature (Component) -55 °C to +155 °C

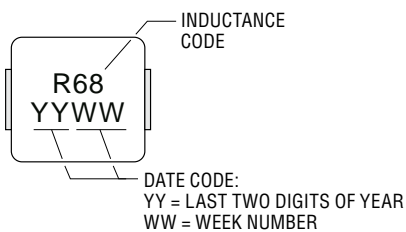
Rated Current
Inductance drops 10, 20 or 30 % at Isat
Temperature Rise 20 or 40 °C at rated Irms¹

MSL 1

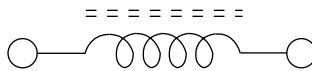
ESD Classification (HBM) N/A

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.

Typical Part Marking



Schematic



How to Order

SRP4018FA - 1R0M

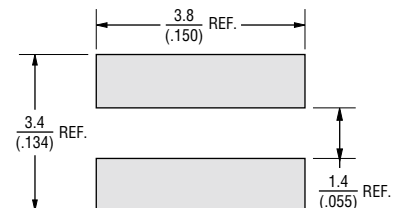
Model _____

Value Code (see table) _____

Materials

Core Metal alloy powder
Wire Enameled copper
Terminal Finish Sn
Packaging 3000 pcs. per 13-inch reel

Recommended Layout



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.

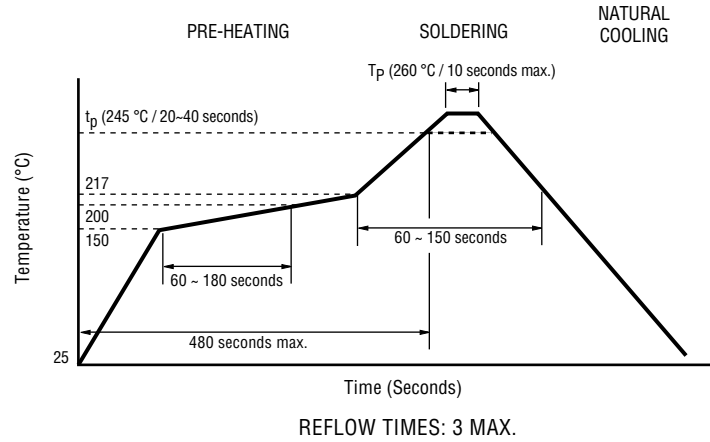
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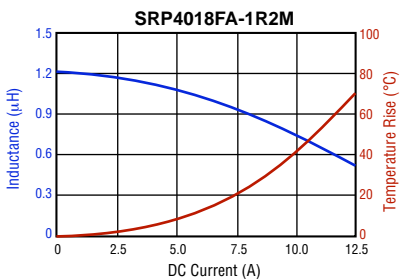
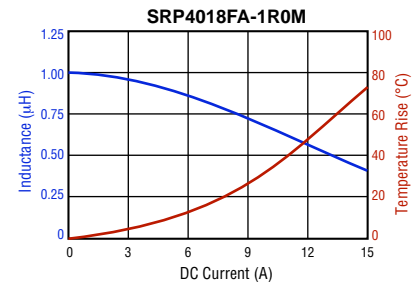
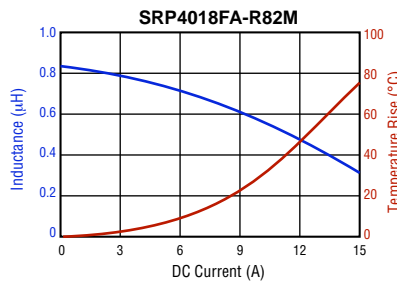
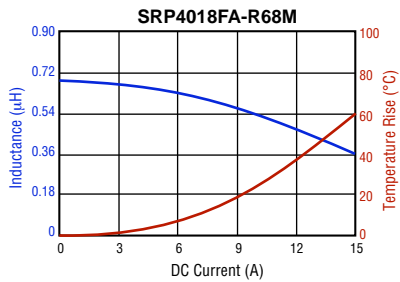
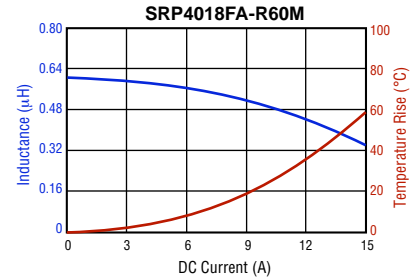
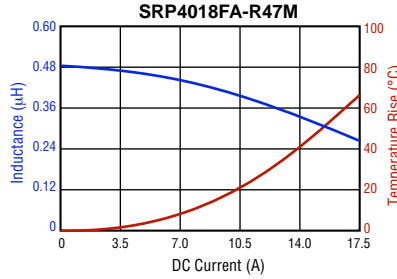
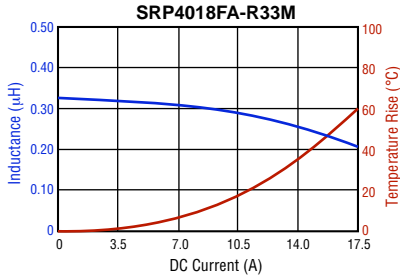
SRP4018FA Series – Shielded Power Inductors



Soldering Profile



L vs. I Charts



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