



Features

- Semi-shielded construction
- Inductance range: 1 to 220 μ H
- Rated current up to 3.7 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

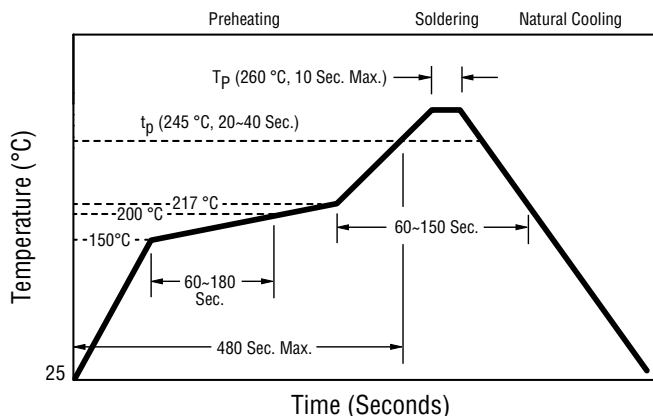
- Automotive systems:
 - Driver assistant
 - Infotainment
 - Lighting
- DC/DC converters
- Power supplies
- Digital video cameras
- HDDs
- Smartphones
- Televisions, LCD displays

SRN4018TA Series - Semi-shielded Power Inductors

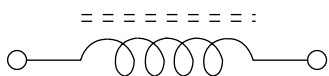
Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		SRF (MHz) Typ.	DCR (Ω) ± 20 %	Irms (A) Typ.	Isat (A) Typ.
	L (μ H)	Tol. %				
SRN4018TA-1R0M	1.0	± 20	160	0.027	3.7	4
SRN4018TA-1R2M	1.2	± 20	150	0.028	3.5	3.6
SRN4018TA-1R5M	1.5	± 20	110	0.032	3.3	3.3
SRN4018TA-2R2M	2.2	± 20	70	0.042	2.9	3
SRN4018TA-3R3M	3.3	± 20	60	0.055	2.3	2.3
SRN4018TA-4R7M	4.7	± 20	50	0.07	2	2
SRN4018TA-6R8M	6.8	± 20	40	0.098	1.7	1.7
SRN4018TA-100M	10	± 20	35	0.15	1.5	1.5
SRN4018TA-150M	15	± 20	25	0.19	1.1	1.1
SRN4018TA-220M	22	± 20	20	0.29	0.9	0.9
SRN4018TA-330M	33	± 20	12	0.405	0.75	0.75
SRN4018TA-470M	47	± 20	10	0.55	0.6	0.6
SRN4018TA-680M	68	± 20	10	0.89	0.55	0.55
SRN4018TA-101M	100	± 20	8	1.38	0.45	0.45
SRN4018TA-151M	150	± 20	5	1.97	0.35	0.35
SRN4018TA-221M	220	± 20	5	3	0.3	0.3

Soldering Profile



Electrical Schematic



How to Order

Model SRN4018TA - 100M
Value Code (see table) _____

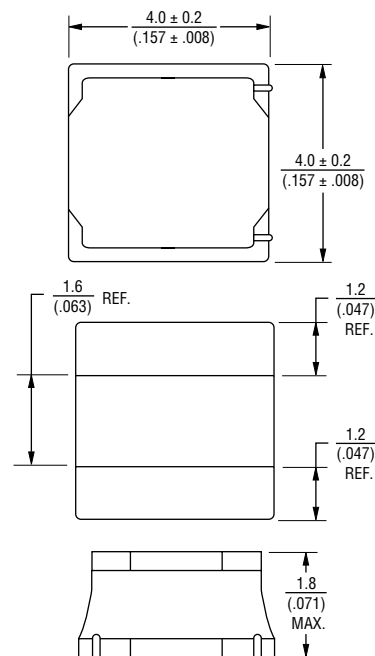
General Specifications

Operating Temperature -55 °C to +125 °C
(Temperature rise included)
Storage Temperature .. -55 °C to +125 °C
Temperature Rise 40 °C at rated Irms
Rated Current Inductance drops 30 % at Isat
Failure In Time (FIT) 24.7/10⁹ hours
Mean Time Between Failures (MTBF) 40.4 x 10⁶ hours

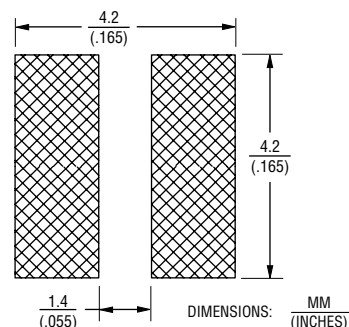
Materials

Core Ferrite
Wire Enameled copper
Terminal Finish Sn
Coating Magnetic epoxy resin
Packaging 3000 pcs. per 13-inch reel

Product Dimensions



Recommended Layout



*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

**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.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

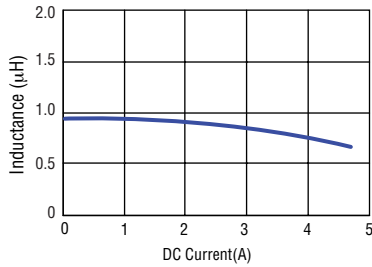
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SRN4018TA Series - Semi-shielded Power Inductors

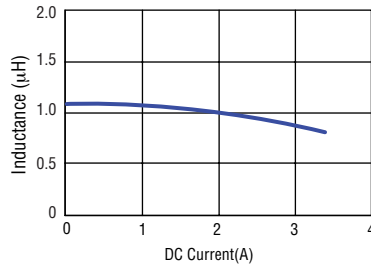
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Inductance vs. Current

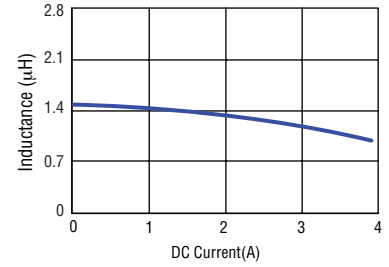
SRN4018TA-1R0M



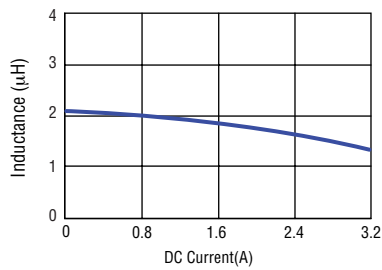
SRN4018TA-1R2M



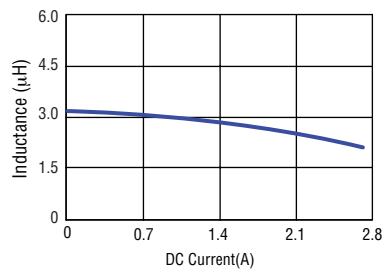
SRN4018TA-1R5M



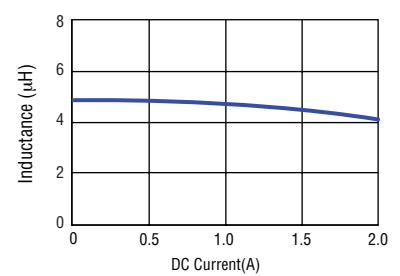
SRN4018TA-2R2M



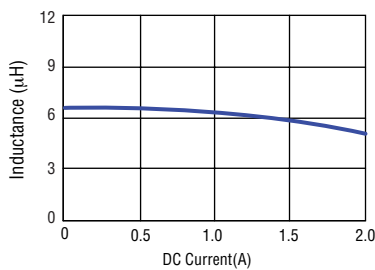
SRN4018TA-3R3M



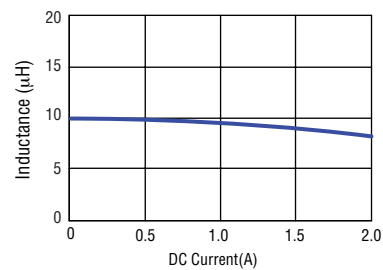
SRN4018TA-4R7M



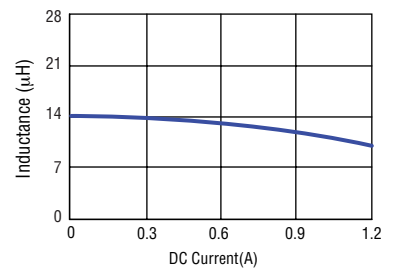
SRN4018TA-6R8M



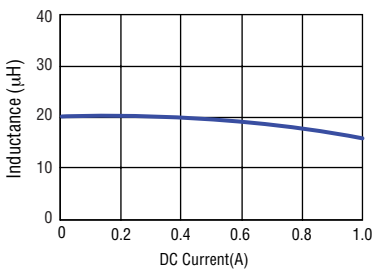
SRN4018TA-100M



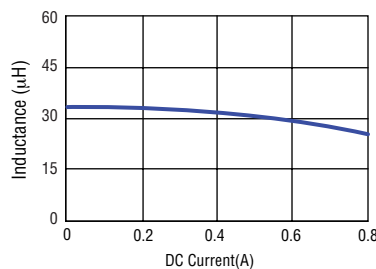
SRN4018TA-150M



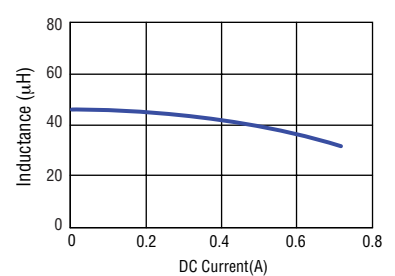
SRN4018TA-220M



SRN4018TA-330M



SRN4018TA-470M



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The figure contains four sub-graphs, each showing the inductance of a different SRN4018TA component as a function of DC current. All graphs show a decreasing trend in inductance as current increases.

- SRN4018TA-680M:** The y-axis (Inductance in μH) ranges from 0 to 120. The x-axis (DC Current in A) ranges from 0 to 0.60. The inductance starts at approximately 65 μH at 0 A and decreases to about 45 μH at 0.60 A.
- SRN4018TA-101M:** The y-axis (Inductance in μH) ranges from 0 to 200. The x-axis (DC Current in A) ranges from 0 to 0.5. The inductance starts at approximately 95 μH at 0 A and decreases to about 65 μH at 0.5 A.
- SRN4018TA-151M:** The y-axis (Inductance in μH) ranges from 0 to 280. The x-axis (DC Current in A) ranges from 0 to 0.4. The inductance starts at approximately 140 μH at 0 A and decreases to about 100 μH at 0.4 A.
- SRN4018TA-221M:** The y-axis (Inductance in μH) ranges from 0 to 400. The x-axis (DC Current in A) ranges from 0 to 0.4. The inductance starts at approximately 190 μH at 0 A and decreases to about 140 μH at 0.4 A.

Technical drawing of a 3D printed part, showing top, front, and bottom views with dimensions in millimeters (MM) and inches (INCHES).

Top View:

- Overall diameter: 12 ± 1.5 (4.72 ± .059)
- Inner circular feature with a central hole.
- Radial features with dimensions: 2.0 ± 0.5 (.079 ± .020), 13.5 ± 0.5 (.531 ± .020), $R 1.9$ (.075), $R 10.5$ (.413), $R 0.5$ (.020).
- Angle: 120°

Front View:

- Overall height: 330 ± 0.5 (12.992 ± .020)
- Top flange thickness: 12 ± 1.5 (4.72 ± .059)
- Internal feature height: 100 ± 0.5 (3.937 ± .020)
- Bottom flange thickness: 13.2 ± 0.5 (.520 ± .020)

Bottom View:

- Overall width: 8.0 ± 0.10 (.315 ± .004)
- Overall height: 12.0 ± 0.10 (.472 ± .004)
- Top flange thickness: 1.75 ± 0.10 (.069 ± .004)
- Internal feature height: 5.50 ± 0.05 (.217 ± .002)
- Bottom flange thickness: 4.00 ± 0.10 (.157 ± .004)
- Top flange width: 2.00 ± 0.05 (.079 ± .002)
- Internal feature width: 1.50 ± 0.10 (.059 ± .004) DIA.
- Bottom flange width: 1.50 ± 0.10 (.059 ± .004) DIA.
- Bottom flange thickness: 4.50 ± 0.10 (.177 ± .004)
- Angle: 8°

Side View:

- Top flange thickness: 0.25 ± 0.05 (.010 ± .002)
- Internal feature height: 4.35 ± 0.10 (.171 ± .004)
- Bottom flange thickness: 1.90 ± 0.10 (.075 ± .004)
- Angle: 5°

USER DIRECTION OF FEED

QTY: 2000 PCS. PER REF.

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