



Features

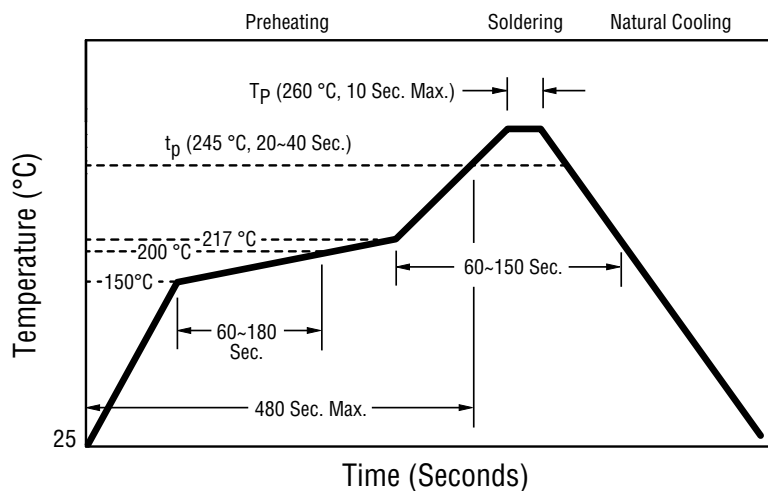
- Semi-shielded construction
- Inductance range: 0.47 to 22 μ H
- Rated current up to 3.2 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRN4012TA Series - Semi-shielded Power Inductors

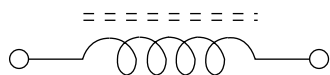
Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q (Min.) @ 100 kHz	SRF (MHz) Typ.	DCR (Ω) ± 20 %	I _{rms} (A)	I _{sat} (A)
	L (μ H)	Tol. %					
SRN4012TA-R47M	0.47	± 20	6	140	0.025	3.2	4
SRN4012TA-1R0M	1.0	± 20	6	100	0.042	2.2	2.8
SRN4012TA-1R5M	1.5	± 20	6	90	0.05	2	2.2
SRN4012TA-2R2M	2.2	± 20	6	70	0.06	1.9	1.65
SRN4012TA-3R3M	3.3	± 20	6	60	0.07	1.7	1.4
SRN4012TA-4R7M	4.7	± 20	6	45	0.095	1.5	1.2
SRN4012TA-5R6M	5.6	± 20	6	40	0.12	1.4	1.1
SRN4012TA-6R8M	6.8	± 20	6	35	0.125	1.3	0.9
SRN4012TA-100M	10	± 20	10	30	0.18	1.1	0.8
SRN4012TA-150M	15	± 20	10	24	0.26	0.75	0.65
SRN4012TA-220M	22	± 20	10	18	0.4	0.62	0.5

Soldering Profile



Electrical Schematic



How to Order

Model SRN4012TA - 100M
Value Code (see table) _____

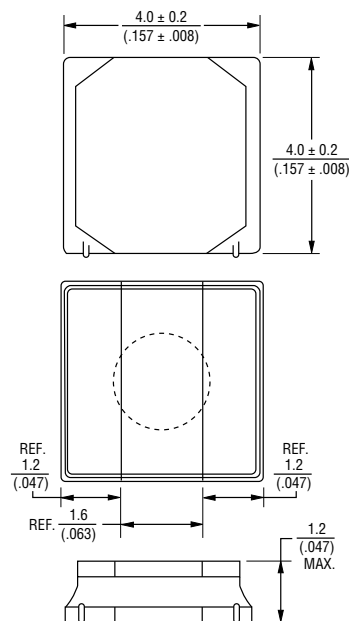
General Specifications

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

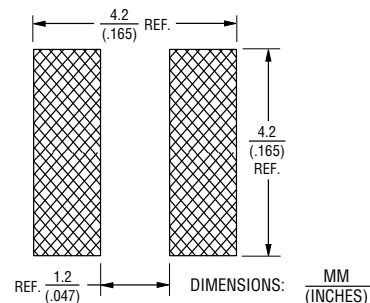
Materials

Core Ferrite
Wire Enameled copper
Terminal Finish Sn
Coating Magnetic epoxy resin
Packaging 4500 pcs. per 13-inch reel

Product Dimensions



Recommended Layout



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

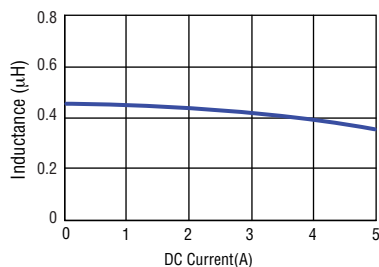
* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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SRN4012TA Series - Semi-shielded Power Inductors

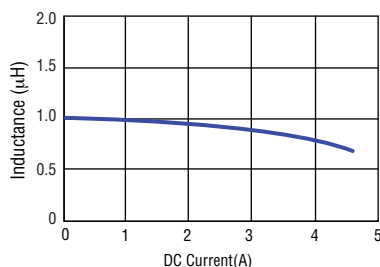
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Inductance vs. Current

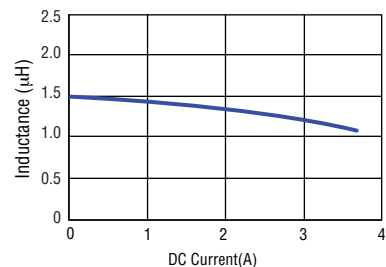
SRN4012TA-R47M



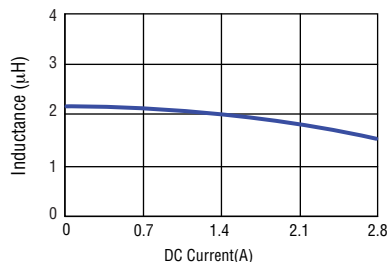
SRN4012TA-1R0M



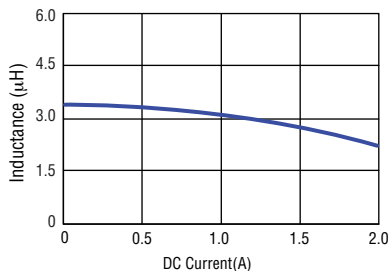
SRN4012TA-1R5M



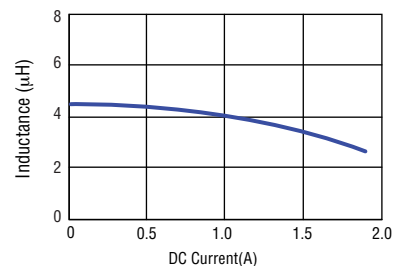
SRN4012TA-2R2M



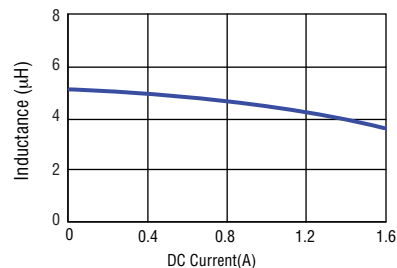
SRN4012TA-3R3M



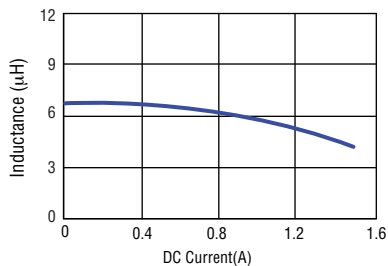
SRN4012TA-4R7M



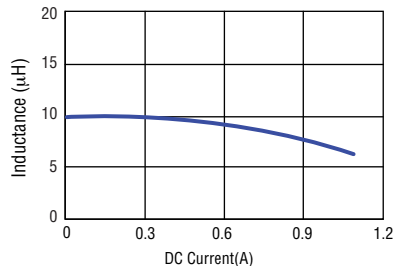
SRN4012TA-5R6M



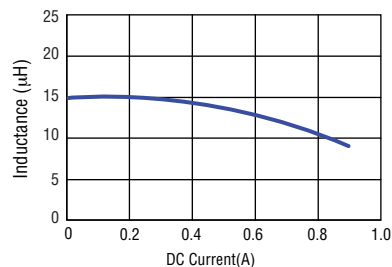
SRN4012TA-6R8M



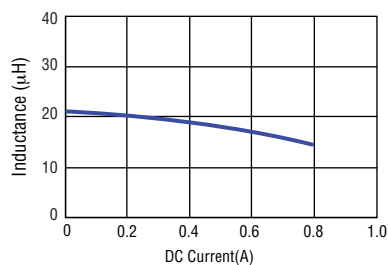
SRN4012TA-100M



SRN4012TA-150M



SRN4012TA-220M



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The figure contains three graphs, each showing the relationship between DC Current (A) on the x-axis, Inductance (μH) on the left y-axis (blue line), and Temperature Rise (°C) on the right y-axis (red line).

- SRP4012TA-6R8M:** The x-axis ranges from 0 to 1.900 A. Inductance starts at approximately 6.8 μH and decreases to about 5.5 μH at 1.900 A. Temperature rise starts at 0°C and increases to approximately 45°C at 1.900 A.
- SRP4012TA-8R2M:** The x-axis ranges from 0 to 1.80 A. Inductance starts at approximately 8.5 μH and decreases to about 6.5 μH at 1.80 A. Temperature rise starts at 0°C and increases to approximately 40°C at 1.80 A.
- SRP4012TA-100M:** The x-axis ranges from 0 to 1.5 A. Inductance starts at approximately 10.5 μH and decreases to about 8.5 μH at 1.5 A. Temperature rise starts at 0°C and increases to approximately 30°C at 1.5 A.

A circuit diagram showing a rectangular loop with a rounded bottom. A horizontal wire segment in the center of the loop contains an inductor, represented by four connected loops. The left end of this segment is a small open circle, and the right end is another small open circle. The top and bottom horizontal segments of the loop are solid lines, while the left and right vertical segments are also solid lines, forming a closed rectangular path.

330
(12.99) DIA.

2.0 ± 0.5
(.079 ± .020)

13.5 ± 0.5
(.531 ± .020) DIA.

100.0 ± 2.0
(3.937 ± .079)

12.0 ± 0.5
(.472 ± .020)

THICKNESS
0.10
(.004)
MAX.

EMBOSS CAVITY

EMBOSS CARRIER

1.75
(.069)

4.0
(.157)

2.0
(.079)

1.5 DIA.
(.059)

0.35 ± 0.05
(.014 ± .002)

5.0 ± 0.1
(.197 ± .004)

12.0 ± 0.3
(.472 ± .012)

5.5 ± 0.1
(.217 ± .004)

8.0 ± 0.1
(.315 ± .004)

3°

1.5 ± 0.1
(.059 ± .004)

4.5 ± 0.1
(.177 ± .004)

USER DIRECTION OF FEED

QTY: 4000 PCS. PER REEL

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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