



Features

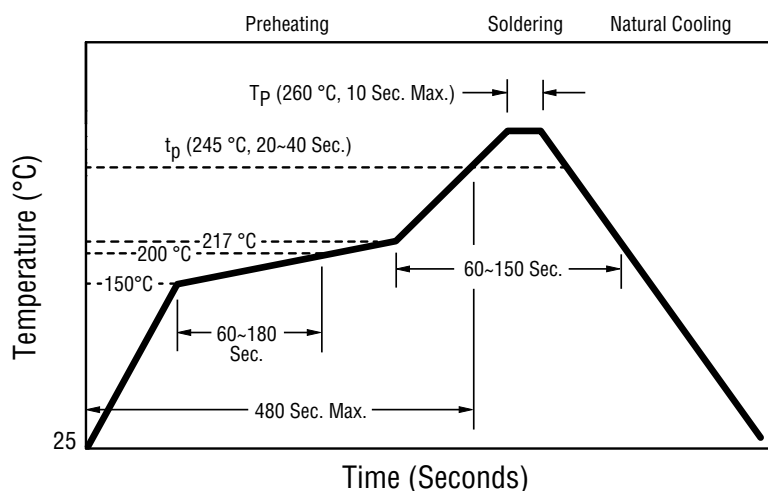
- Semi-shielded construction
- Inductance range: 0.47 to 22 μ H
- Rated current up to 3.2 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRN4012TA Series - Semi-shielded Power Inductors

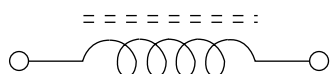
Electrical Specifications @ 25 °C

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

SRN4012TA - 100M

Model _____

Value Code (see table) _____



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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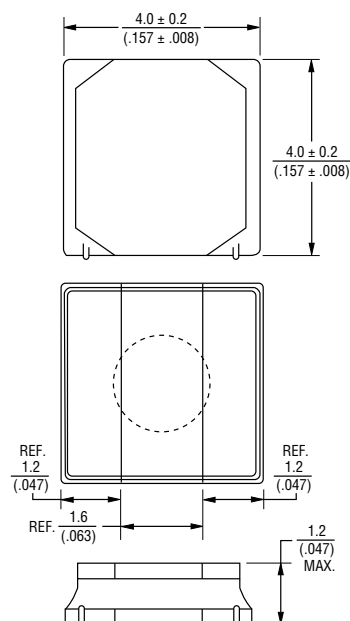
General Specifications

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

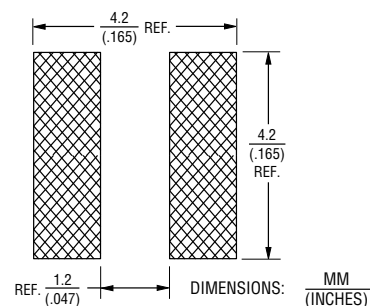
Materials

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

Product Dimensions



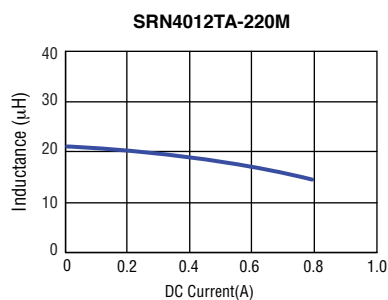
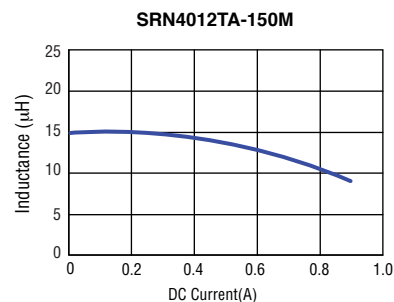
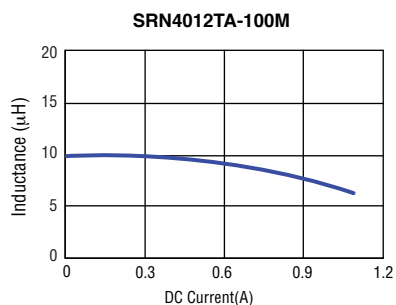
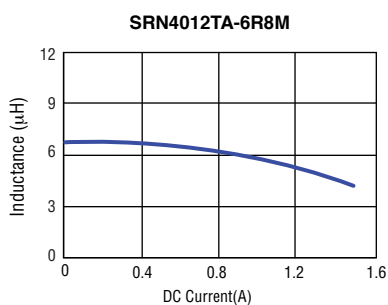
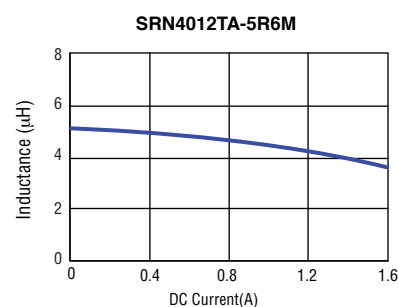
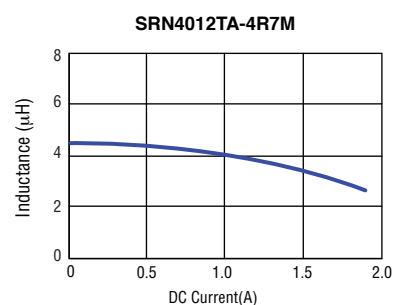
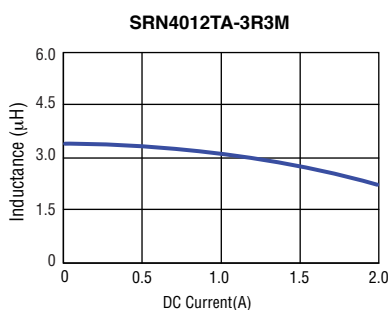
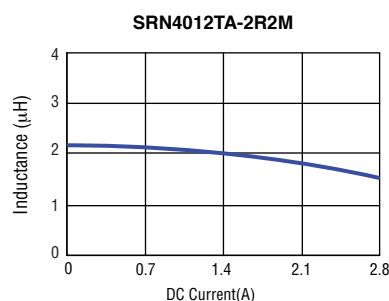
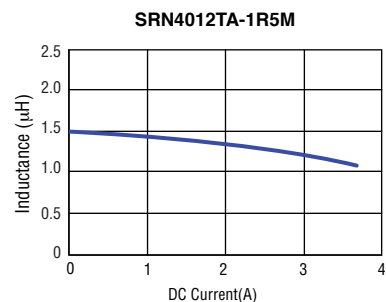
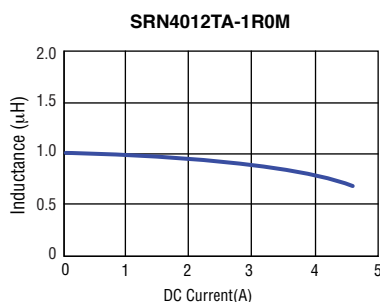
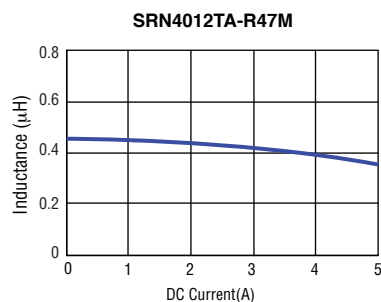
Recommended Layout



SRN4012TA Series - Semi-shielded Power Inductors

BOURNS®

Inductance vs. Current



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Users should verify actual device performance in their specific applications.

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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.

Technical drawing of a 12.0mm diameter metal reel with embossed markings. The drawing includes a top view, a side view, and a detailed view of the embossed carrier. Dimensions are given in both millimeters and inches.

Top View Dimensions:

- Overall Diameter: 12.0 ± 0.3 (12.99) DIA.
- Inner Hole Diameter: 2.0 ± 0.5 (0.79 $\pm$.020)
- Marking Area Diameter: 13.5 ± 0.5 (5.31 $\pm$.020) DIA.
- Marking Area Thickness: 13.5 ± 0.5 (5.31 $\pm$.020) DIA.
- Marking Area Width: 100.0 ± 2.0 (3.937 $\pm$.079)
- Marking Area Height: 12.0 ± 0.5 (4.72 $\pm$.020)

Side View Dimensions:

- Thickness: 0.10 (.004) MAX.
- Embossed Carrier: 1.5 ± 0.1 (.059 $\pm$.004)
- Embossed Cavity: 1.5 ± 0.1 (.059 $\pm$.004)

Marking Area Dimensions:

- Marking Area Width: 8.0 ± 0.1 (.315 $\pm$.004)
- Marking Area Height: 1.5 ± 0.1 (.059 $\pm$.004)
- Marking Area Thickness: 1.5 ± 0.1 (.059 $\pm$.004)
- Marking Area Angle: 3°

Other Dimensions:

- Marking Area Diameter: 1.5 (.059) DIA.
- Marking Area Thickness: 1.75 (.069)
- Marking Area Width: 4.0 (.157)
- Marking Area Height: 5.5 ± 0.1 (.217 $\pm$.004)
- Marking Area Thickness: 0.35 ± 0.05 (.014 $\pm$.002)
- Marking Area Width: 5.0 ± 0.1 (.197 $\pm$.004)

USER DIRECTION OF FEED

QTY: 4000 PCS. PER REEL

DIMENSIONS: MM (INCHES)

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Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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REV. 09/17

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- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
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- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru