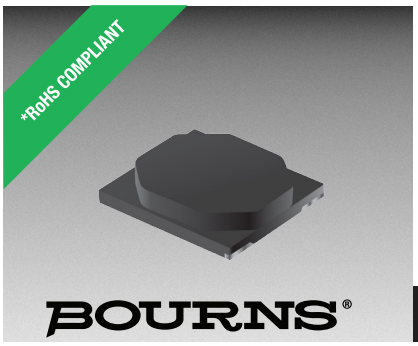


Features

- Semi-shielded construction
- Low profile: 1.2 mm
- Inductance range: 0.47 to 22 µH
- Rated current up to 3.2 A
- RoHS compliant* and halogen free**

Applications

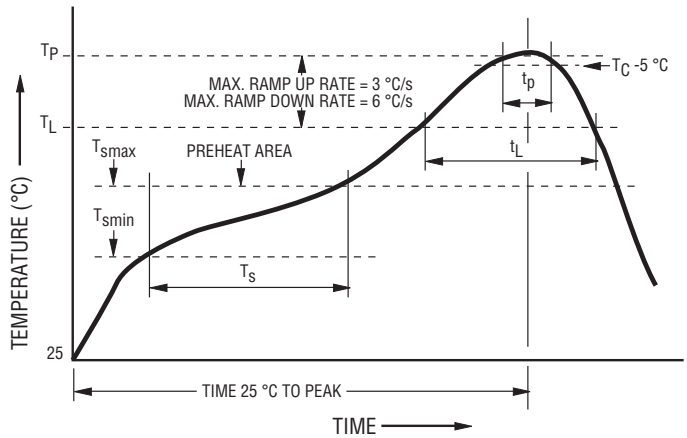
- DC-DC converters
- Notebook computers
- Digital video cameras
- HDDs
- Cellphones
- Televisions, LCD displays

SRN4012T Series - Semi-shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 KHz / 1 V		Q (Min.) @ 100 kHz / 1 V	SRF (MHz) Typ.	DCR (Ω) ±20 %	Irms (A)	Isat (A)
	L (µH)	Tol. %					
SRN4012T-R47M	0.47	± 20	6	140	0.025	3.2	4
SRN4012T-1R0M	1.0	± 20	6	100	0.042	2.2	2.8
SRN4012T-1R5M	1.5	± 20	6	90	0.05	2	2.2
SRN4012T-2R2M	2.2	± 20	6	70	0.06	1.9	1.65
SRN4012T-3R3M	3.3	± 20	6	60	0.07	1.7	1.4
SRN4012T-4R7M	4.7	± 20	6	45	0.095	1.5	1.2
SRN4012T-6R8M	6.8	± 20	6	35	0.125	1.3	0.9
SRN4012T-100M	10	± 20	10	30	0.18	1.1	0.8
SRN4012T-150M	15	± 20	10	24	0.26	0.75	0.65
SRN4012T-220M	22	± 20	10	18	0.4	0.62	0.5

Soldering Profile



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (t_s) from (T_{smin} to T_{smax})	 150 °C 200 °C 60~120 seconds
Ramp Up Rate (T_L to T_p)	3 °C / second max.
Liquidous Temperature (T_L) Time (t_L) maintained above T_L	217 °C 60~150 seconds
Classification Temperature (T_c)	260 °C
Time (t_p) within 5 °C of the specified classification temperature (T_c)	< 30 seconds
Ramp Down Rate (T_p to T_L)	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

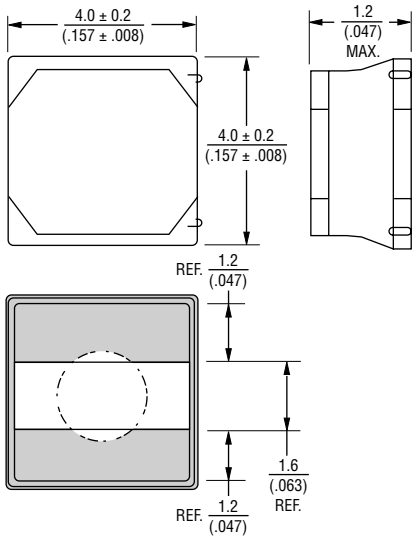
General Specifications

Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature .. -40 °C to +125 °C
Temperature Rise .....40 °C at rated Irms
Rated Current
..... Inductance drops 30 % at Isat

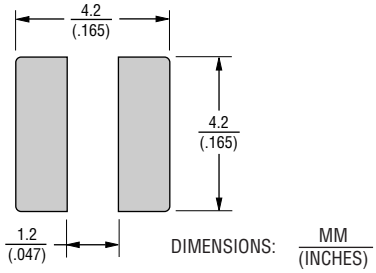
Materials

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

Product Dimensions



Recommended Layout



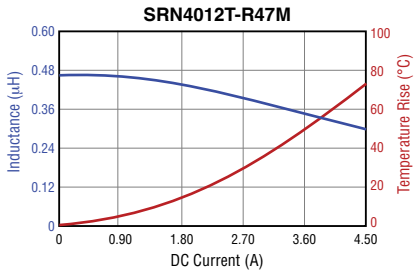
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

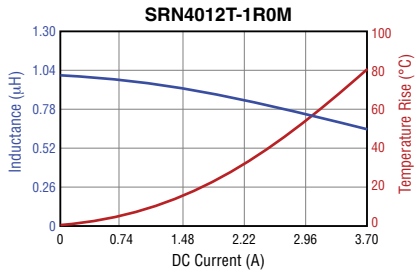
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

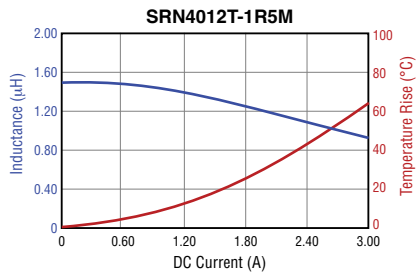
**Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less. Specifications are subject to change without notice.

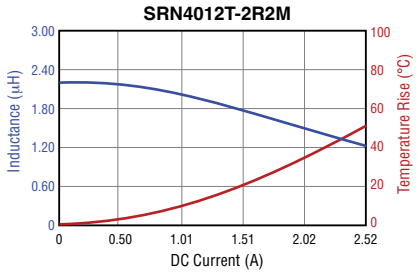
Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

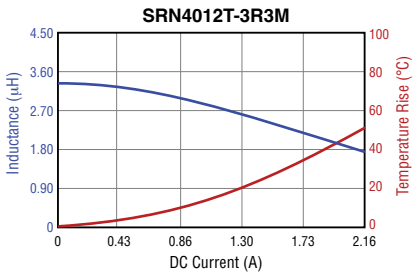
L vs. IDC

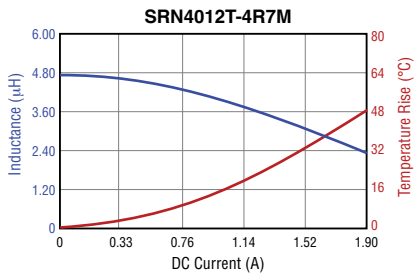


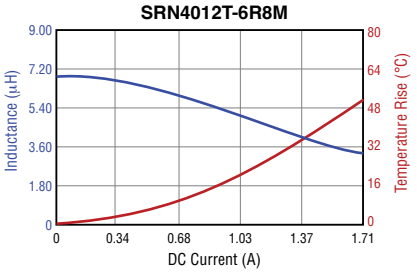


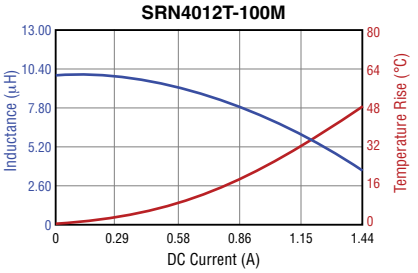


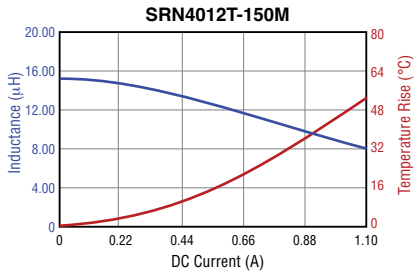


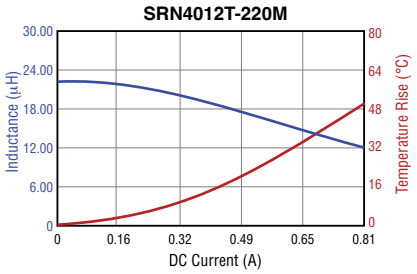




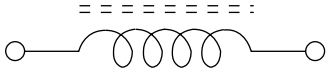








Electrical Schematic



How to Order

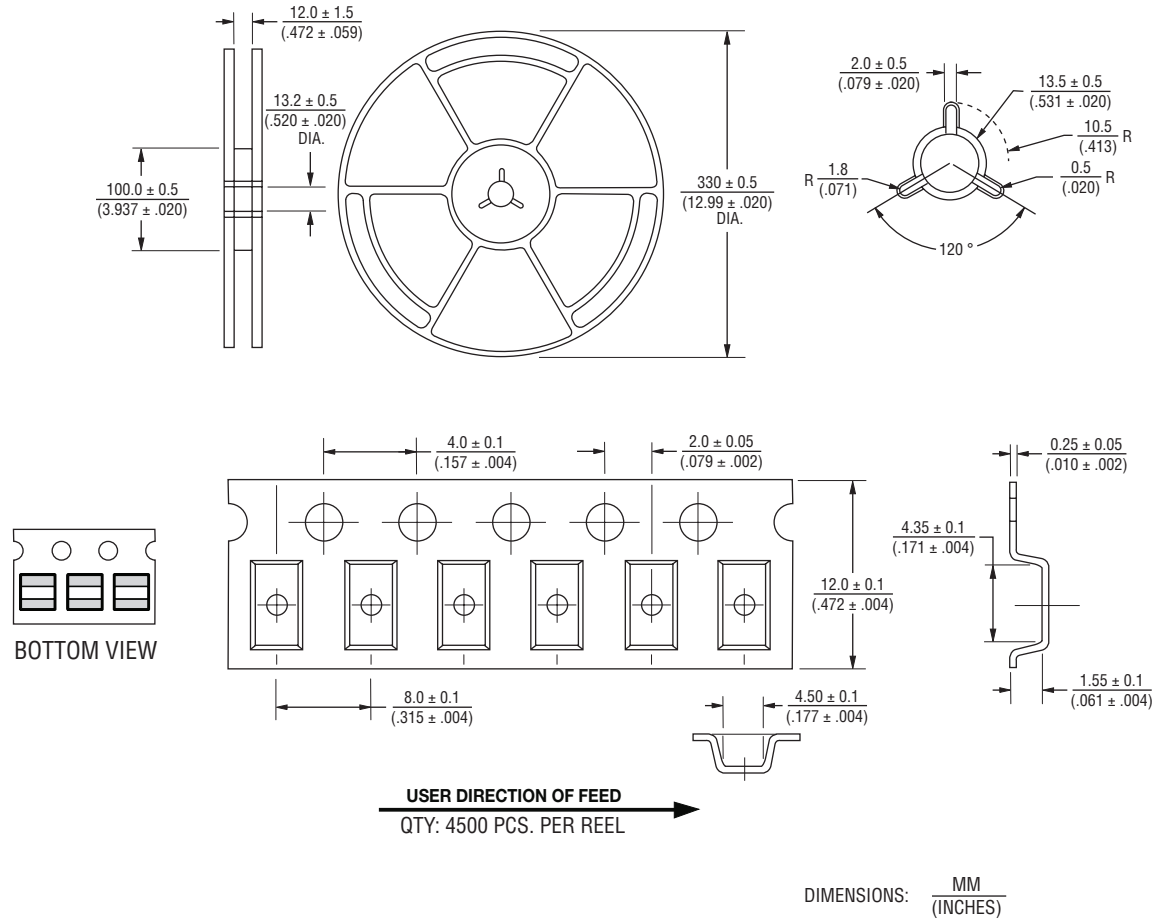
SRN4012T - R47M

Model

Value Code (see table)

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Packaging Specifications



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