

Features

- Shielded construction – low radiation
- Carbonyl iron powder core
- High saturation current
- Low buzz noise
- Inductance range: 0.47 to 10 µH
- Rated current up to 11 A
- RoHS compliant* and halogen free**

Applications

- Power supplies
- Consumer electronics

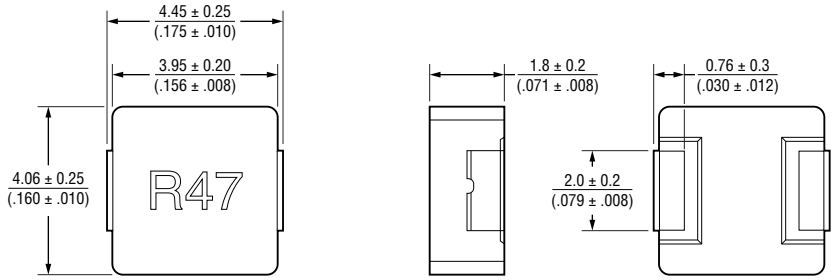
BOURNS®

SRP4020T Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 KHz / 1 V		Q 100 MHz	SRF (MHz)	DCR (mΩ)		Irms (A)	Isat (A)
	L (µH)	Tol. (%)	Min.	Typ.	Typ.	Max	Typ.	Typ.
SRP4020T-R47M	0.47	±20	10	105	8.0	8.6	11.0	16.0
SRP4020T-R68M	0.68		15	83	11	12.7	9.5	11.0
SRP4020T-1R0M	1.0		15	72	15.5	18.5	7.7	10.6
SRP4020T-1R5M	1.5		15	55	25	28.8	6.5	9.0
SRP4020T-2R2M	2.2		15	40	33	37.9	5.8	8.5
SRP4020T-3R3M	3.3		15	38	60	69	4.5	6.0
SRP4020T-4R7M	4.7		15	28	72	83.5	4.0	4.6
SRP4020T-6R8M	6.8		15	22	106	117	3.2	3.8
SRP4020T-100M	10.0		15	20	170	199	2.6	3.0

Product Dimensions



DIMENSIONS: MM (INCHES)

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

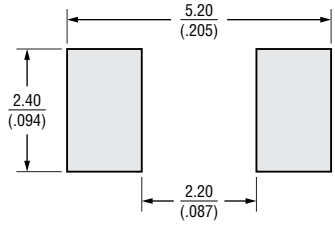
General Specifications

Operating Temperature
..... -40 °C to +150 °C
Storage Temperature
..... -40 °C to +150 °C
Temperature Rise .....40 °C at rated Irms
Rated Current
..... Inductance drops 30 % at Isat
Moisture Sensitivity Level.....1
ESD Classification (HBM).....N/A

Materials

Core.....Carbonyl core powder
Wire .....Enameled copper
Terminal Finish ..... Cu/Ni/Sn
Packaging..... 3,000 pcs. per 13-inch reel

Recommended Layout



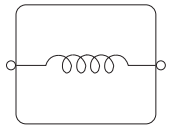
DIMENSIONS: MM (INCHES)

How to Order

SRP4020T - R47 M

Model
Value Code (see table)
Tolerance
M = ±20 %

Electrical Schematic



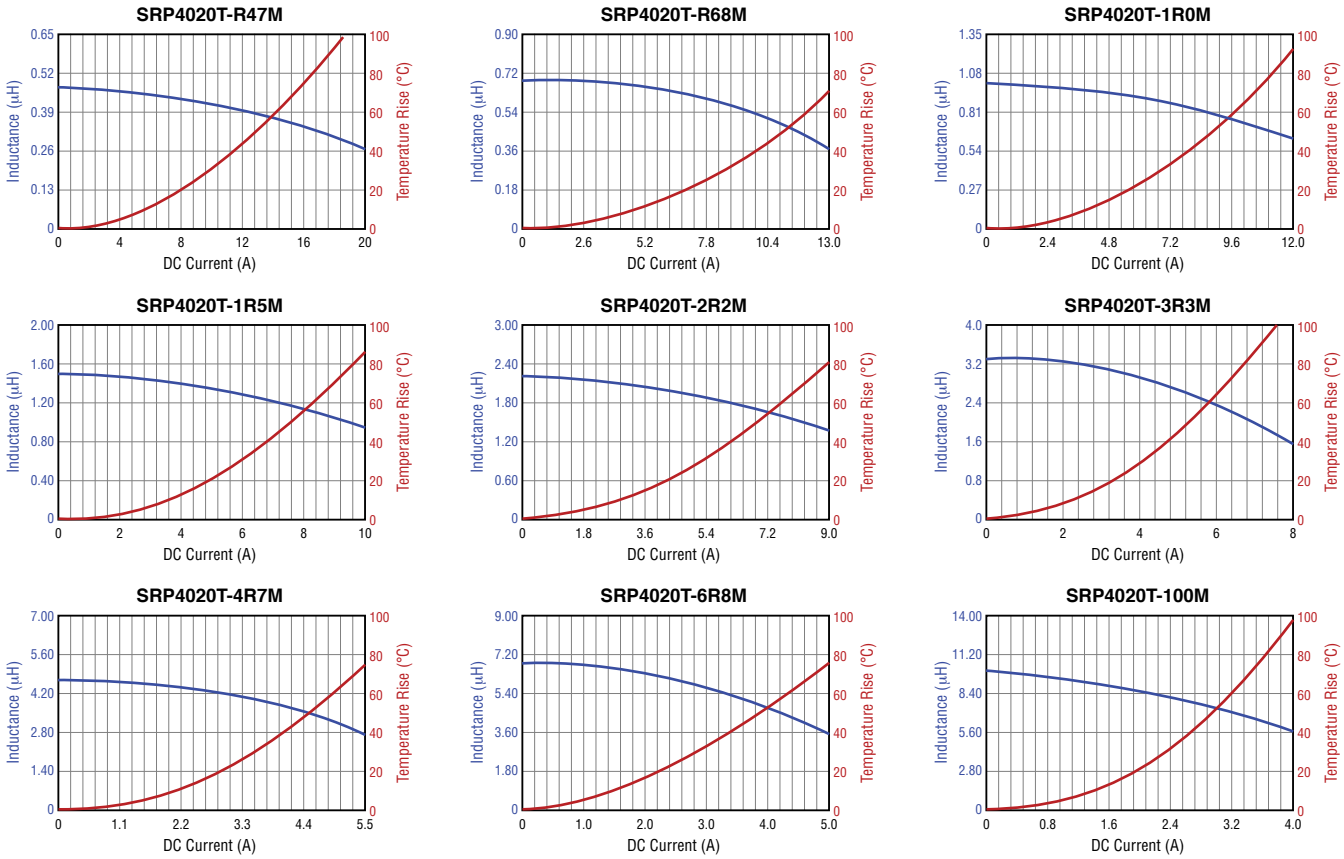
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

* 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.

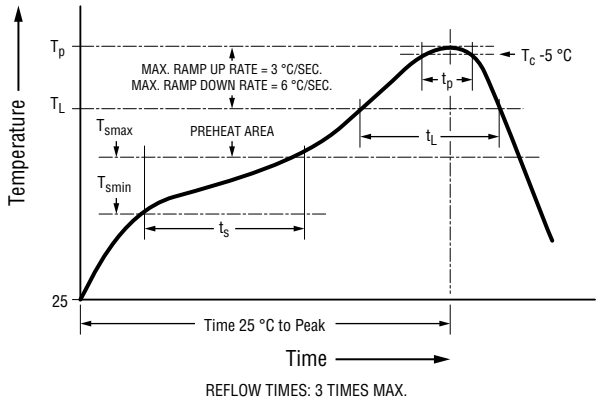
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L vs. I Charts



Soldering Profile



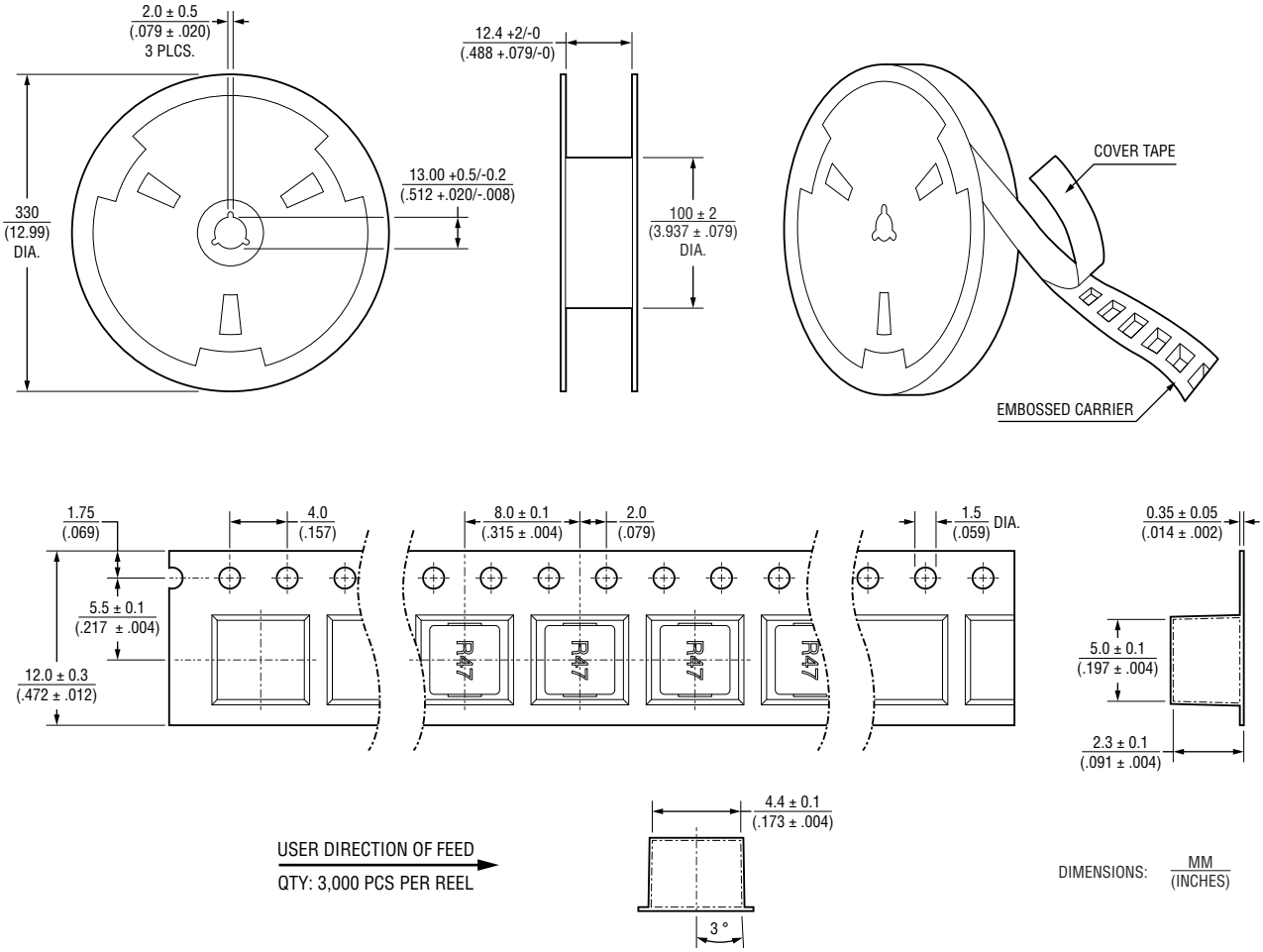
REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - 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
Peak package body temperature (T_p)	260 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than 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.

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Packaging Specifications



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REV. 02/26

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