



Features

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

Applications

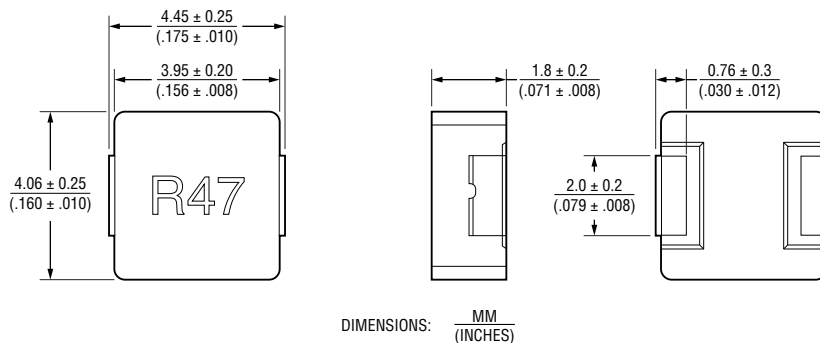
- Power supplies
- Consumer electronics

SRP4020T Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 KHz / 1 V		Q 100 MHz	SRF (MHz)	DCR (m Ω)		I _{rms} (A)	I _{sat} (A)
	L (μ H)	Tol. (%)			Typ.	Max		
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



Additional Information

Click these links for more information:



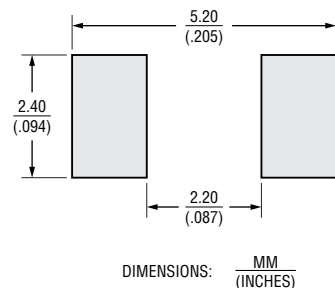
General Specifications

Operating Temperature -40 °C to +150 °C
 Storage Temperature -40 °C to +150 °C
 Temperature Rise 40 °C at rated I_{rms}
 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

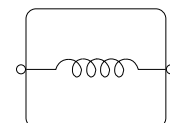


How to Order

SRP4020T - R47 M

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

Electrical Schematic



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

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

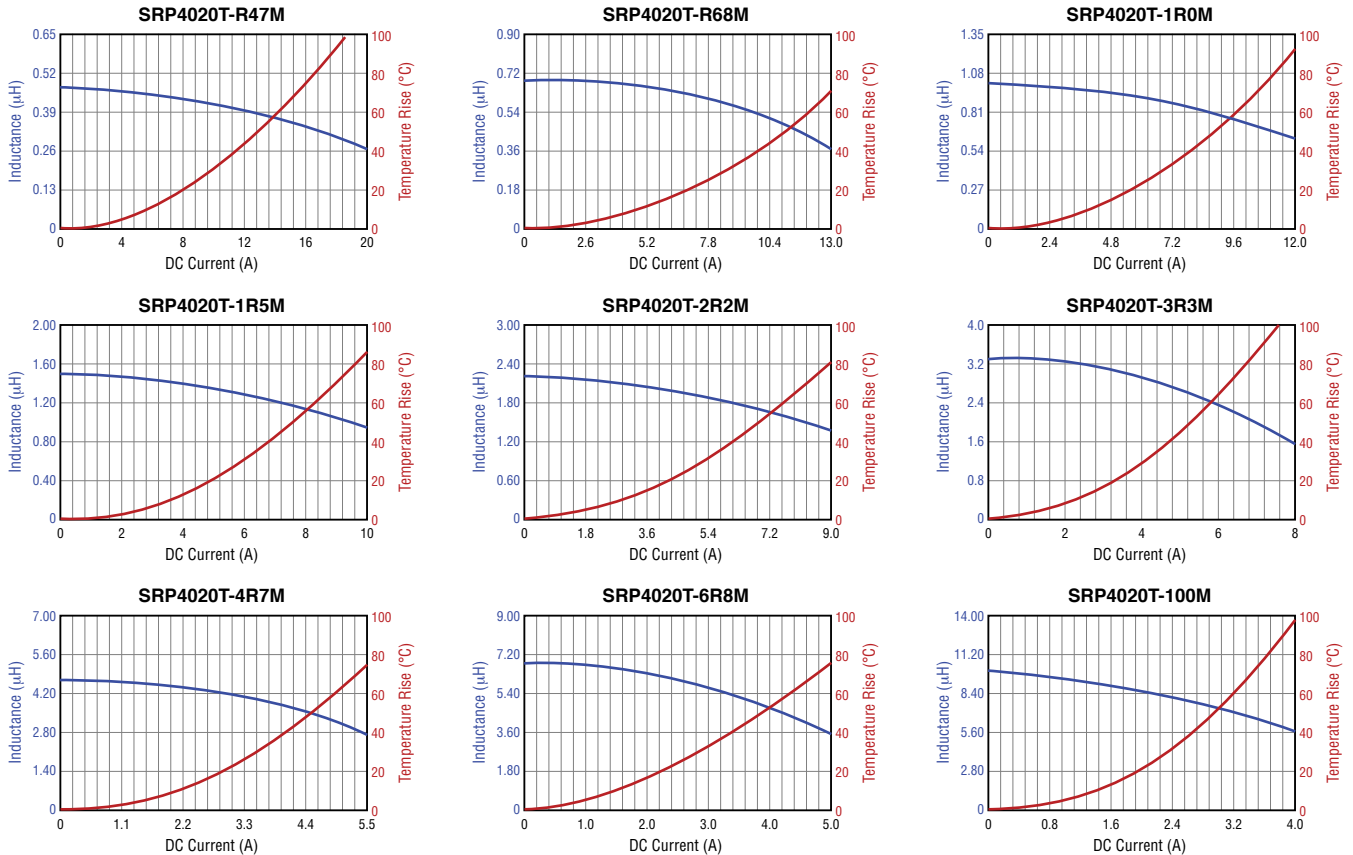
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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.

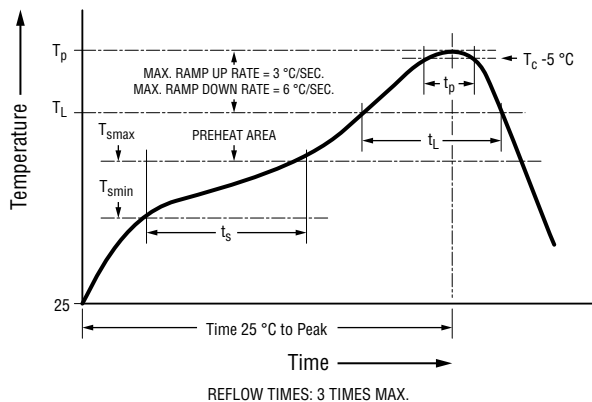
SRP4020T Series – Shielded Power Inductors

BOURNS®

L vs. I Charts



Soldering Profile



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)	217 °C
Time (t_L) maintained above T_L	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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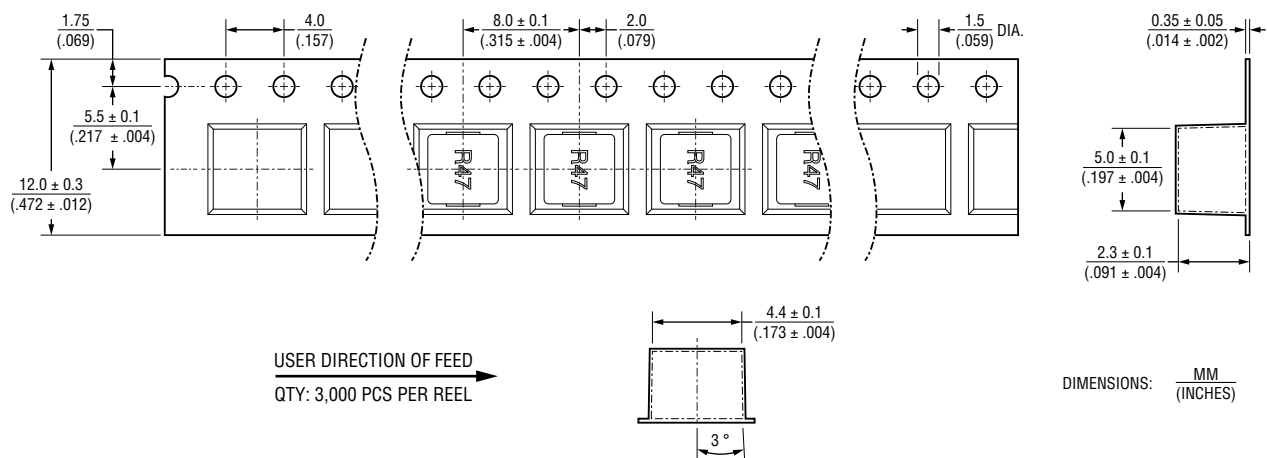
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Technical drawings of the 35mm film carrier showing front, side, and perspective views with dimensions:

- Front View:**
 - Overall diameter: $\frac{330}{(12.99)}$ DIA.
 - Central hole diameter: $\frac{2.0 \pm 0.5}{(.079 \pm .020)}$ 3 PLCS.
 - Inner hole diameter: $\frac{13.00 + 0.5/-0.2}{(.512 + .020/-0.008)}$
- Side View:**
 - Overall thickness: $\frac{12.4 + 2/-0}{(.488 + .079/-0)}$
 - Inner hole depth: $\frac{100 \pm 2}{(3.937 \pm .079)}$ DIA.
- Perspective View:**
 - Labels: COVER TAPE, EMBOSSED CARRIER



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