



**THE DATASHEET OF
SRP4020TA-R33M**





Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.1 to 22 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP4020TA Series - Shielded Power Inductors

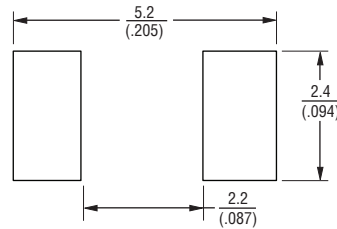
Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @ 100 KHz / 1 V	SRF (MHz) Typ.	DCR (m Ω) Typ.	DCR (m Ω) Max.	I _{rms} (A)	I _{sat} (A)	Terminal Type
	L (μ H)	Tol. (%)							
SRP4020TA-R10Y	0.10	\pm 30	5	300	3.2	4	12	35	Lead Frame
SRP4020TA-R22Y	0.22	\pm 30	10	270	6.6	7.3	11	24	
SRP4020TA-R33M	0.33	\pm 20	10	130	7.8	8.6	10	18	
SRP4020TA-R47M	0.47	\pm 20	10	120	11.2	14	8.0	12	
SRP4020TA-R56M	0.56	\pm 20	10	105	13.5	16	7.3	10	
SRP4020TA-R68M	0.68	\pm 20	10	100	16	19	7.0	10	
SRP4020TA-1R0M	1.0	\pm 20	10	65	22	27	5.0	8.5	
SRP4020TA-1R2M	1.2	\pm 20	10	64	25	30	4.8	7.8	
SRP4020TA-1R5M	1.5	\pm 20	10	62	34.8	42	4.5	7.0	
SRP4020TA-2R2M	2.2	\pm 20	10	45	51	61	4.0	6.0	
SRP4020TA-3R3M	3.3	\pm 20	10	40	69	76	3.5	4.0	
SRP4020TA-4R7M	4.7	\pm 20	10	27	95	105	2.6	3.5	
SRP4020TA-5R6M	5.6	\pm 20	10	25	112	125	2.2	3.0	
SRP4020TA-6R8M	6.8	\pm 20	10	24	150	172	2.1	2.8	
SRP4020TA-8R2M	8.2	\pm 20	10	21	158	180	2.0	2.5	
SRP4020TA-100M	10.0	\pm 20	10	19	215	243	1.8	2.3	
SRP4020TA-150M	15.0	\pm 20	10	17	325	374	1.5	1.9	
SRP4020TA-220M	22.0	\pm 20	10	12	470	500	1.2	1.4	

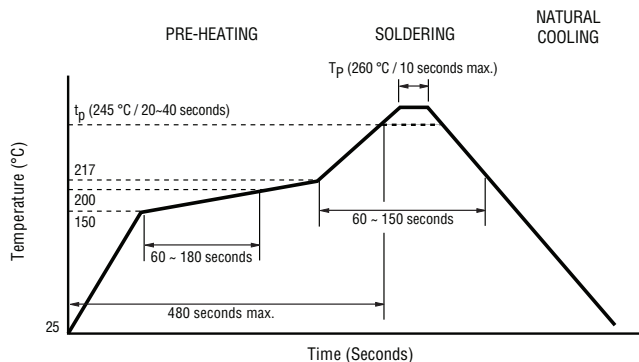
How to Order

Model **SRP4020TA - 100M**
 Value Code (see table)

Recommended Layout



Soldering Profile



REFLOW TIMES: 3 MAX.

General Specifications

Test Voltage 1.0 V
 Test Frequency 100 KHz
 Operating Temperature -55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature -55 °C to +150 °C
 Rated Current Inductance drops 20 % at I_{sat}
 Temperature Rise 40 °C at rated I_{rms}
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

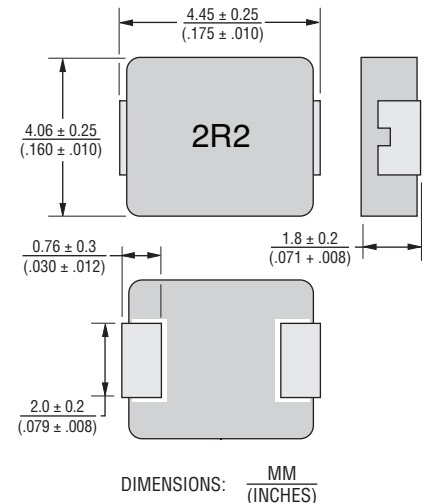
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

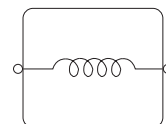
Core Carbonyl powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 3000 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



Electrical Schematic



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

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

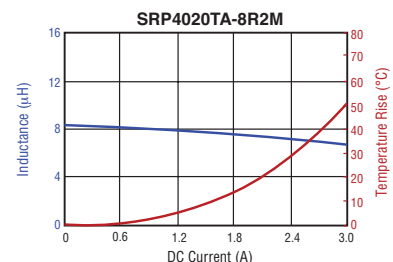
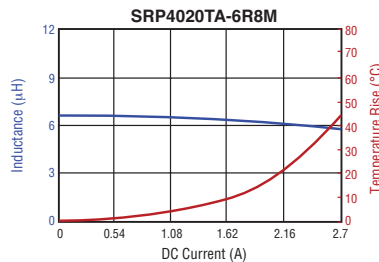
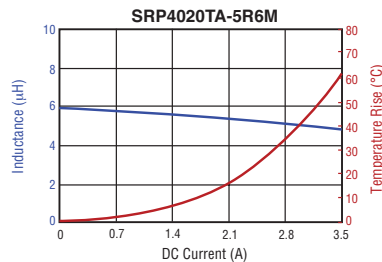
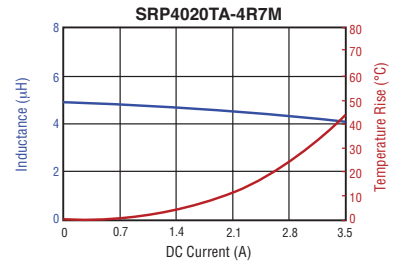
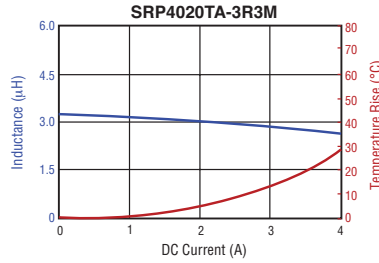
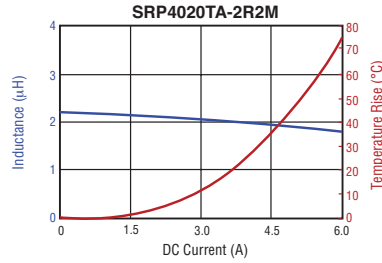
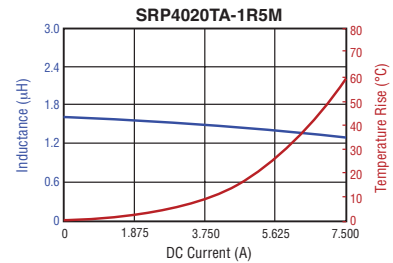
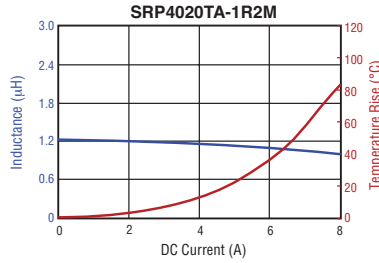
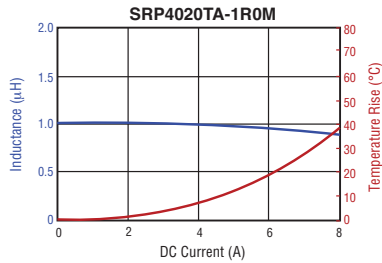
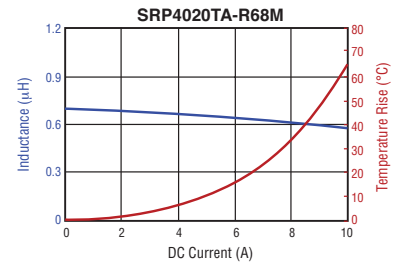
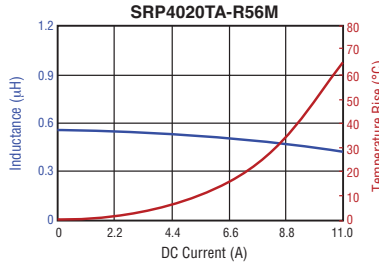
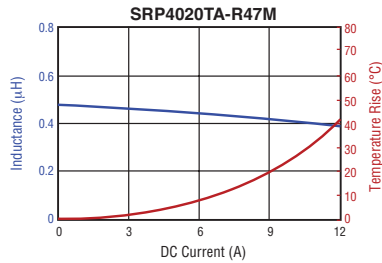
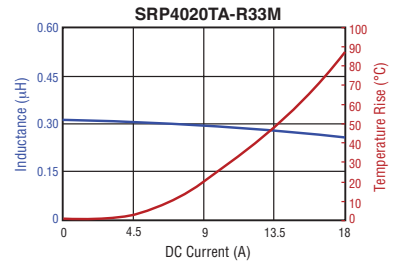
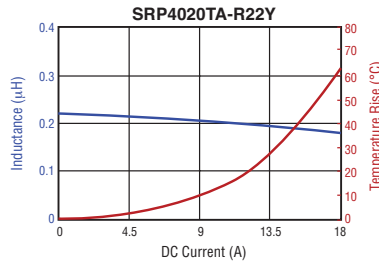
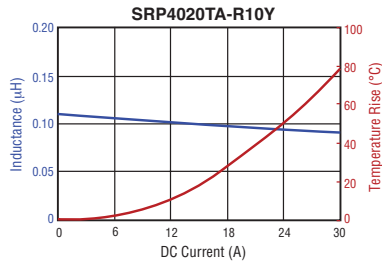
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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SRP4020TA Series - Shielded Power Inductors



L vs. I Charts



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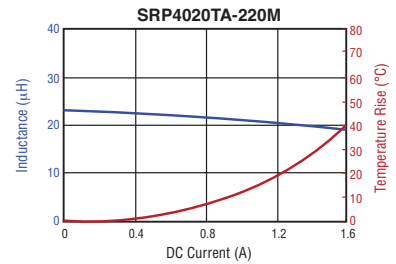
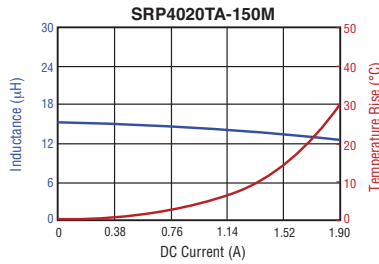
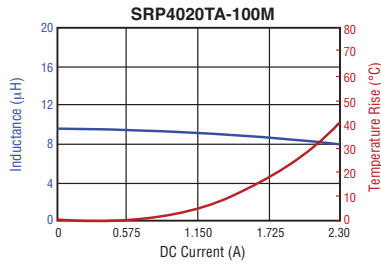
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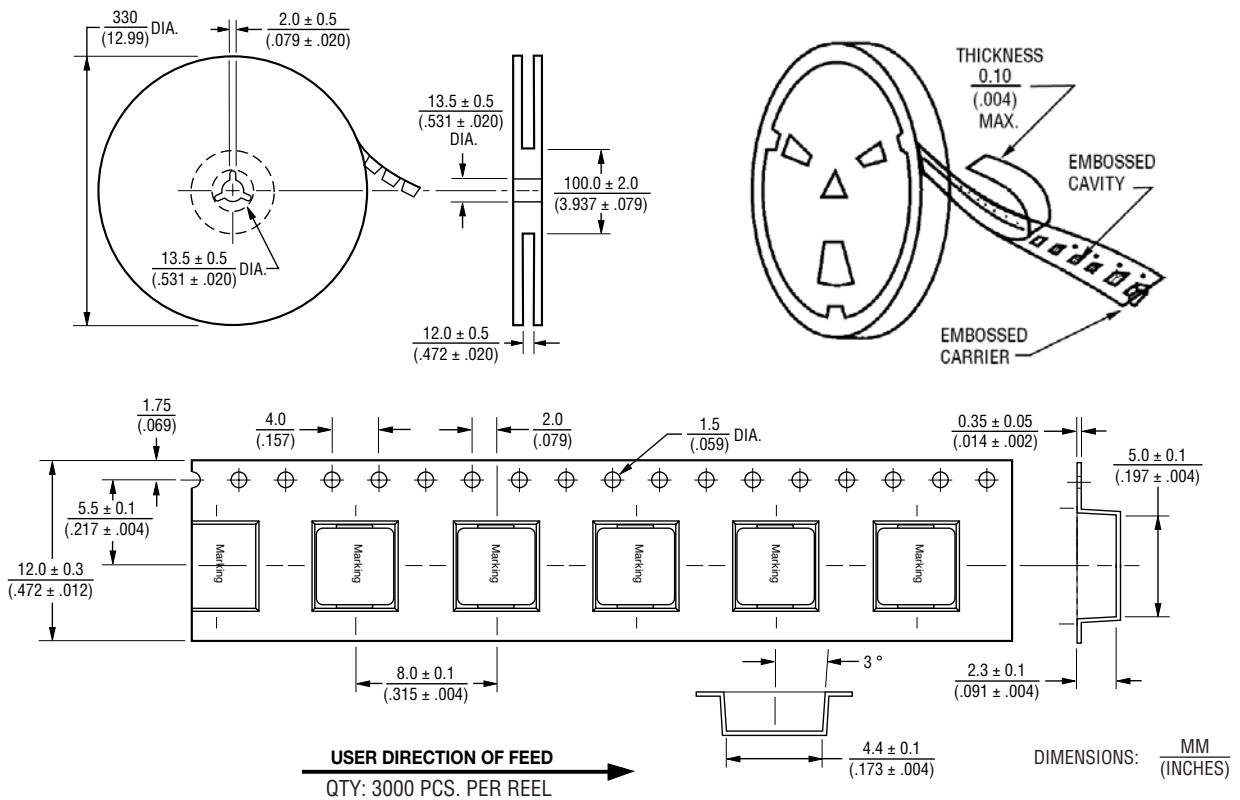
SRP4020TA Series - Shielded Power Inductors



L vs. I Charts



Packaging Specifications



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EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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

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REV. 07/20

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