



Features

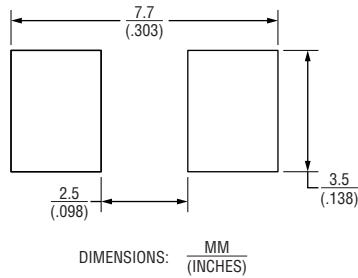
- Shielded construction for low radiation
- Metal powder core
- High saturation current
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP7020TA Series - Shielded Power Inductors

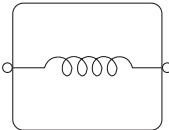
Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Typ.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. (%)						
SRP7020TA-R10Y	0.10	± 30	6	180	2	2.4	21	40
SRP7020TA-R20Y	0.20	± 30	15	165	2.5	3	18	35
SRP7020TA-R33M	0.33	± 20	15	100	4.5	5	14	25
SRP7020TA-R47M	0.47	± 20	15	83	7.1	8.3	11.7	20
SRP7020TA-R68M	0.68	± 20	15	66	8.3	10	10.5	16
SRP7020TA-1R0M	1.0	± 20	15	58	16.5	18	8	14
SRP7020TA-1R5M	1.5	± 20	15	46	23	27	7	12
SRP7020TA-2R2M	2.2	± 20	15	36	32	37	6	10
SRP7020TA-3R3M	3.3	± 20	15	26	43	48	5	8
SRP7020TA-4R7M	4.7	± 20	15	22	53	60	4.5	7
SRP7020TA-5R6M	5.6	± 20	15	20	59	68	4	6
SRP7020TA-6R8M	6.8	± 20	15	19	63	73	4	5.5
SRP7020TA-8R2M	8.2	± 20	15	17	101	116	3.2	5
SRP7020TA-100M	10.0	± 20	15	13	134	154	2.8	4

Recommended Layout



Schematic



How to Order

SRP7020TA - 100 M

Model _____
 Value Code (see table) _____
 Tolerance Code _____

Additional Information

Click these links for more information:



General Specifications

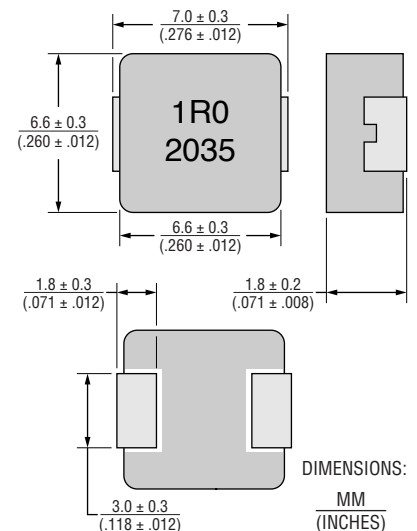
Operating Temperature
 -55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature
 -55 °C to +150 °C
 Rated Current
 Inductance drops 20 % at Isat
 Temperature Rise 40 °C at rated Irms¹
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

Note 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.....Metal alloy powder
 Wire.....Enameled copper
 Terminal Finish.....Sn
 Packaging..... 1500 pcs. per 13-inch reel

Product Dimensions



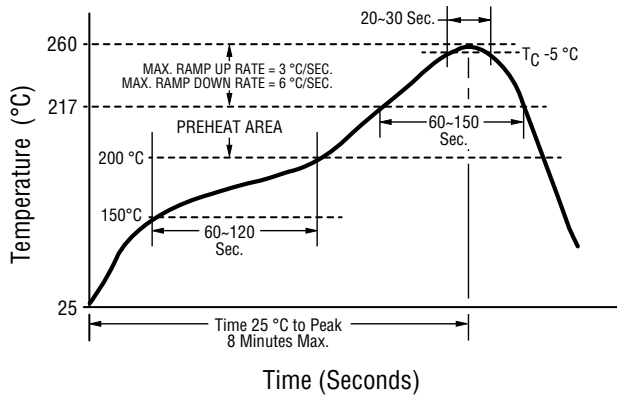
WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

* 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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Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat	
- Temperature Min. (T_{smin})	150 °C
- Temperature Max. (T_{smax})	200 °C
- Time (t_s) from T_{smin} to T_{smax}	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 within 5 °C of Actual Peak Temperature (t_p)	< 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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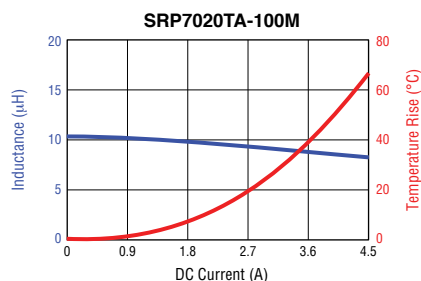
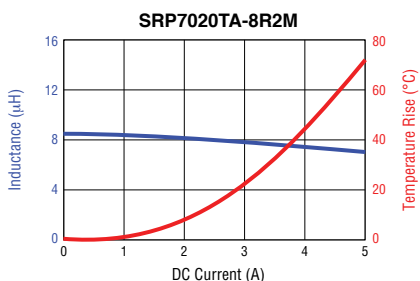
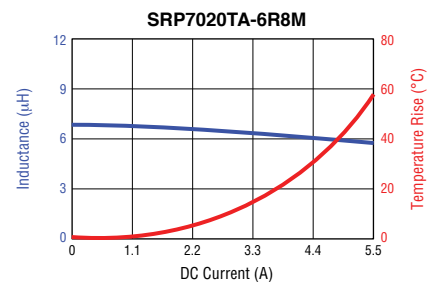
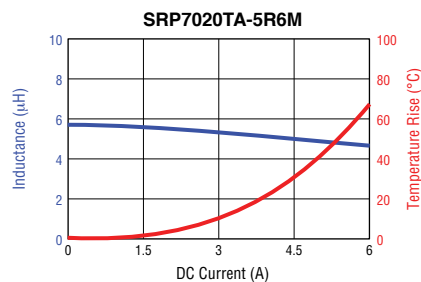
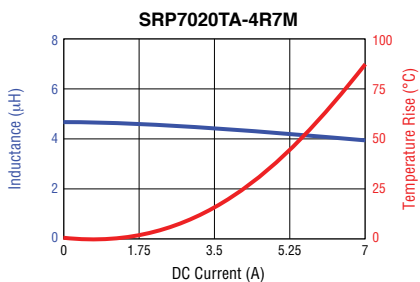
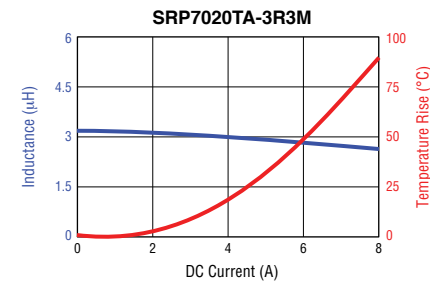
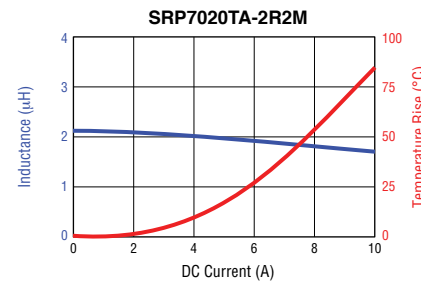
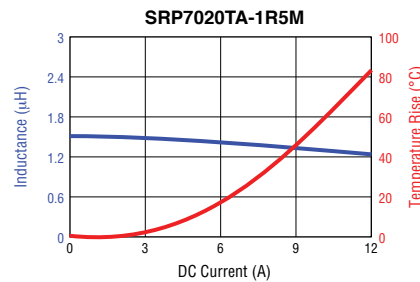
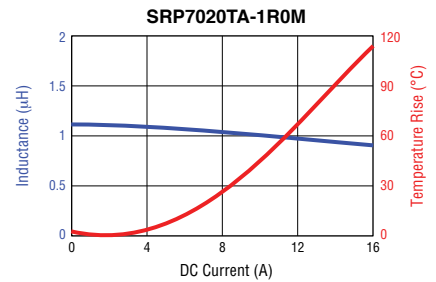
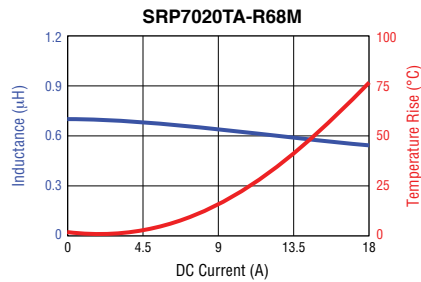
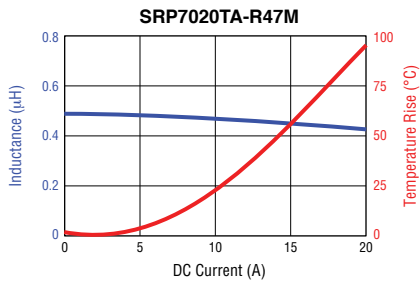
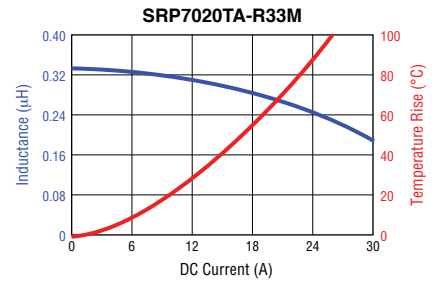
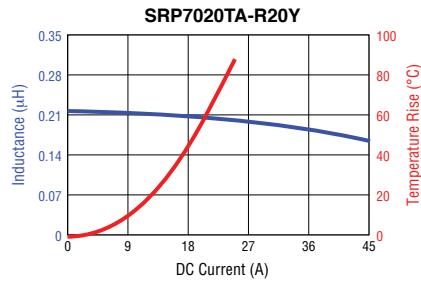
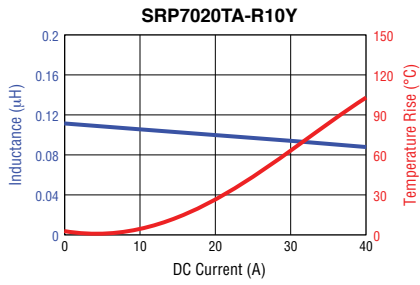
Users should verify actual device performance in their specific applications.

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L vs. I Charts

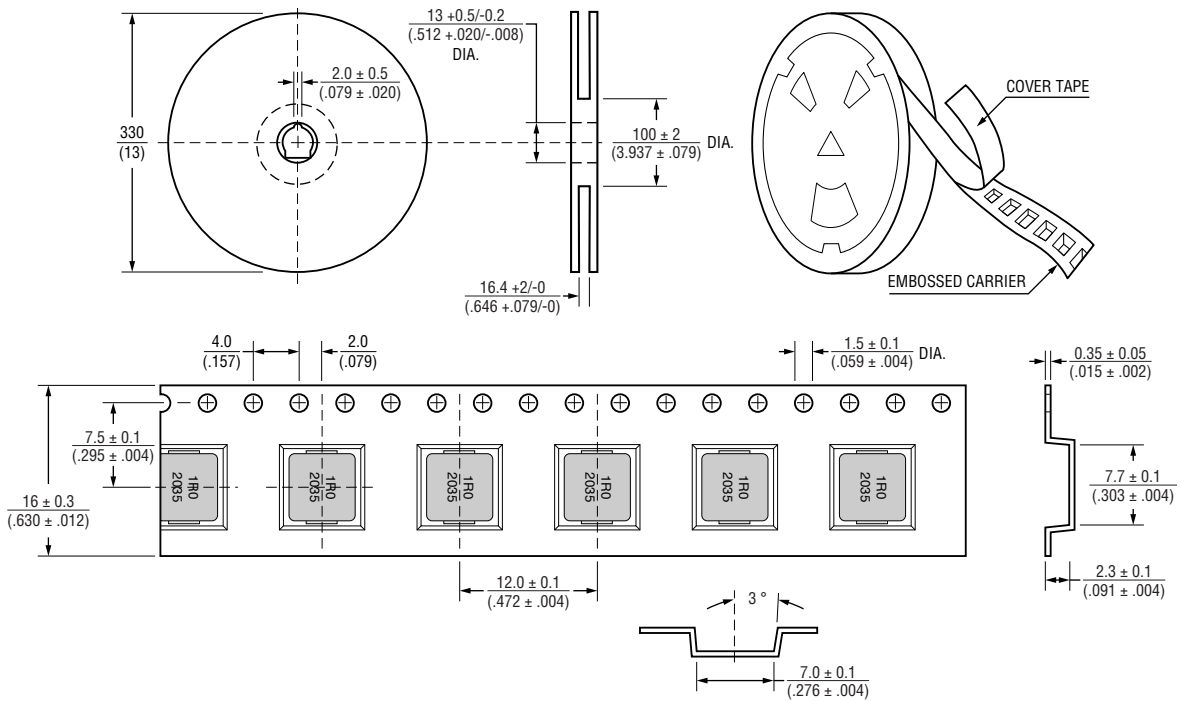


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BOURNS®

Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

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www.bourns.com

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