

Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.1 to 10 µH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

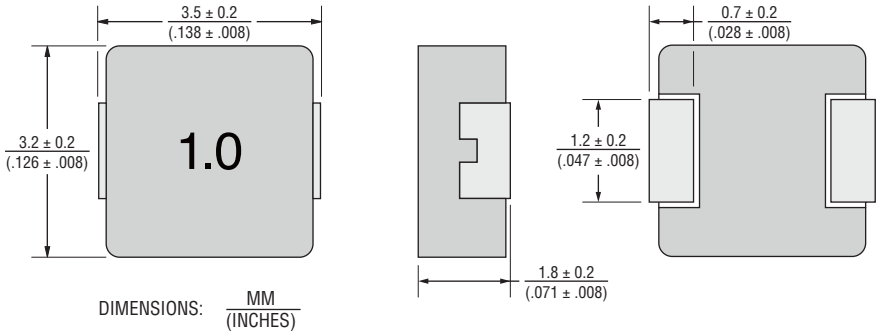
- Selected automotive applicationsf:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

SRP3020TA Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Min.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I rms (A) Typ.	I sat (A) Typ.
	L (µH)	Tol. %						
SRP3020TA-R10Y	0.10	± 30 %	5	340	6.6	9	10.5	14.0
SRP3020TA-R22Y	0.22	± 30 %	5	185	11	14	9.0	11.2
SRP3020TA-R33M	0.33	± 20 %	5	160	17	21	8.0	10.0
SRP3020TA-R47M	0.47	± 20 %	5	105	19.7	23	7.0	9.0
SRP3020TA-R68M	0.68	± 20 %	5	94	25.5	29	5.5	7.0
SRP3020TA-1R0M	1.0	± 20 %	10	82	32	38	4.0	5.0
SRP3020TA-1R5M	1.5	± 20 %	10	54	42	50	3.8	4.0
SRP3020TA-2R2M	2.2	± 20 %	10	45	65	75	3.5	3.7
SRP3020TA-3R3M	3.3	± 20 %	10	40	125	145	3.0	3.5
SRP3020TA-4R7M	4.7	± 20 %	10	34	172	200	2.6	3.0
SRP3020TA-5R6M	5.6	± 20 %	10	29	205	238	2.2	2.6
SRP3020TA-6R8M	6.8	± 20 %	10	24	260	300	1.9	2.2
SRP3020TA-8R2M	8.2	± 20 %	10	22	340	390	1.6	1.9
SRP3020TA-100M	10	± 20 %	10	20	366	422	1.4	1.6

Product Dimensions



General Specifications

Operating Temperature
.....-40 °C to +150 °C
(Temperature rise included)
Storage Temperature (Component)
.....-40 °C to +150 °C
Rated Current
..... Inductance drops 30 % at Isat
Temperature Rise ... 40 °C at rated Irms[1]
MSL 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

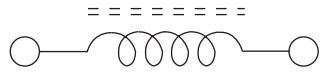
Core.....Metal alloy powder
Wire .....Enameled copper
Terminal Finish ..... Sn/Ni
Packaging..... 3000 pcs. per 13-inch reel

How to Order

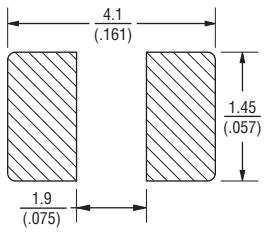
SRP3020TA - 1R0M

Model
Value Code (see table)

Schematic



Recommended Layout

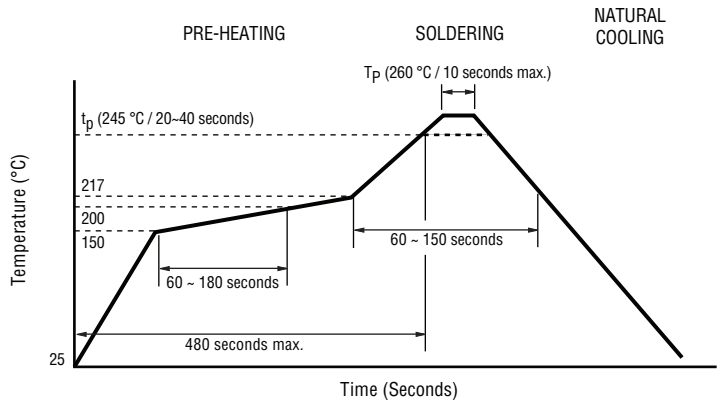


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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

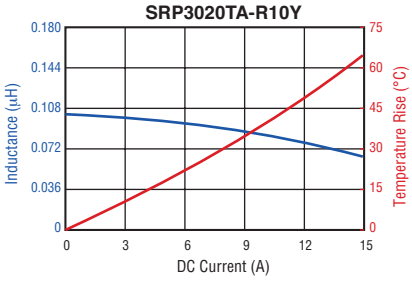
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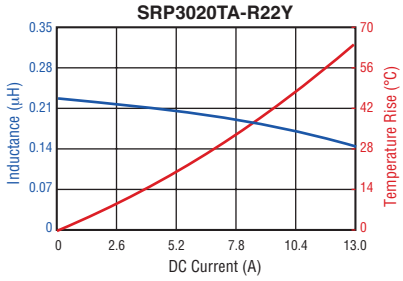
Soldering Profile

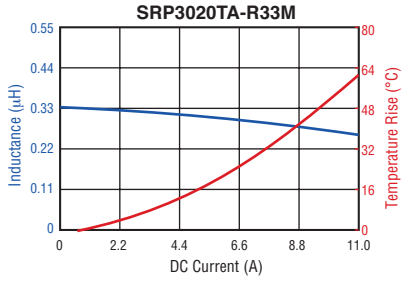


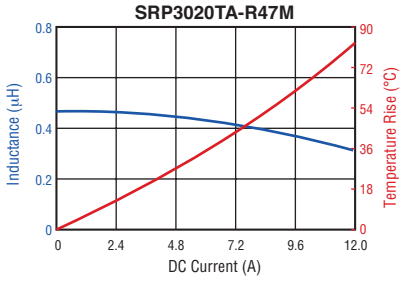
REFLOW TIMES: 3 MAX.

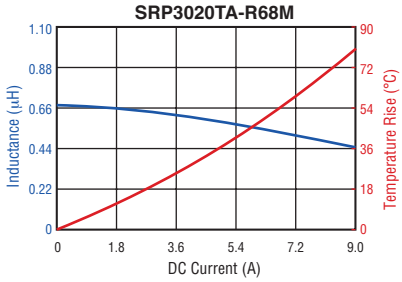
L vs. I Charts

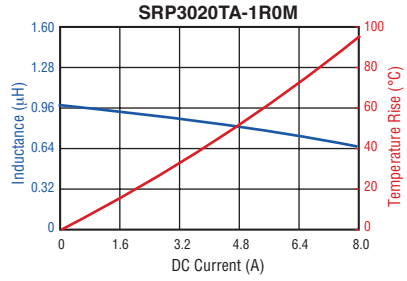


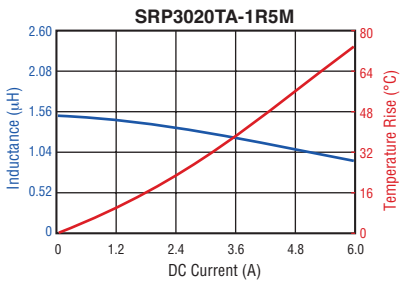


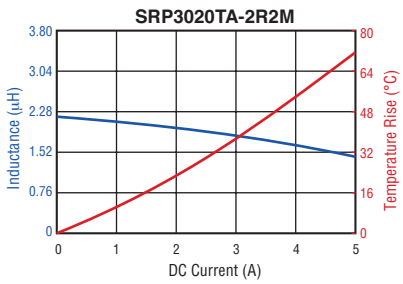


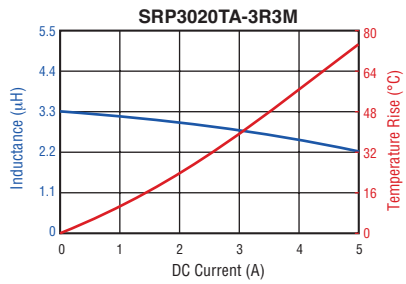






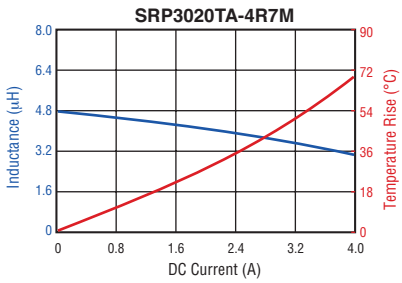


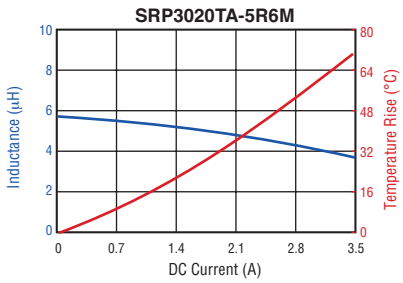


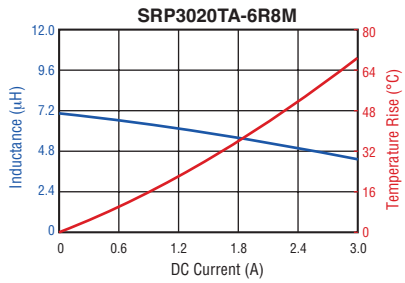


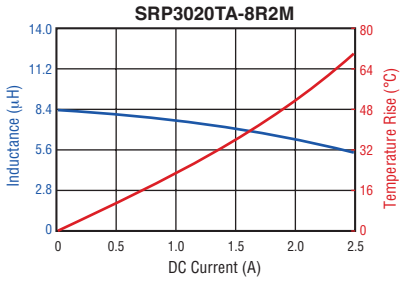
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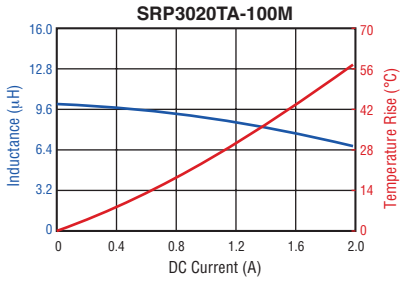
L vs. I Charts (Continued)





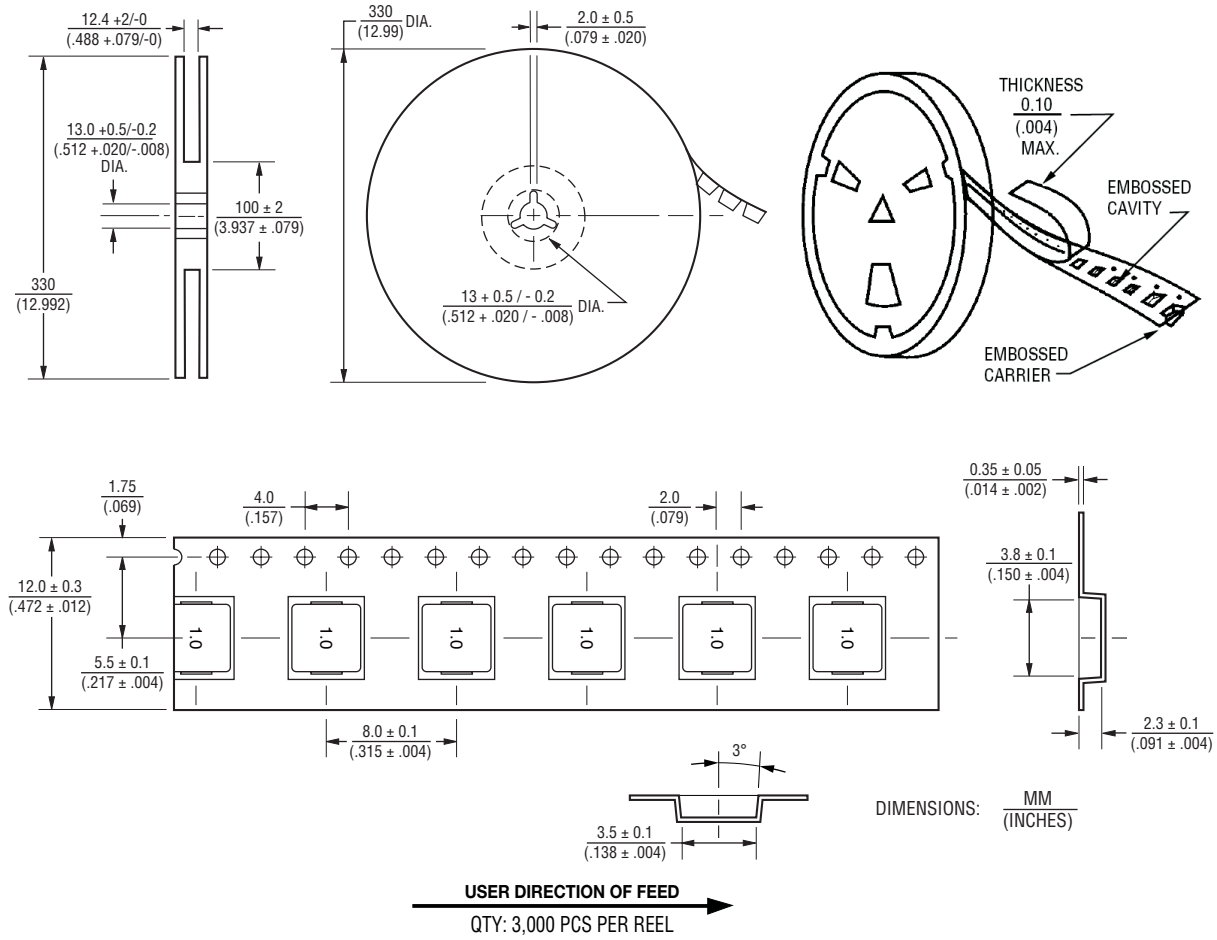






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Packaging Specifications



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