



**THE DATASHEET OF
TSM-105-01-T-SV-P-TR**





Features

- Wirewound
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low profile
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

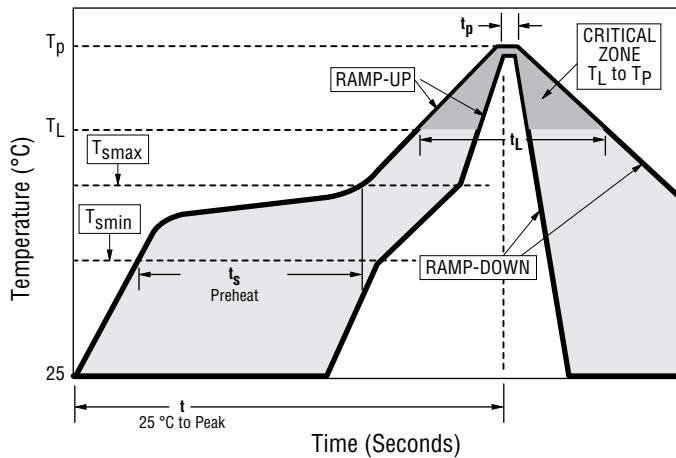
- Automotive systems:
 - Driver assistant
 - Lighting
 - Infotainment
- DC/DC converters
- Power supplies
- Smartphones
- HDD/SSD
- Miniature mobile electronic devices

SRP2510A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 MHz / 1 V		Q (Typ.) @ 1 MHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. (%)						
SRP2510A-R22M	0.22	±20	35	170	9	12.5	5.9	7.9
SRP2510A-R33M	0.33	±20	35	170	21	26	4.4	6.6
SRP2510A-R47M	0.47	±20	35	138	27	32	3.9	5.0
SRP2510A-R68M	0.68	±20	35	120	37	44	3.4	4.3
SRP2510A-1R0M	1.0	±20	35	94	45	54	3.0	3.5
SRP2510A-1R5M	1.5	±20	35	68	76	91	2.5	2.6
SRP2510A-2R2M	2.2	±20	35	57	99	119	2.3	2.4
SRP2510A-4R7M	4.7	±20	35	40	220	262	1.36	1.8

Soldering Profile



Profile Feature	Pb Free Assembly
Average Ramp Rate (T _{Smax} to T _P)	3 °C/second max.
Preheat <ul style="list-style-type: none"> - Temperature Min. (T_{Smin}) - Temperature Max. (T_{Smax}) - Time (t_{Smin} to t_{Smax}) 	150 °C 200 °C 60-180 seconds
Time Maintained Above <ul style="list-style-type: none"> - Temperature (T_L) - Time (t_L) 	217 °C 60-150 seconds
Peak Temperature (T _P)	260 °C +0/-5 °C
Time within 5 °C of Actual Peak Temperature (T _P)	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Additional Information

Click these links for more information:



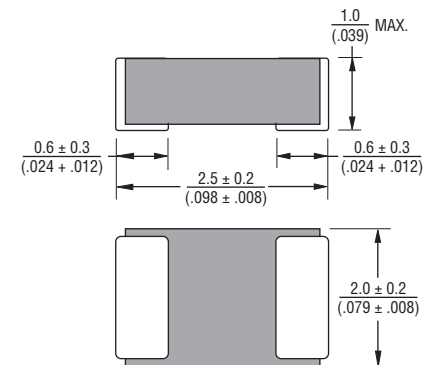
General Specifications

Operating Temperature... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component)
..... -50 °C to +125 °C
Rated Current
..... Inductance drops 30 % at Isat
Temperature Rise40 °C at rated Irms
Moisture Sensitivity Level (MSL) 1
ESD Classification (HBM)..... N/A

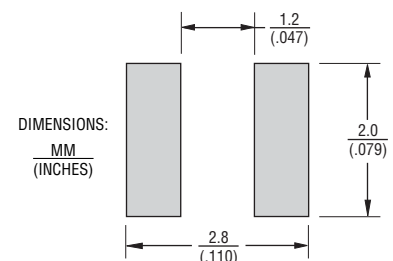
Materials

Core..... Metal alloy powder
Wire Enameled copper
Terminal Finish Sn
Packaging..... 3000 pcs. per 7-inch reel

Product Dimensions



Recommended Layout



* 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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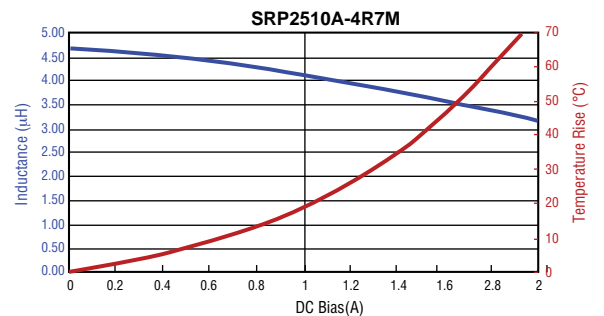
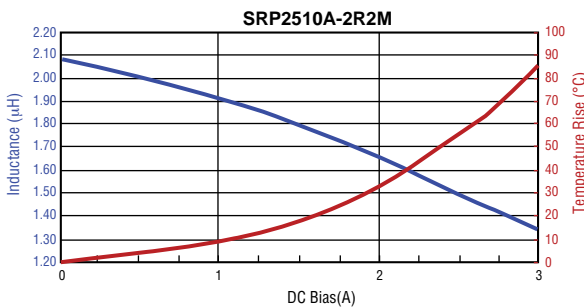
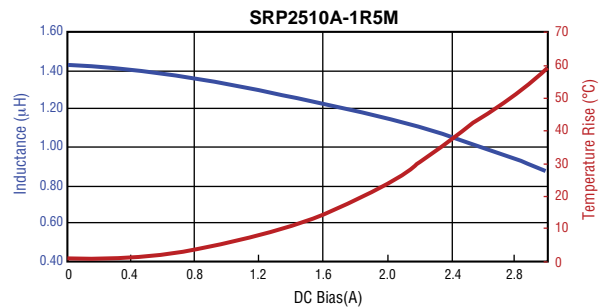
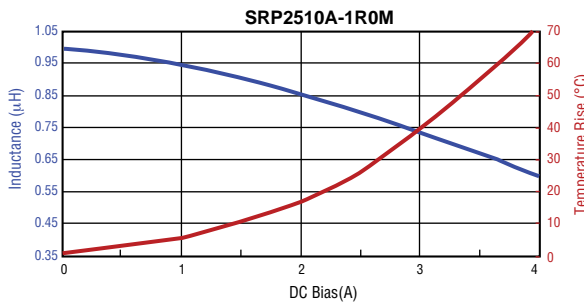
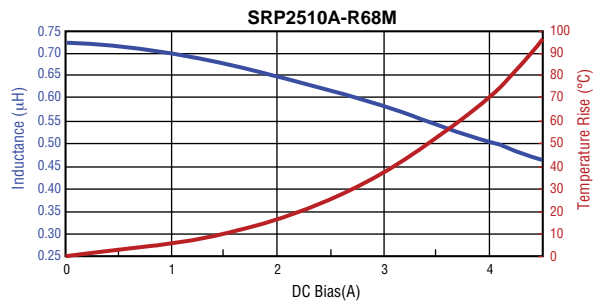
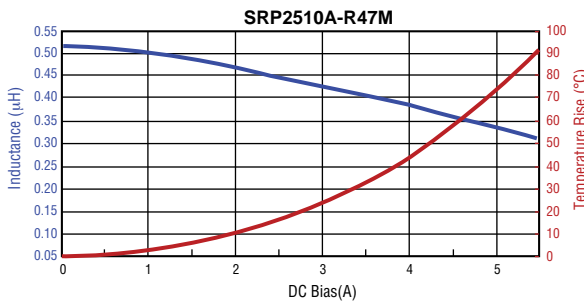
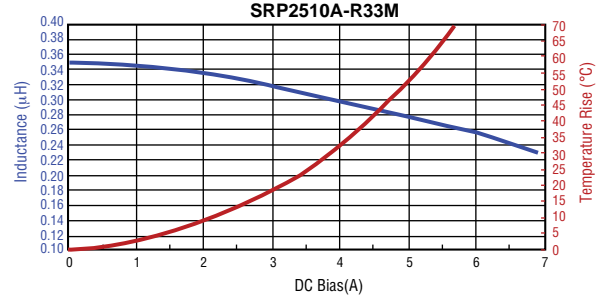
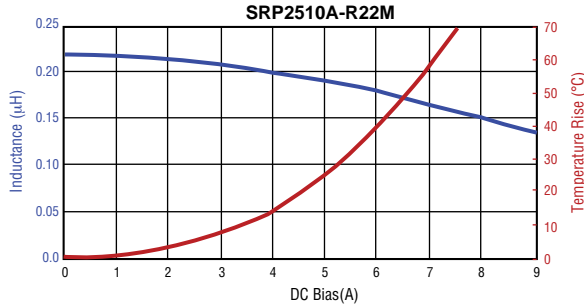


WARNING
Cancer and Reproductive Harm
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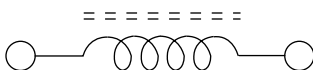
SRP2510A Series - Shielded Power Inductors



L vs. I Charts



Electrical Schematic



How to Order

SRP2510A - R22M

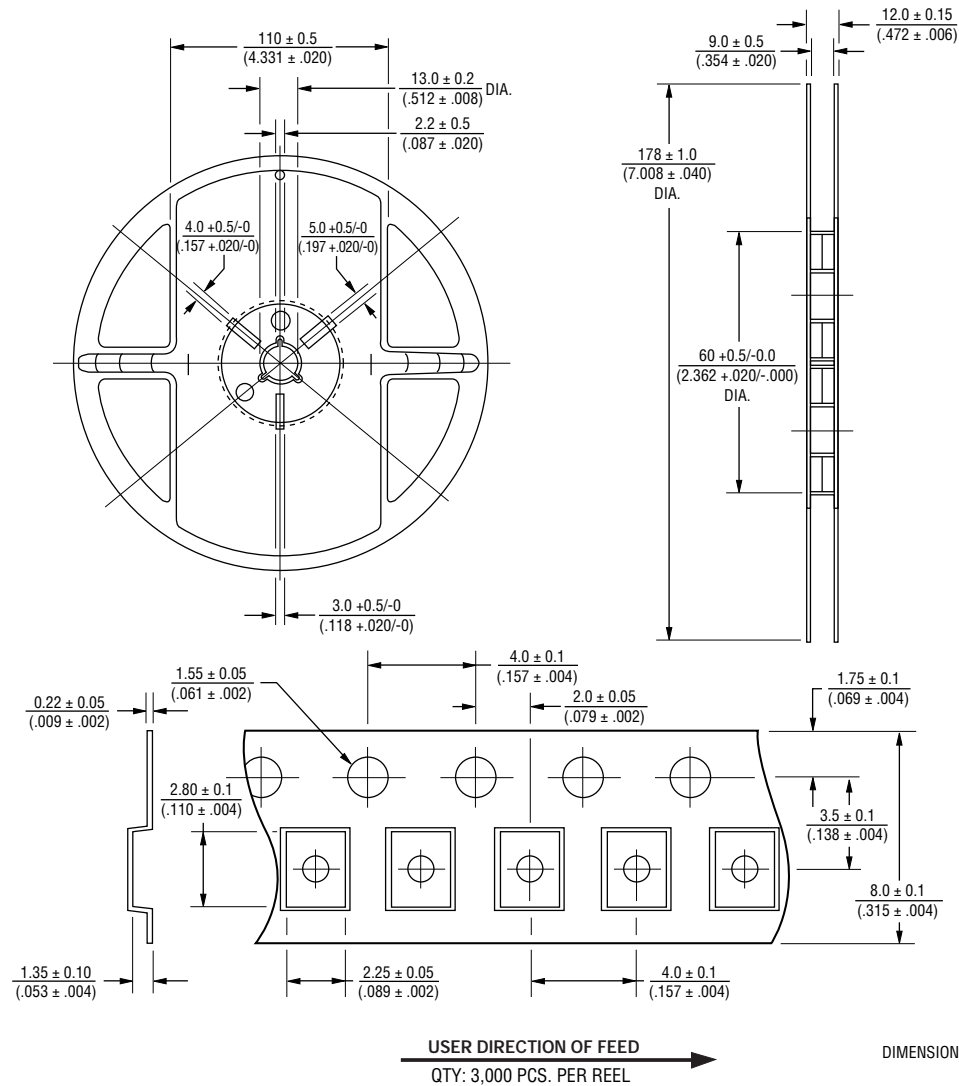
Model _____
Value Code (see table) _____

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SRP2510A Series - Shielded Power Inductors

BOURNS®

Packaging Specifications



BOURNS®

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REV. 06/24

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