



Features

- Multiple configurations: parallel, series, dual-inductor, and transformer
- Magnetically shielded, low radiation
- High operating temperature up to 150 °C
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

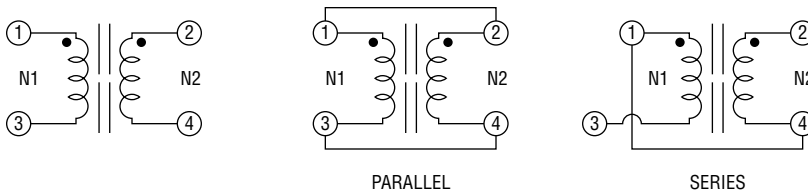
- SEPIC topology
- Power supplies

SRF0703HA Series – Dual-Winding Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part No.	Parallel Ratings				Series Ratings			
	Inductance (μH) ±20 %	RDC (mΩ) Max.	I _{rms} (A) Typ.	I _{sat} (A) Typ.	Inductance (μH) ±20 %	RDC (mΩ) Max.	I _{rms} (A) Typ.	I _{sat} (A) Typ.
SRF0703HA-4R7M	4.70	50.0	2.70	3.78	18.8	200	1.35	1.89
SRF0703HA-8R2M	8.20	77.2	2.19	2.66	34.1	306	1.100	1.33
SRF0703HA-100M	10.00	82.6	2.08	2.47	39.6	342	1.040	1.24
SRF0703HA-150M	15.00	119.0	1.83	2.05	59.6	470	0.916	1.03
SRF0703HA-220M	22.00	150.0	1.62	1.67	89.5	620	0.811	0.83
SRF0703HA-330M	33.00	240.0	1.31	1.35	140.5	1000	0.653	0.68
SRF0703HA-470M	47.00	338.0	1.08	1.14	194.2	1280	0.542	0.57
SRF0703HA-680M	68.00	507.0	0.89	0.96	289.3	1920	0.444	0.48
SRF0703HA-820M	82.00	610.0	0.86	0.89	324.7	2280	0.430	0.44
SRF0703HA-101M	100.00	715.0	0.73	0.79	397.6	2640	0.367	0.39
SRF0703HA-151M	150.00	986.0	0.58	0.65	608.2	3630	0.289	0.32
SRF0703HA-221M	220.00	1480.0	0.52	0.53	922.6	5500	0.260	0.27
SRF0703HA-331M	330.00	2160.0	0.42	0.44	1335	8250	0.211	0.22
SRF0703HA-471M	470.00	2820.0	0.35	0.37	1859	11220	0.173	0.18
SRF0703HA-681M	680.00	3960.0	0.29	0.31	2930	16170	0.143	0.15
SRF0703HA-821M	820.00	5010.0	0.27	0.28	3559	20070	0.134	0.14
SRF0703HA-102M	1000.00	6110.0	0.26	0.25	4120	24420	0.128	0.13

Electrical Schematic



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
Temperature Rise 40 °C typ. at rated I_{rms}¹
Rated Current Inductance drops 30 % at I_{sat}
Hi-pot (N1-N2) 500 VAC / 60 Hz, 3 mA, 1 sec.
Moisture Sensitivity Level 1
ESD Classification (HBM) N/A
¹Circuit 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 Material Ferrite
Wire Enameled copper
Terminal Finish Sn
Packaging 1500 pcs. per 13-inch reel

How to Order

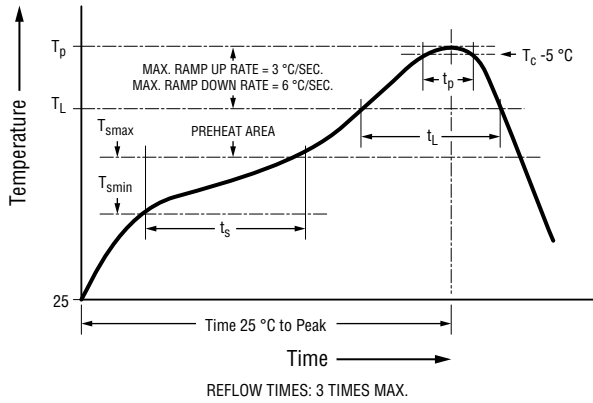
Model SRF0703HA - 4R7 M
Inductance Value Code _____
4R7 = 4.70 μH
8R2 = 8.20 μH
100 = 10.00 μH
150 = 15.00 μH
220 = 22.00 μH
330 = 33.00 μH
470 = 47.00 μH
680 = 68.00 μH
820 = 82.00 μH
101 = 100.00 μH
151 = 150.00 μH
221 = 220.00 μH
331 = 330.00 μH
471 = 470.00 μH
681 = 680.00 μH
821 = 820.00 μH
102 = 1000.00 μH
Tolerance Code _____
M = ±20 %



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

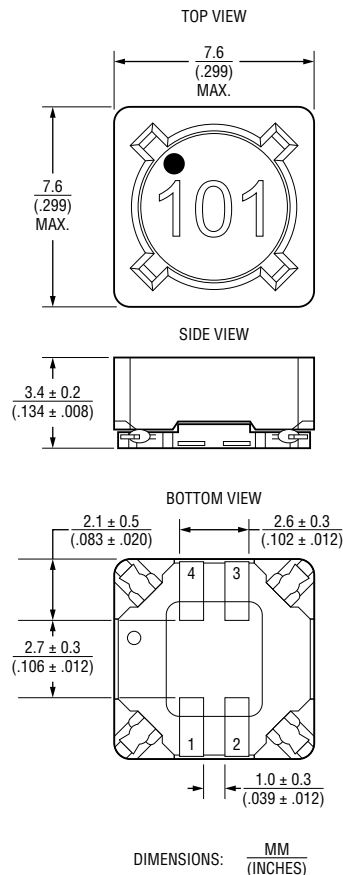
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less. Specifications are subject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

Soldering Profile

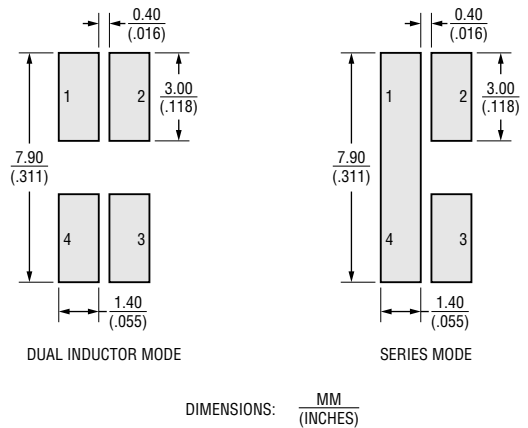


Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time (t_s) from T_{smin} to T_{smax} 	150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	250 °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.

Product Dimensions



Recommended Layout



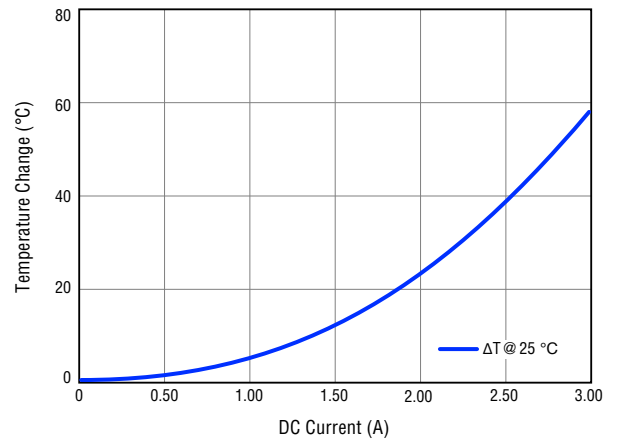
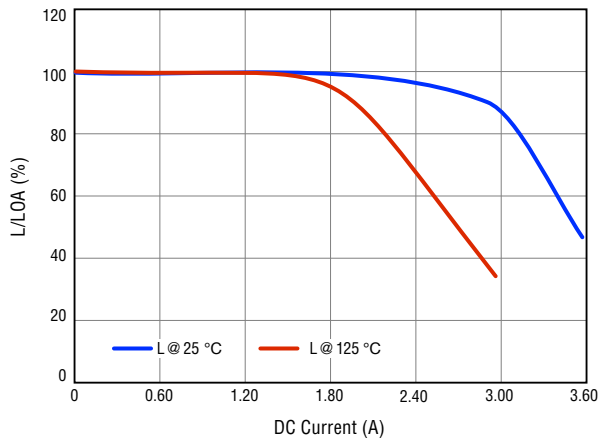
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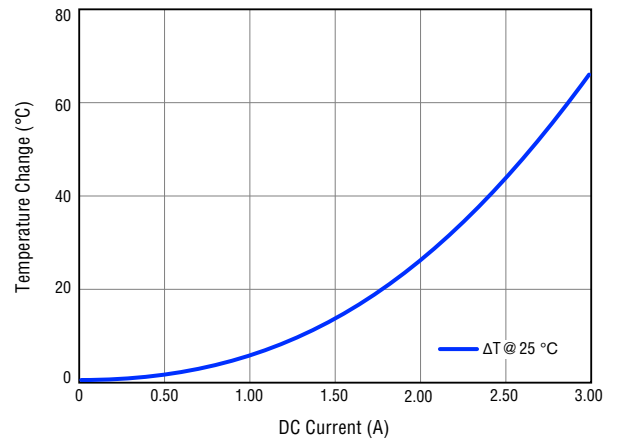
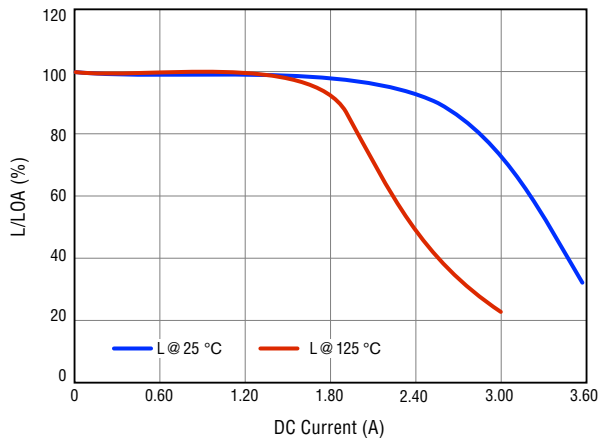
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Typical Current Characteristics

SRF0703HA-8R2M

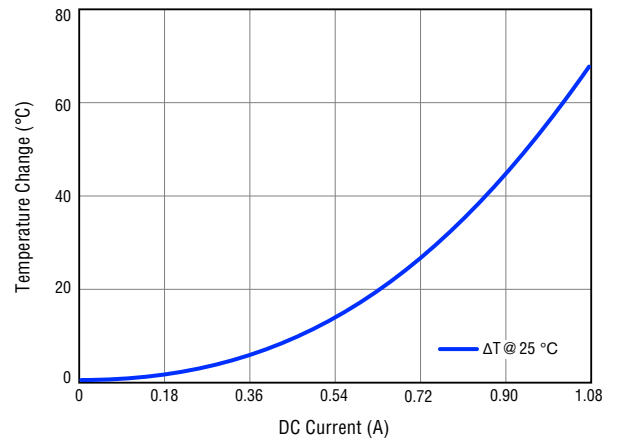
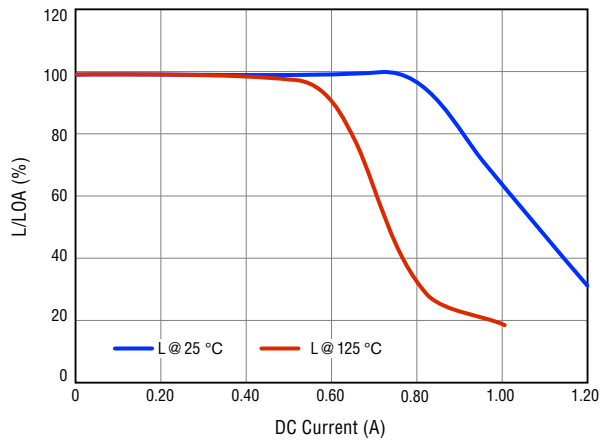


SRF0703HA-100M

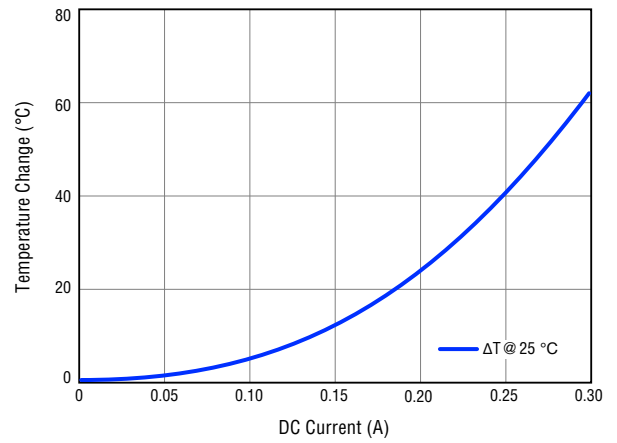
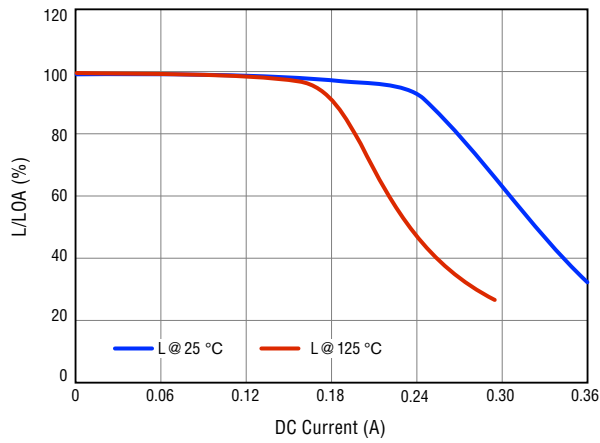


Typical Current Characteristics

SRF0703HA-101M



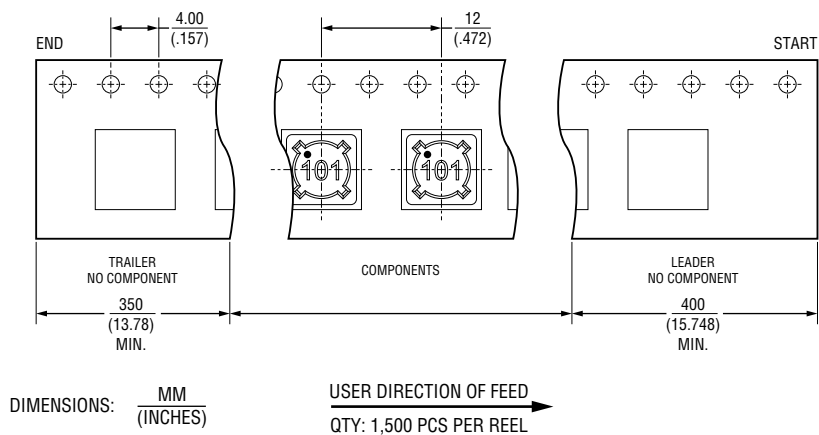
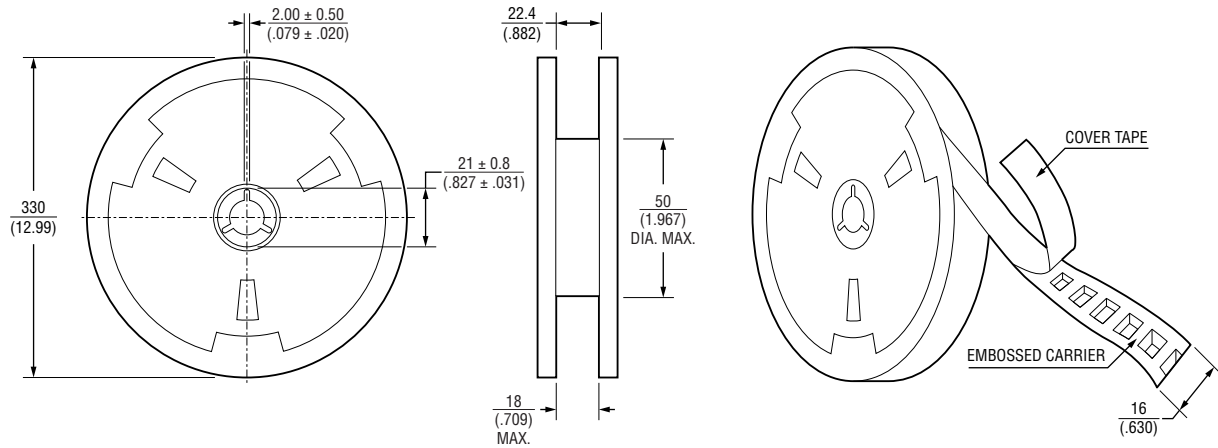
SRF0703HA-102M



SRF0703HA Series – Dual-Winding Shielded Power Inductors

BOURNS®

Packaging Specifications



BOURNS®

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

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

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

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REV. 12/24

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Users should verify actual device performance in their specific applications.

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