

Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Dual inductors
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

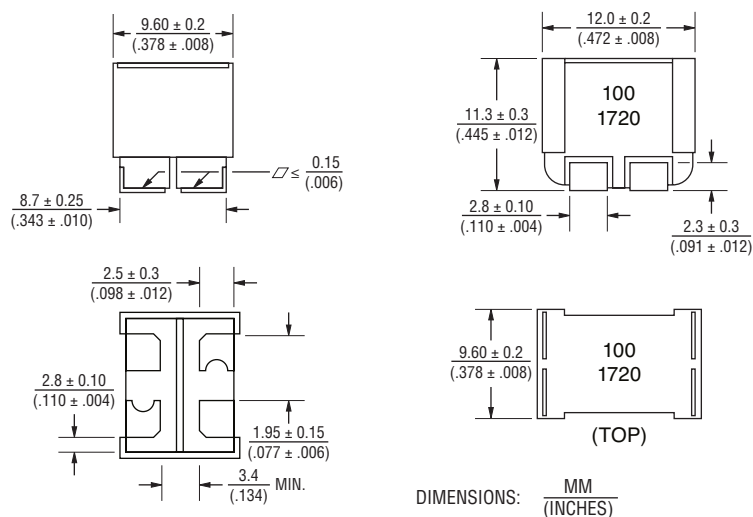
- Class-D amplifier systems
- Class-D output filters

SRF1010DA Series – Dual-Shielded Inductors for Class-D Amplifiers

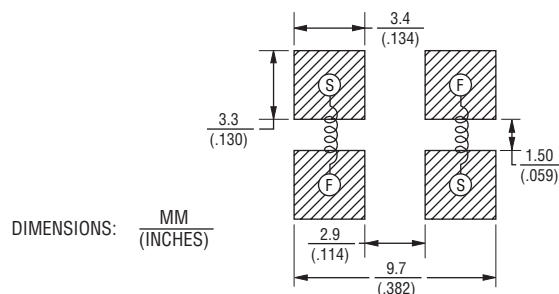
Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		SRF (MHz) Ref.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I rms (A) Typ.	I sat (A) Typ.
	L (μH)	Tol. %					
SRF1010DA-R43M	0.43	± 20 %	60	1.9	2.3	27	38.0
SRF1010DA-5R6M	5.6	± 20 %	15	20	23	7.5	11.0
SRF1010DA-7R5M	7.5	± 20 %	14	25	28	6.8	10.0
SRF1010DA-100M	10	± 20 %	12	30.5	32.6	5.6	7.4
SRF1010DA-150M	15	± 20 %	10	43.5	45.5	4.6	5.5

Product Dimensions



Recommended Layout



General Specifications

Operating Temperature
.....-55 °C to +155 °C
(Temperature rise included)
Storage Temperature (Component)
.....-55 °C to +155 °C
Rated Current
..... Inductance drops 30 % at Isat
Temperature Rise ... 40 °C at rated Irms
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

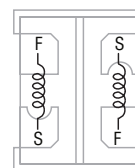
Core..... Metal alloy powder
Wire Enameled copper
Terminal Finish Sn/Ni
Packaging..... 300 pcs. per 13-inch reel

How to Order

SRF1010DA - 100M

Model
Value Code (see table)

Schematic



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

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

**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.

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BOURNS®

Temperature (°C)

25 150 200 217

480 seconds max.

60 ~ 180 seconds

60 ~ 150 seconds

260 °C / 10 seconds max.

245 °C / 20~40 seconds

PRE-HEATING SOLDERING NATURAL COOLING

Time (Seconds)

REFLOW TIMES: 3 MAX.

Technical drawing of a 300-piece reel of 1608 components. The drawing includes three views: a top view of a single component, a side view of the reel, and a front view of the reel showing the layout of components. Dimensions are provided in both millimeters and inches.

Top View (Single Component):

- Overall diameter: 330 ± 0.5 (12.99) DIA.
- Inner diameter: 2.0 ± 0.5 (.079 \pm .020)
- Mounting tab diameter: $13 \pm 0.5 / - 0.2$ (.512 \pm .020 / - .008) DIA.
- Reel diameter: 100.0 ± 2.0 (3.937 \pm .079)
- Carrier thickness: $24.4 \pm 2 / - 0$ (.961 \pm .079 / - 0)

Side View (Reel):

- Thickness: 0.10 (.004) MAX.
- Embossed cavity
- Embossed carrier
- Carrier width: 24 (.945)

Front View (Reel Layout):

- Overall width: 4.0 (.157)
- Component width: 16.0 ± 0.1 (.630 \pm .004)
- Carrier width: 24.0 ± 0.3 (.945 \pm .012)
- Carrier thickness: 11.5 ± 0.1 (.453 \pm .004)
- Carrier width: 12.5 ± 0.1 (.492 \pm .004)
- Carrier thickness: 11.55 ± 0.1 (.455 \pm .004)
- Carrier width: 0.50 ± 0.05 (.020 \pm .002)
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