



Features

- High saturation current - up to 8 A
- Inductance range: 1.5 to 820 μ H
- Heating current up to 7.2 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

- Automotive systems:
 - Driver assistant
 - Information
 - Entertainment
 - Lighting
- DC/DC converters
- Power supplies

SDE1006A Series - SMD Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance		Test Freq./Voltage	SRF (MHz) Typ.	DCR (Ω) Max.	I rms (A)	I sat (A)
	L (μ H)	Tol. (%)					
SDE1006A-1R5M	1.5	20	1 MHz / 1 V	69.6	0.018	7.2	8.0
SDE1006A-2R2M	2.2	20	1 MHz / 1 V	57.7	0.021	6.0	6.6
SDE1006A-3R3M	3.3	20	1 MHz / 1 V	48.8	0.024	5.4	6.0
SDE1006A-3R9M	3.9	20	1 MHz / 1 V	40.6	0.027	5.2	5.7
SDE1006A-4R7M	4.7	20	1 MHz / 1 V	37.4	0.036	4.7	5.2
SDE1006A-5R6M	5.6	20	1 MHz / 1 V	35.6	0.04	4.5	5.0
SDE1006A-6R8M	6.8	20	1 MHz / 1 V	32.1	0.044	4.2	4.6
SDE1006A-8R2M	8.2	20	1 MHz / 1 V	27.9	0.048	4.1	4.3
SDE1006A-100M	10	20	1 MHz / 1 V	25	0.06	3.8	4.0
SDE1006A-120M	12	20	1 MHz / 1 V	23	0.07	3.6	3.8
SDE1006A-150M	15	20	1 MHz / 1 V	19.8	0.08	3.4	3.6
SDE1006A-180M	18	20	1 MHz / 1 V	19.3	0.09	2.8	3.0
SDE1006A-220M	22	20	1 MHz / 1 V	16	0.1	2.6	2.8
SDE1006A-270M	27	20	1 MHz / 1 V	13.3	0.11	2.3	2.5
SDE1006A-330M	33	20	1 MHz / 1 V	12.1	0.12	2.2	2.4
SDE1006A-390M	39	20	1 MHz / 1 V	12	0.14	1.9	2.1
SDE1006A-470K	47	10	1 MHz / 1 V	11	0.17	1.8	1.95
SDE1006A-560K	56	10	1 MHz / 1 V	10.2	0.19	1.7	1.8
SDE1006A-680K	68	10	1 MHz / 1 V	9.4	0.22	1.6	1.7
SDE1006A-820K	82	10	1 MHz / 1 V	8.8	0.25	1.5	1.6
SDE1006A-101K	100	10	1 KHz / 1 V	7.3	0.35	1.3	1.4
SDE1006A-121K	120	10	1 KHz / 1 V	6.6	0.4	1.2	1.3
SDE1006A-151K	150	10	1 KHz / 1 V	6.6	0.47	1.1	1.2
SDE1006A-181K	180	10	1 KHz / 1 V	6.1	0.63	1.0	1.1
SDE1006A-221K	220	10	1 KHz / 1 V	5.3	0.73	0.85	1.0
SDE1006A-271K	270	10	1 KHz / 1 V	4.3	0.97	0.75	0.85
SDE1006A-331K	330	10	1 KHz / 1 V	4.3	1.15	0.7	0.75
SDE1006A-391K	390	10	1 KHz / 1 V	3.3	1.3	0.65	0.7
SDE1006A-471K	470	10	1 KHz / 1 V	3.3	1.48	0.6	0.65
SDE1006A-561K	560	10	1 KHz / 1 V	3.3	1.9	0.55	0.6
SDE1006A-681K	680	10	1 KHz / 1 V	2.8	2.25	0.5	0.55
SDE1006A-821K	820	10	1 KHz / 1 V	2.2	2.55	0.45	0.5

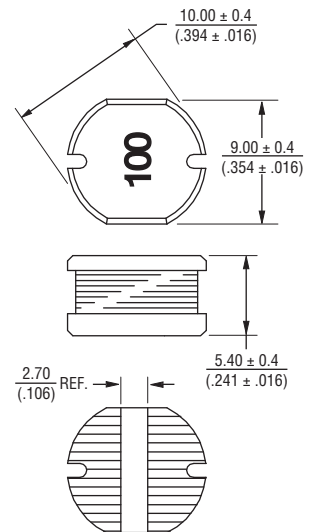
General Specifications

Operating Temperature -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature -40 °C to +125 °C
 Resistance to Soldering Heat +245 °C for 10 sec.
 Temperature Rise 40 °C typ. at rated I rms
 Inductance Drop 10 % typ. at I sat

Materials

Core Ferrite
 Wire Enameled copper
 Terminal Finish Ag/Ni/Sn
 Packaging 800 pcs. per reel

Product Dimensions

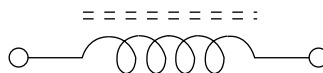


How to Order

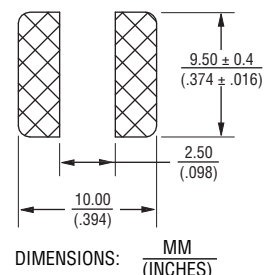
SDE1006A - 100M

Model _____
 Value Code (see table) _____

Electrical Schematic



Recommended Layout



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

** Bourns follows the prevailing definition of "halogen free" in the industry. 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.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

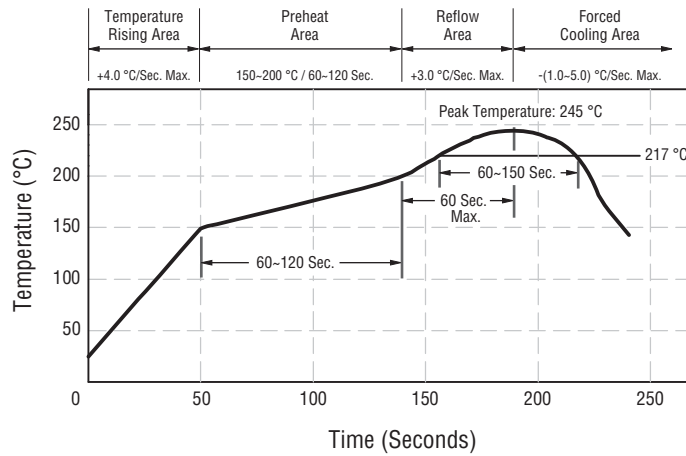
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SDE1006A Series - SMD Power Inductors

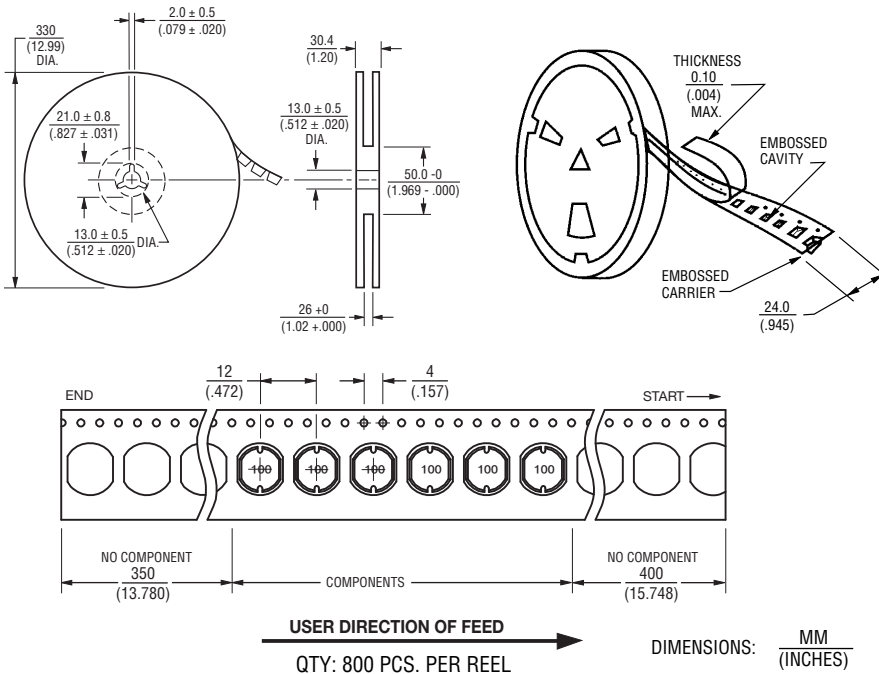
BOURNS®

Soldering Profile

Peak Temperature: 245 °C max.
 Max. Peak Temperature -5 °C: 30 sec. max.
 Max. Time Above 217 °C: 60-150 sec. max.



Packaging Specifications



BOURNS®

Asia-Pacific:
 Tel: +886-2 2562-4117
 Fax: +886-2 2562-4116

Europe:
 Tel: +41-41 768 5555
 Fax: +41-41 768 5510

The Americas:
 Tel: +1-951 781-5500
 Fax: +1-951 781-5700

www.bourns.com

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