



**THE DATASHEET OF
SDE1006A-150M**



*Pb-Free COMPLIANT
& RECC-Q200 QUALIFIED



BOURNS®

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**

SDE1006A Series - SMD Power Inductors

Electrical Specifications @ 25 °C

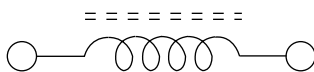
| Bourns Part Number | Inductance | | Test Freq./Voltage | SRF (MHz) Typ. | DCR (Ω) Max. | I rms (A) | I sat (A) |
|--------------------|--------------|----------|--------------------|----------------|-----------------------|-----------|-----------|
| | L (μ H) | Tol. (%) | | | | | |
| SDE1006A-1R5M | 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 |

How to Order

SDE1006A - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



General Specifications

Operating Temperature-40 °C to +125 °C
(Temperature rise included)
Storage Temperature-40 °C to +125 °C
Temperature Rise40 °C typ. at rated I rms
Inductance Drop 10 % typ. at I sat

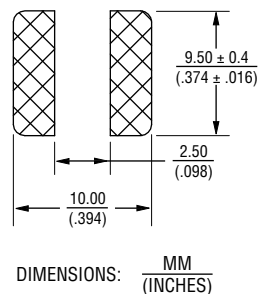
Materials

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

Product Dimensions



Recommended Layout



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.

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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:
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 Email: asiacus@bourns.com

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

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

REV. 11/19

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-  Alternative Solution
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