



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 |

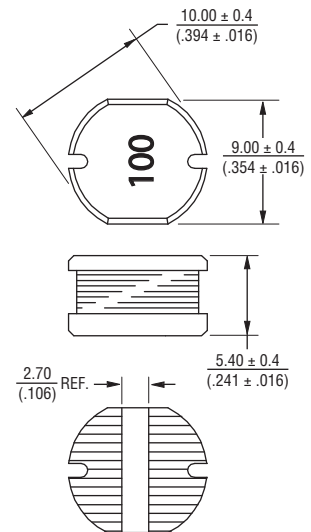
General Specifications

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

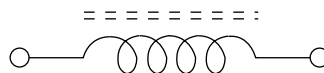


How to Order

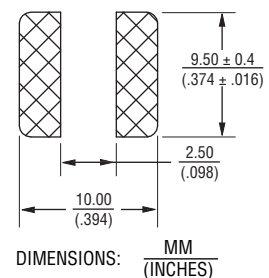
SDE1006A - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



Recommended Layout



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.

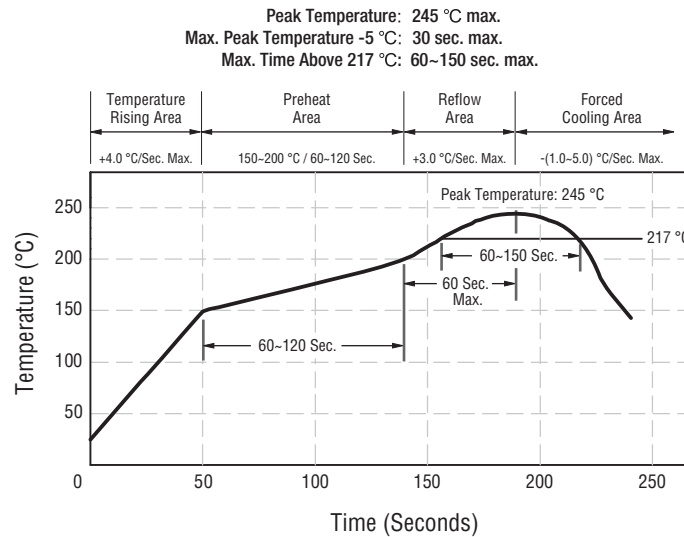
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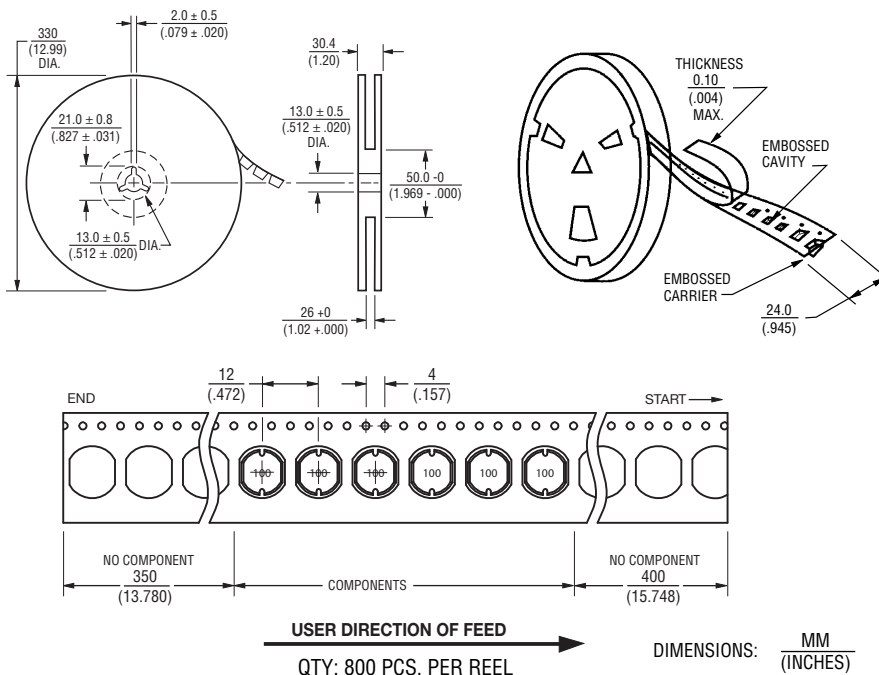
SDE1006A Series - SMD Power Inductors

BOURNS®

Soldering Profile



Packaging Specifications



BOURNS®

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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