## Features

- Shielded construction
- Inductance range: 1 to 100 µH
- Heating current up to 3.6 A
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

## Applications

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

BOURNS®

# SRR3818A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz/0.1 V | | SRF (MHz) Typ. | DCR (mΩ) | | I rms[1] (A) Typ. | I rms[2] (A) Typ. | I sat (A) |
|---|---|---|---|---|---|---|---|---|
| | L (µH) | Tol. (%) | | Typ. | Max. | | | |
| SRR3818A-1R0Y | 1.0 | ± 30 | 165 | 27.5 | 37 | 2.75 | 3.6 | 2.1 |
| SRR3818A-1R5Y | 1.5 | ± 30 | 125 | 33 | 47 | 2.5 | 3.1 | 1.6 |
| SRR3818A-2R2Y | 2.2 | ± 30 | 95 | 45.5 | 60 | 2 | 2.6 | 1.4 |
| SRR3818A-2R7Y | 2.7 | ± 30 | 90 | 49.5 | 65 | 1.9 | 2.5 | 1.3 |
| SRR3818A-3R3Y | 3.3 | ± 30 | 75 | 64.5 | 85 | 1.7 | 2.1 | 1.15 |
| SRR3818A-3R9Y | 3.9 | ± 30 | 70 | 80 | 105 | 1.6 | 2 | 1.05 |
| SRR3818A-4R7Y | 4.7 | ± 30 | 60 | 90 | 120 | 1.5 | 1.9 | 0.95 |
| SRR3818A-6R8Y | 6.8 | ± 30 | 50 | 125 | 160 | 1.25 | 1.6 | 0.8 |
| SRR3818A-100M | 10 | ± 20 | 40 | 180 | 235 | 1 | 1.3 | 0.65 |
| SRR3818A-150M | 15 | ± 20 | 30 | 260 | 340 | 0.8 | 1.05 | 0.55 |
| SRR3818A-220M | 22 | ± 20 | 25 | 395 | 500 | 0.65 | 0.8 | 0.43 |
| SRR3818A-330M | 33 | ± 20 | 20 | 590 | 740 | 0.5 | 0.65 | 0.34 |
| SRR3818A-470M | 47 | ± 20 | 15 | 825 | 1030 | 0.45 | 0.56 | 0.3 |
| SRR3818A-680M | 68 | ± 20 | 13 | 1280 | 1600 | 0.38 | 0.46 | 0.24 |
| SRR3818A-101M | 100 | ± 20 | 11 | 2040 | 2600 | 0.28 | 0.34 | 0.2 |

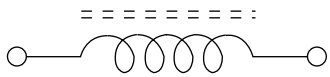
### How to Order

**SRR3818A - 1R0Y**

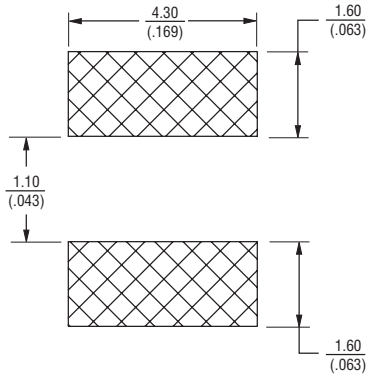
Model

Value Code (see table)

### Electrical Schematic



### Recommended Layout




DIMENSIONS: MM (INCHES)

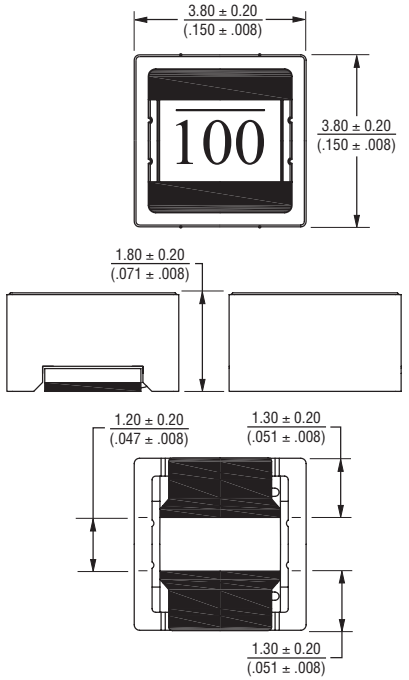
### General Specifications

Operating Temp..... -40 °C to +150 °C
(Temperature rise included)
Storage Temperature .. -40 °C to +150 °C
Temperature Rise
..... 20 °C typ. at rated Irms[1]
40 °C typ. at rated Irms[2]
Rated Current
..... Inductance drops 35 % at Isat
Moisture Sensitivity Level..... 1
ESD Classification (HBM).....3B

### Materials

Core.....Ferrite
Wire .....Enameled copper
Terminal Finish .....Sn
Packaging..... 1000 pcs. per 7-inch reel

### Product Dimensions

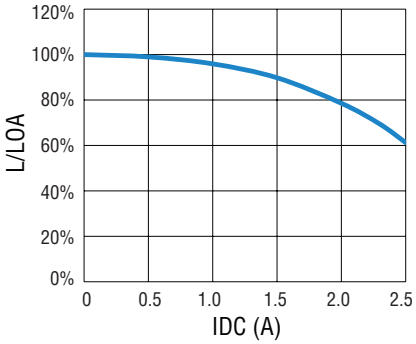



DIMENSIONS: MM (INCHES)

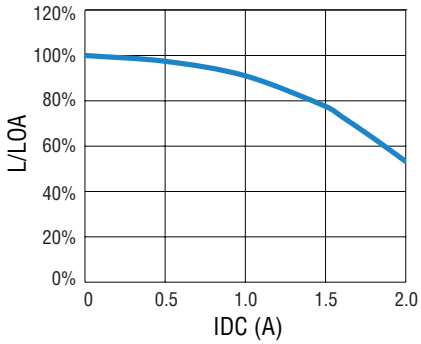
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

## Inductance vs. IDC

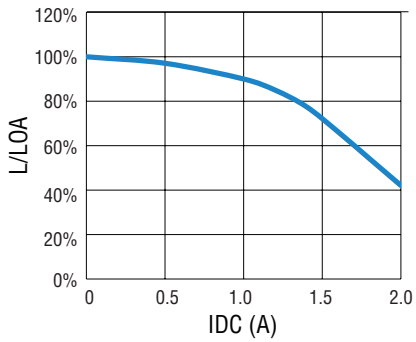
SRR3818A-1R0Y



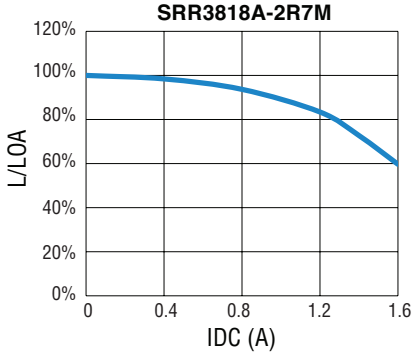

SRR3818A-1R5Y



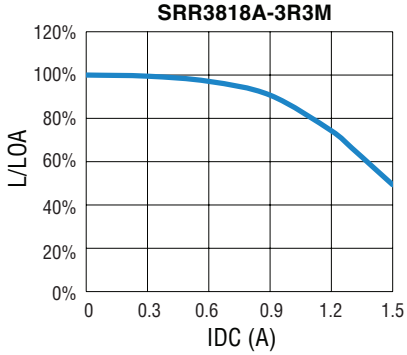

SRR3818A-2R2M



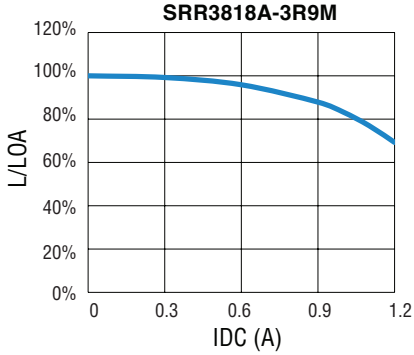

SRR3818A-2R7M



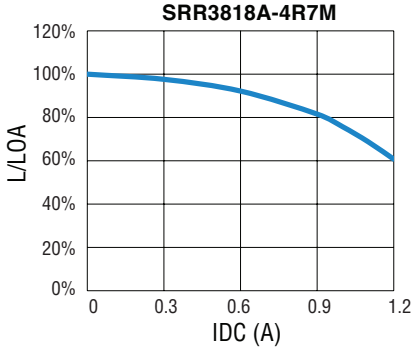

SRR3818A-3R3M



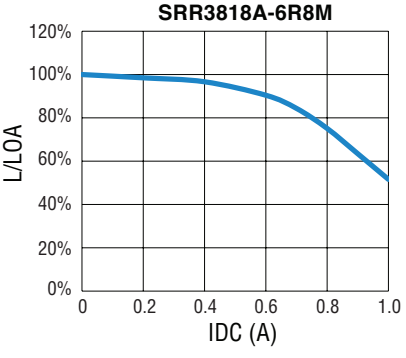

SRR3818A-3R9M



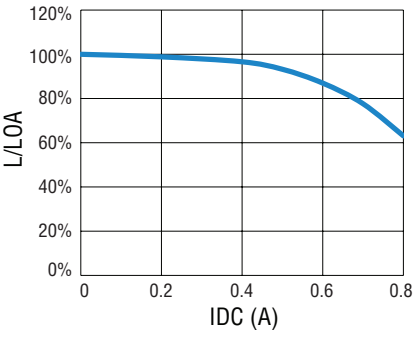

SRR3818A-4R7M



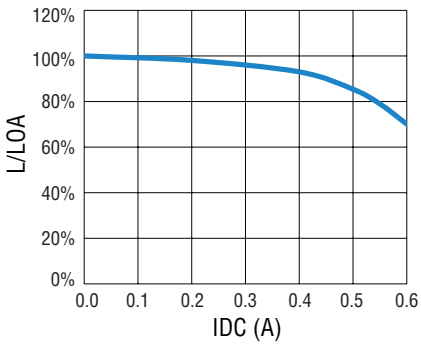

SRR3818A-6R8M



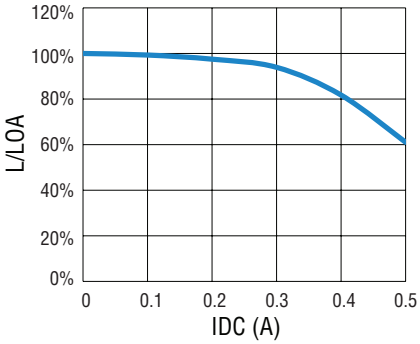

SRR3818A-100M



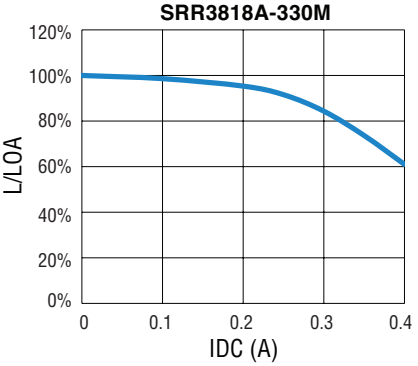

SRR3818A-150M




SRR3818A-220M




SRR3818A-330M

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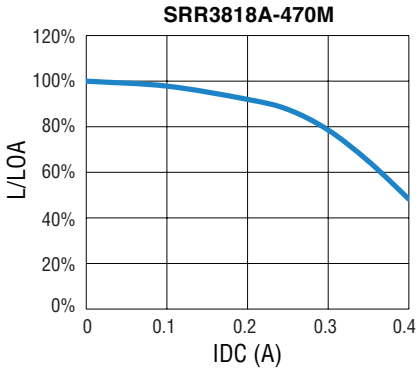
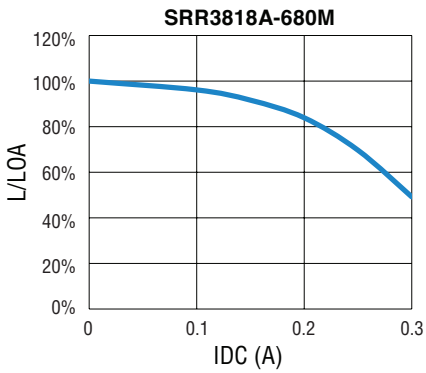
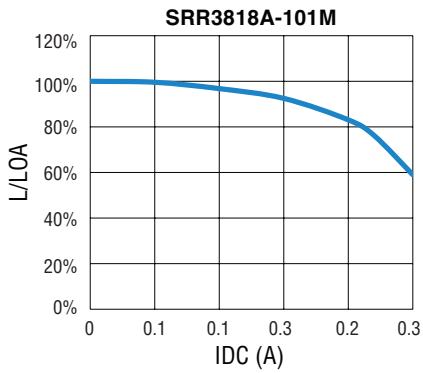
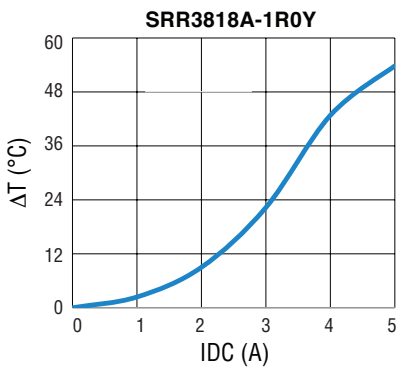
## Inductance vs. IDC (Continued)

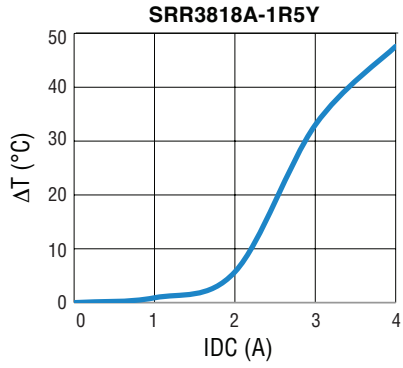


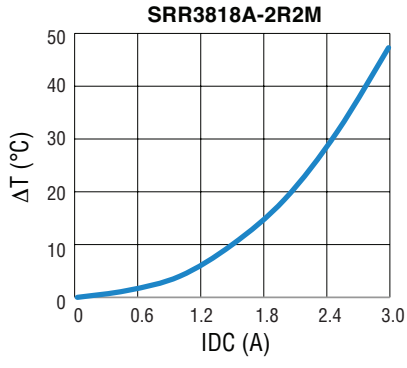



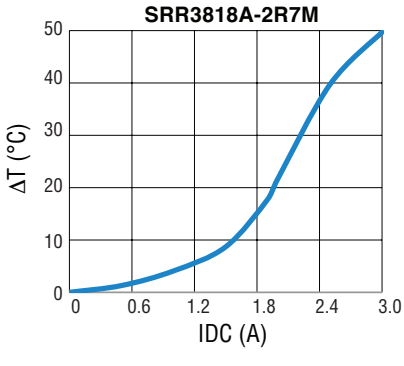



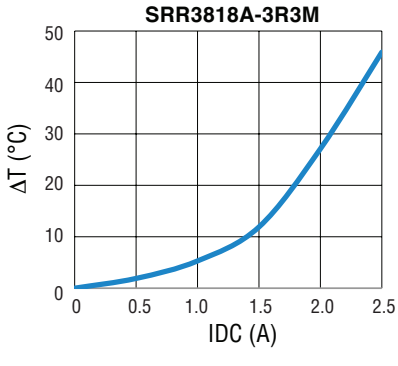

## Temperature vs. IDC

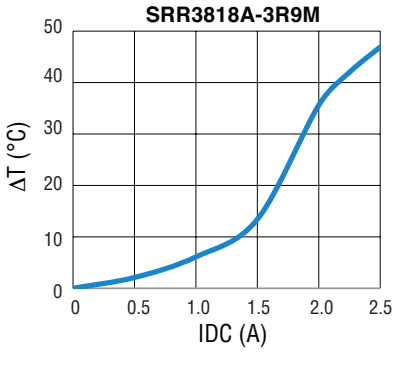


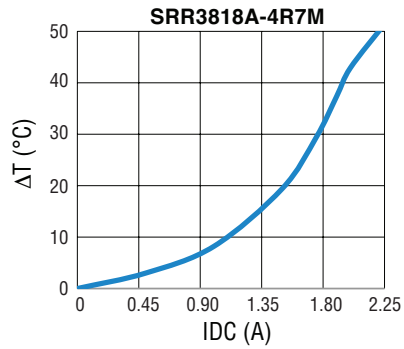



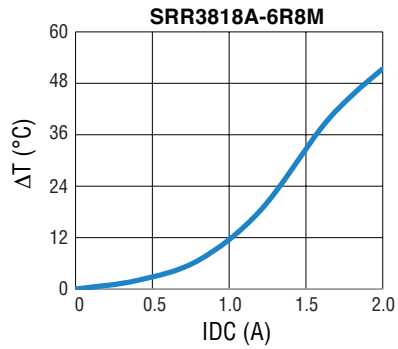



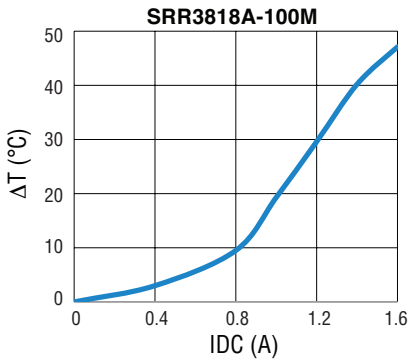

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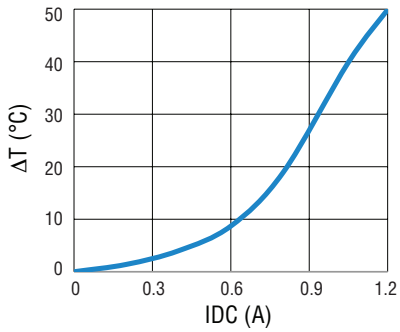
## Temperature vs. IDC (Continued)

**SRR3818A-150M**

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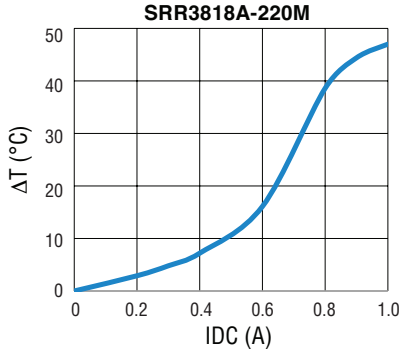
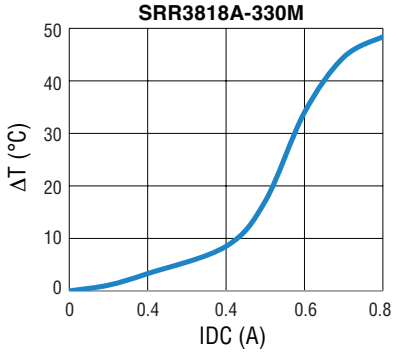
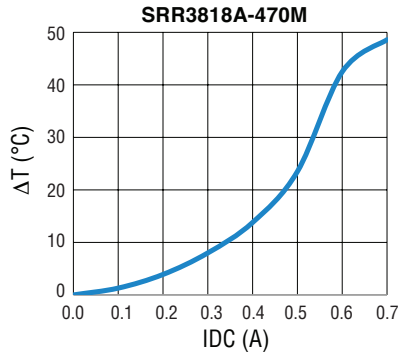


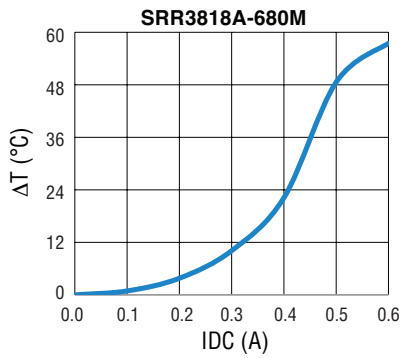

**SRR3818A-330M**



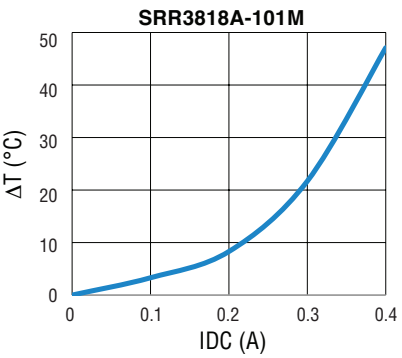

**SRR3818A-470M**




**SRR3818A-680M**




**SRR3818A-101M**

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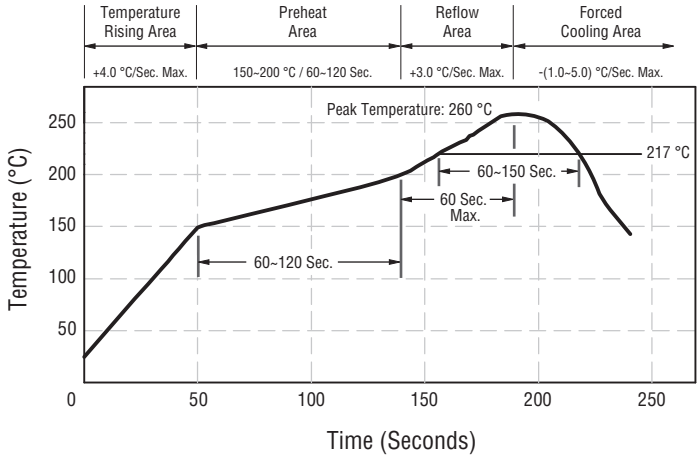
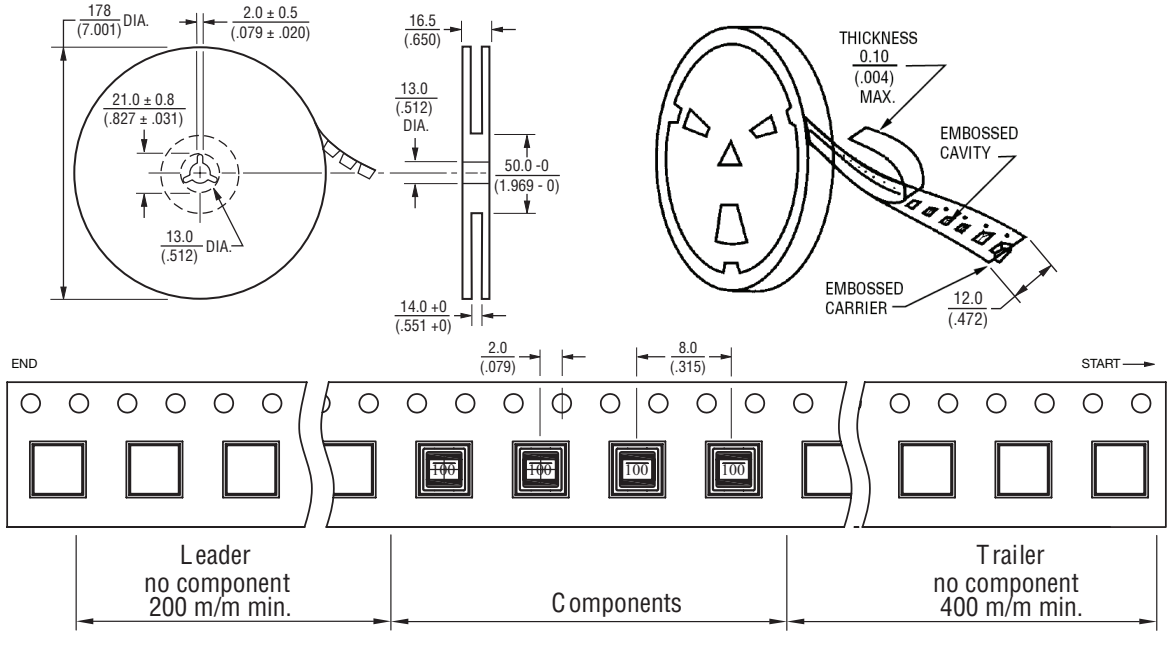
## Soldering Profile




**Peak Temperature: 260 °C max.**
**Max. Peak Temperature -5 °C: 30 sec. max.**
**Max. Time Above 217 °C: 60~150 sec. max.**

## Packaging Specifications




**USER DIRECTION OF FEED**
QTY: 1000 PCS. PER REEL

DIMENSIONS: MM (INCHES)

07/17

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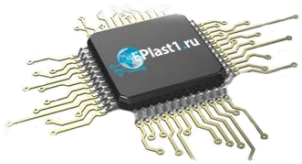
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.