



## Features

- Lead free device (RoHS compliant\*)
- Low profile
- High current capability
- UL 94V-0 classification

## Applications

- High frequency switching power supplies
- Inverters
- Free wheeling
- Polarity protection

## CD1206-B220~B2100 – Surface Mount Schottky Rectifier Diode

### General Information

The markets of portable communications, computing and video equipment are challenging the semiconductor industry to develop increasingly smaller electronic components. Bourns offers Schottky Rectifier Diodes for rectification applications, in compact chip package 1206 size format, which offer PCB real estate savings and are considerably smaller than most competitive parts. The Schottky Rectifier Diodes offer a forward current of 2 A with a repetitive peak reverse voltage of 20 V up to 100 V.

Bourns® Chip Diodes conform to JEDEC standards, are easy to handle on standard pick and place equipment and their flat configuration minimizes roll away.

### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Parameter                                                                                         | Symbol                               | CD1206-  |      |      |       | Unit |
|---------------------------------------------------------------------------------------------------|--------------------------------------|----------|------|------|-------|------|
|                                                                                                   |                                      | B220     | B240 | B260 | B2100 |      |
| Maximum Repetitive Peak Reverse Voltage                                                           | V <sub>RRM</sub>                     | 20       | 40   | 60   | 100   | V    |
| Maximum RMS Voltage                                                                               | V <sub>RMS</sub>                     | 14       | 28   | 42   | 70    | V    |
| Maximum DC Blocking Voltage                                                                       | V <sub>DC</sub>                      | 20       | 40   | 60   | 100   | V    |
| Maximum Average Forward Rectified Current <sup>1</sup>                                            | I <sub>(AV)</sub>                    | 2        |      |      |       | A    |
| DC Reverse Current @ Rated DC Blocking Voltage (@T <sub>J</sub> = 25 °C)                          | I <sub>R</sub>                       | 0.5      |      |      |       | mA   |
| DC Reverse Current @ Rated DC Blocking Voltage (@T <sub>J</sub> = 100 °C)                         | I <sub>R</sub>                       | 20       |      | 10   |       | mA   |
| Maximum Instantaneous Forward Voltage @ 2 A <sup>2</sup>                                          | V <sub>F</sub>                       | 0.5      |      | 0.7  | 0.85  | V    |
| Typical Thermal Resistance <sup>3</sup>                                                           | R <sub>θJA</sub><br>R <sub>θJL</sub> | 75<br>17 |      |      |       | °C/W |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                     | 40       |      |      |       | A    |

Notes:

1 See Forward Derating Curve.

2 Pulse test width  $PW = 300\ \mu\text{sec}$ , 1 % duty cycle.

3 Mounted on P.C. board with  $0.2 \times 0.2$  " (5.0 x 5.0 mm) copper pad areas.

### Thermal Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Parameter                   | Symbol    | CD1206-B220~B2100 | Unit             |
|-----------------------------|-----------|-------------------|------------------|
| Operating Temperature Range | $T_J$     | -55 to +125       | $^\circ\text{C}$ |
| Storage Temperature Range   | $T_{STG}$ | -55 to +150       | $^\circ\text{C}$ |

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.

Specifications are subject to change without notice.

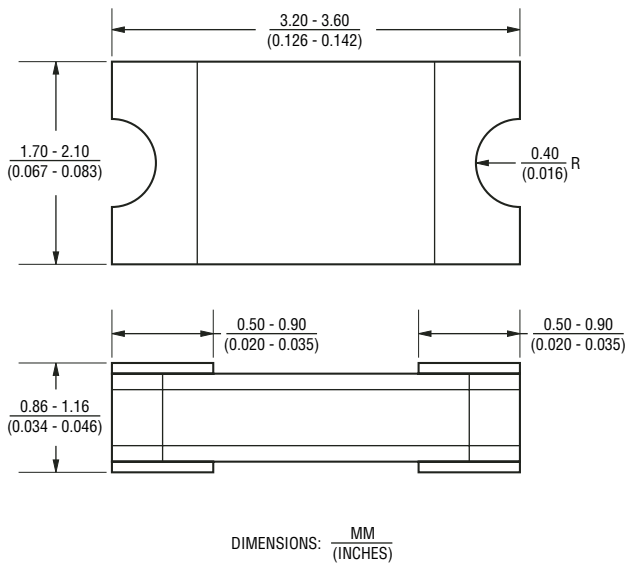
Customers should verify actual device performance in their specific applications.

## CD1206-B220~B2100 – Surface Mount Schottky Rectifier Diode

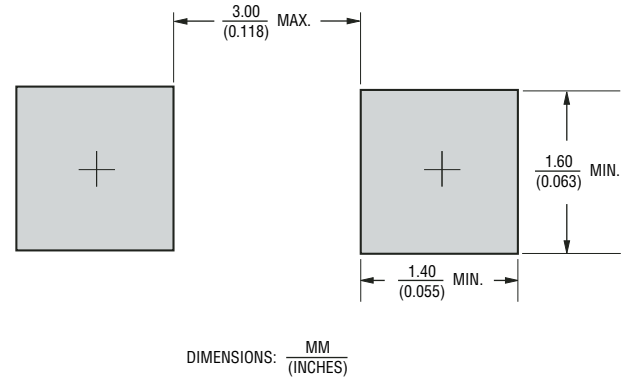
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### Product Dimensions

This is a lead free product, packaged with FRP substrate and is epoxy underfilled. The terminals are pure tin plated and are solderable per MIL-STD-750, Method 2026. The package weighs approximately 0.02 g. The package and dimensions are shown below.



### Recommended Pad Layout



### How To Order

**CD 1206 - B 2 20**

Common Code \_\_\_\_\_  
 CD = Chip Diode  
 Package \_\_\_\_\_  
 1206  
 Model Series \_\_\_\_\_  
 B = Schottky Barrier Diode  
 Forward Current  $I_{AV}$  \_\_\_\_\_  
 2 = 2 A  
 Reverse Voltage \_\_\_\_\_  
 20 = 20 V  
 40 = 40 V  
 60 = 60 V  
 100 = 100 V

### Physical Specifications

Case .....1206 (3216) Molded plastic  
 Terminals .....Solder plated, solderable per MIL-STD-750,  
 Method 2026  
 Polarity .....Indicated by cathode band  
 Mounting Position .....Any

### Typical Part Marking

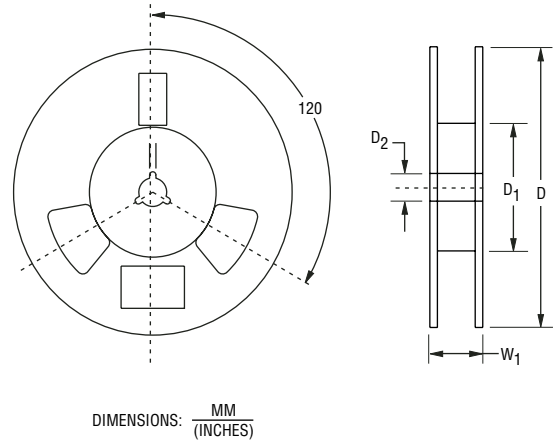
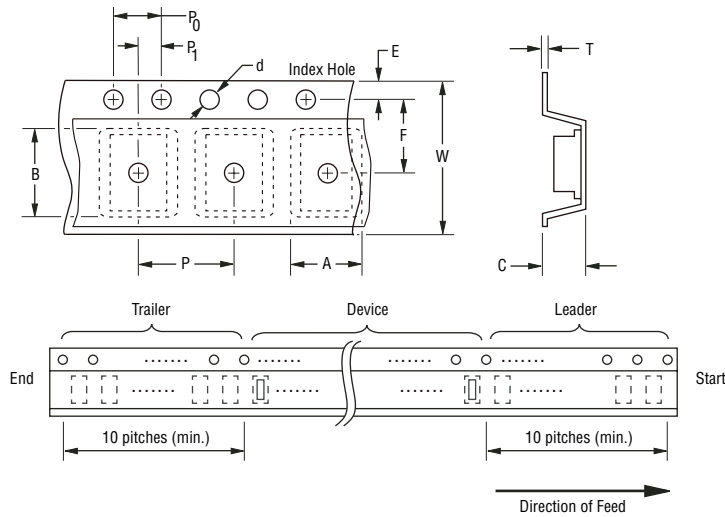
CD1206-B220 ..... **B** 220  
 CD1206-B240 ..... **B** 240  
 CD1206-B260 ..... **B** 260  
 CD1206-B2100 ..... **B** 2100

# CD1206-B220~B2100 – Surface Mount Schottky Rectifier Diode

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## Packaging Information

The product will be dispensed in Tape and Reel format (see diagram below).



Devices are packed in accordance with EIA standard RS-481-A and specifications shown here.

| Item                   | Symbol         | 1206                                      |
|------------------------|----------------|-------------------------------------------|
| Carrier Width          | A              | $\frac{1.70 \pm 0.10}{(0.067 \pm 0.004)}$ |
| Carrier Length         | B              | $\frac{3.40 \pm 0.10}{(0.134 \pm 0.004)}$ |
| Carrier Depth          | C              | $\frac{1.25 \pm 0.10}{(0.049 \pm 0.004)}$ |
| Sprocket Hole          | d              | $\frac{1.55 \pm 0.05}{(0.061 \pm 0.002)}$ |
| Reel Outside Diameter  | D              | $\frac{178}{(7.008)}$                     |
| Reel Inner Diameter    | D <sub>1</sub> | $\frac{60.0}{(2.362)}$ Min.               |
| Feed Hole Diameter     | D <sub>2</sub> | $\frac{13.0 \pm 0.20}{(0.512 \pm 0.008)}$ |
| Sprocket Hole Position | E              | $\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$ |
| Punch Hole Position    | F              | $\frac{3.50 \pm 0.05}{(0.138 \pm 0.002)}$ |
| Punch Hole Pitch       | P              | $\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$ |
| Sprocket Hole Pitch    | P <sub>0</sub> | $\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$ |
| Embossment Center      | P <sub>1</sub> | $\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$ |
| Overall Tape Thickness | T              | $\frac{0.20 \pm 0.05}{(0.008 \pm 0.002)}$ |
| Tape Width             | W              | $\frac{8.00 \pm 0.20}{(0.315 \pm 0.008)}$ |
| Reel Width             | W <sub>1</sub> | $\frac{13.5}{(0.531)}$ Max.               |
| Quantity per Reel      | —              | 3,000                                     |

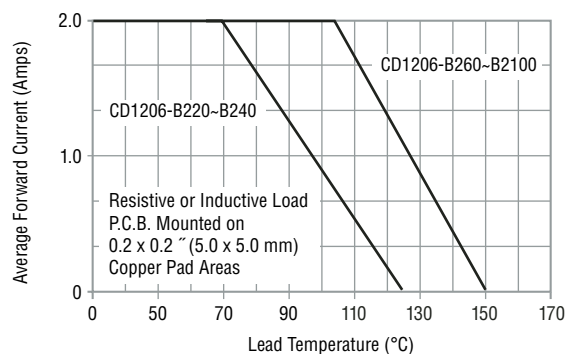
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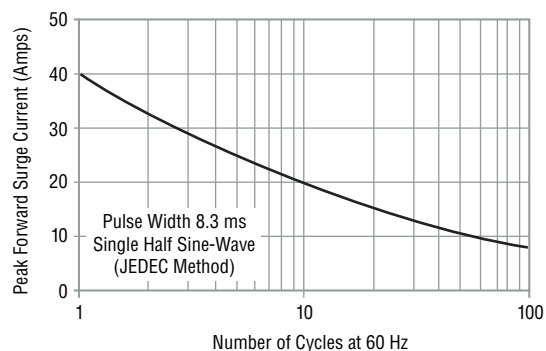
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### Performance Graphs

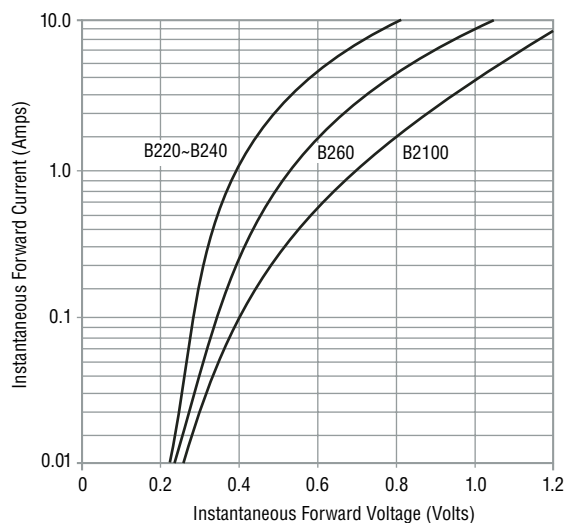
#### Forward Current Derating Curve



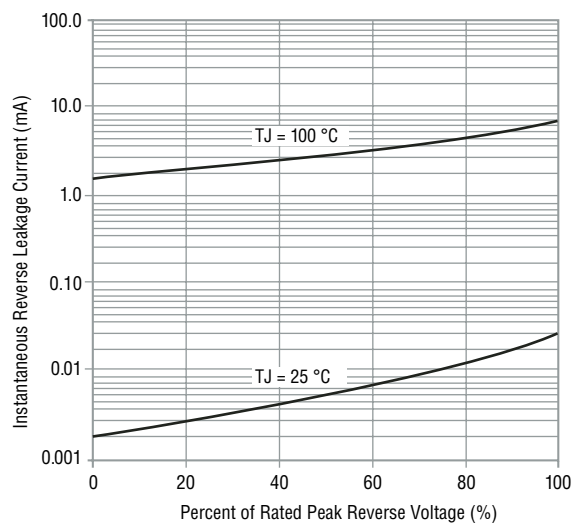
#### Maximum Non-Repetitive Surge Current



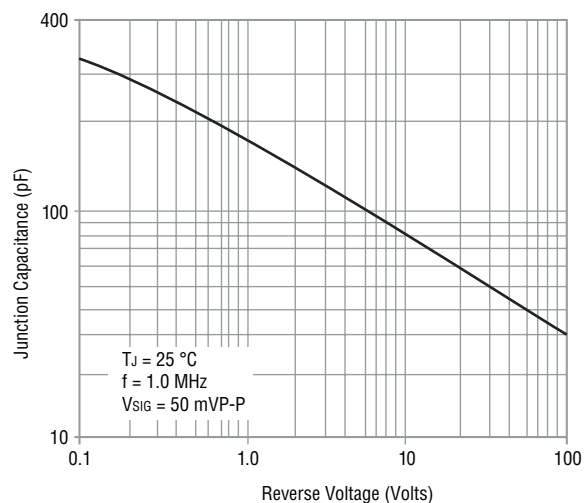
#### Typical Forward Characteristics



#### Typical Reverse Characteristics



#### Typical Junction Capacitance



*Reliable Electronic Solutions*

#### 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

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REV. 10/07

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С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)