

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere**

**FEATURES**

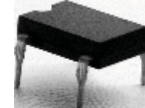
- \* Good for automation insertion
- \* Surge overload rating - 40 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**FEATURES**

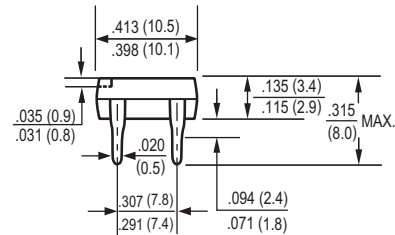
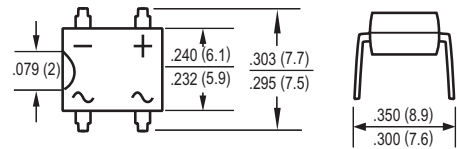
- \* Epoxy : UL flammability classification 94V-0
- \* UL listed under the recognized component directory, file #E94233.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**BDB**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS                                                                                           | SYMBOL           | BDB101       | BDB102 | BDB103 | BDB104 | BDB105 | BDB106 | BDB107 | UNITS            |
|---------------------------------------------------------------------------------------------------|------------------|--------------|--------|--------|--------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | VRRM             | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts            |
| Maximum RMS Bridge Input Voltage                                                                  | VRMS             | 35           | 70     | 140    | 280    | 420    | 560    | 700    | Volts            |
| Maximum DC Blocking Voltage                                                                       | VDC              | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts            |
| Maximum Average Forward Output Current at TA = 40°C                                               | IO               | 1.0          |        |        |        |        |        |        | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM             | 40           |        |        |        |        |        |        | Amps             |
| Typical Current Squared Time                                                                      | I <sup>2</sup> T | 6.64         |        |        |        |        |        |        | A <sup>2</sup> S |
| Typical Thermal Resistance from junction to case                                                  | RθJL             | 10           |        |        |        |        |        |        | °C/W             |
| Typical Thermal Resistance from junction to ambient                                               | RθJA             | 65           |        |        |        |        |        |        | °C/W             |
| Operating and Storage Temperature Range                                                           | TJ, TSTG         | -55 to + 150 |        |        |        |        |        |        | °C               |

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS                                            | SYMBOL | BDB101 | BDB102 | BDB103 | BDB104 | BDB105 | BDB106 | BDB107 | UNITS |
|------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Forward Voltage Drop per Bridge Element at 1.0A DC | VF     | 1.0    |        |        |        |        |        |        | Volts |
| Maximum Forward Voltage Drop per Bridge                    | IR     | 1.0    |        |        |        |        |        |        | uAmps |
| DC Blocking Voltage per element                            |        | 0.05   |        |        |        |        |        |        | mAmps |

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2016-09  
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# RATING AND CHARACTERISTIC CURVES( BDB101 THRU BDB107)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

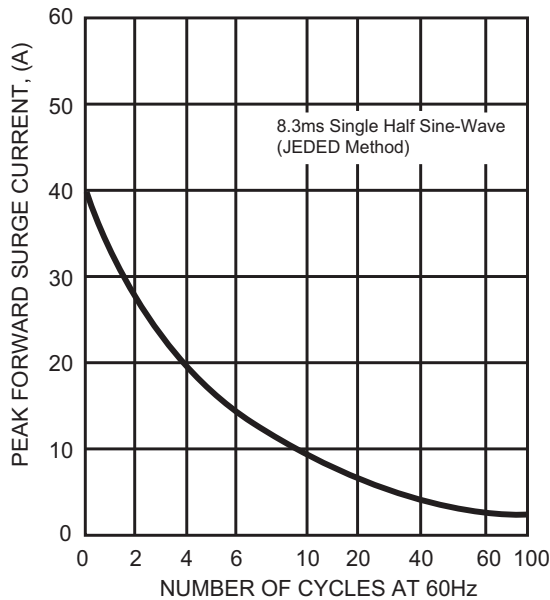


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

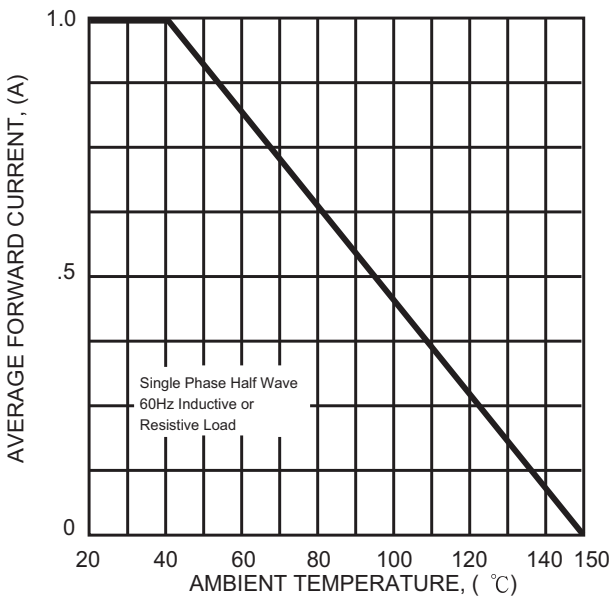


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

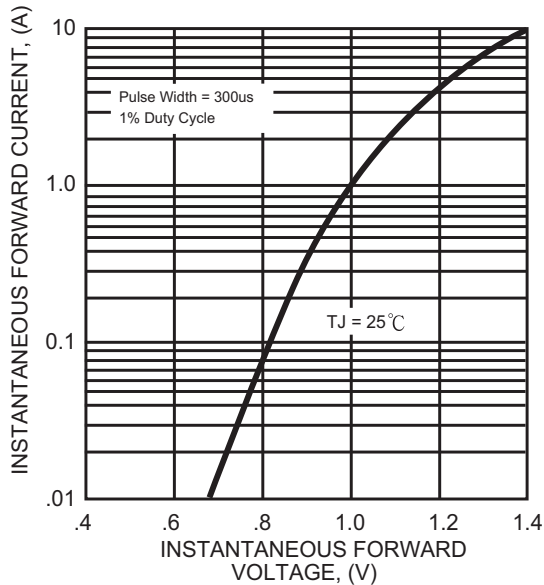
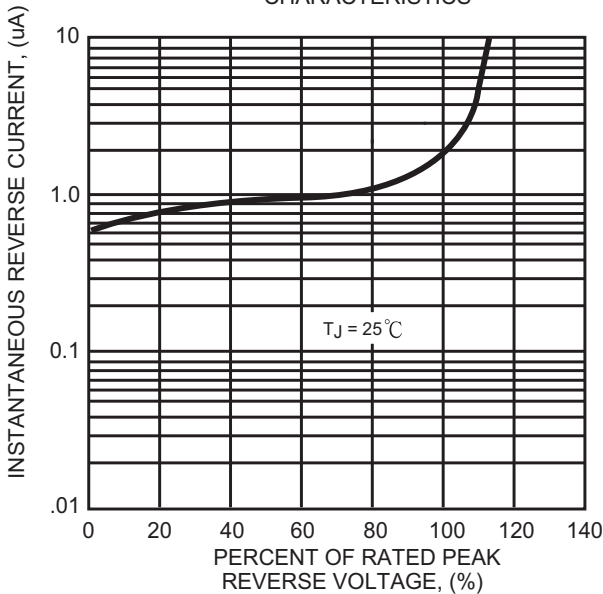


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

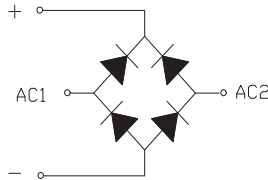




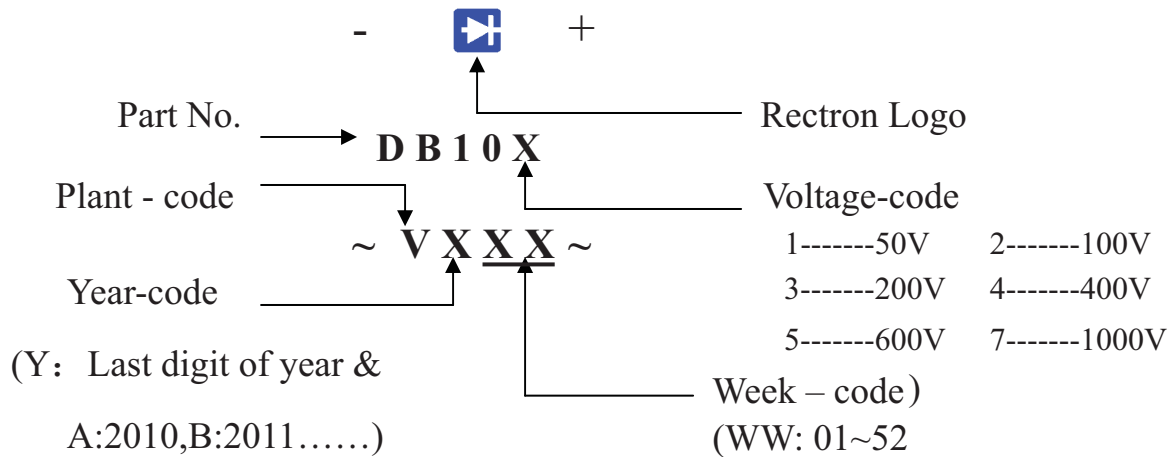
# RECTRON

## Attachment information about BDB10X

### 1. Internal Circuit



### 2. Marking on the body



### 3. Items marked on the inner box and carton

#### 3.1 On the box (for -C)

**CUSTOMER**  
**TYPE**  
**LOT NO.**  
**QUANTITY**  
**Q.A.**  
**DATE**

#### 3.2 On the carton

**CUSTOMER**  
**TYPE**  
**QUANTITY**  
**LOT NO.**  
**REMARK**

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| BDB     | -C           | 2,000      | 450*140*84             | 464*305*283         | 12,000        | 14.18      |

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