

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

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

**FEATURES**

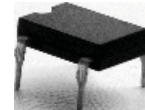
- \* Good for automation insertion
- \* Surge overload rating - 40 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**FEATURES**

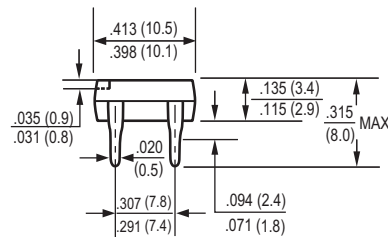
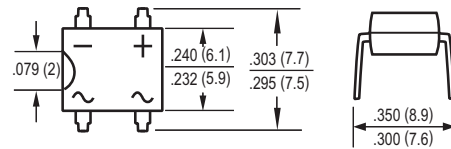
- \* Epoxy : UL flammability classification 94V-0
- \* UL listed under the recognized component directory, file #E94233.

**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 DC Blocking Voltage per element	@TA = 25°C	1.0							uAmps
	@TA = 125°C	0.05							mAmps

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

## RATING AND CHARACTERISTIC CURVES( BDB101 THRU BDB107)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

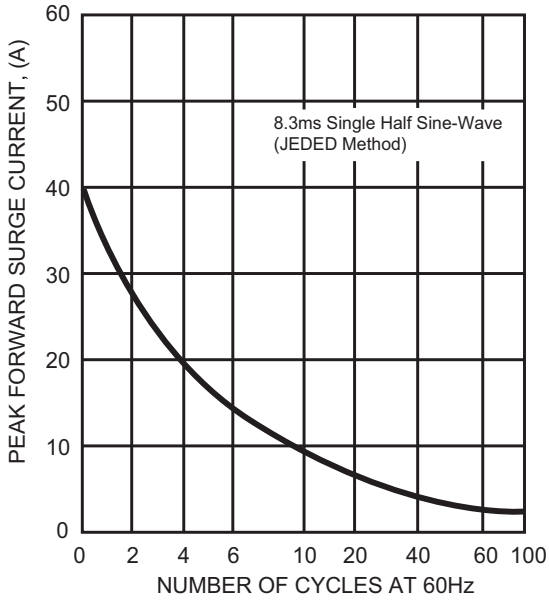


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

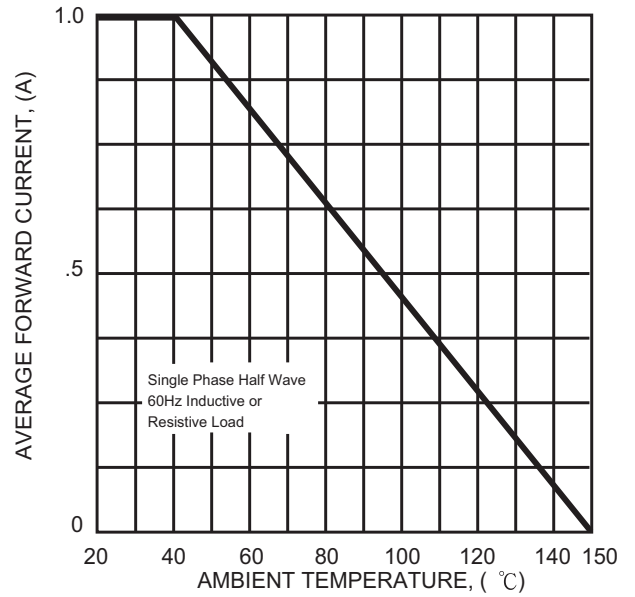


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

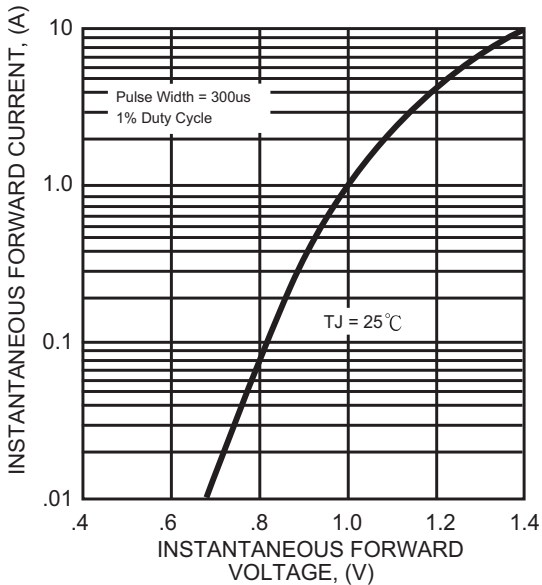
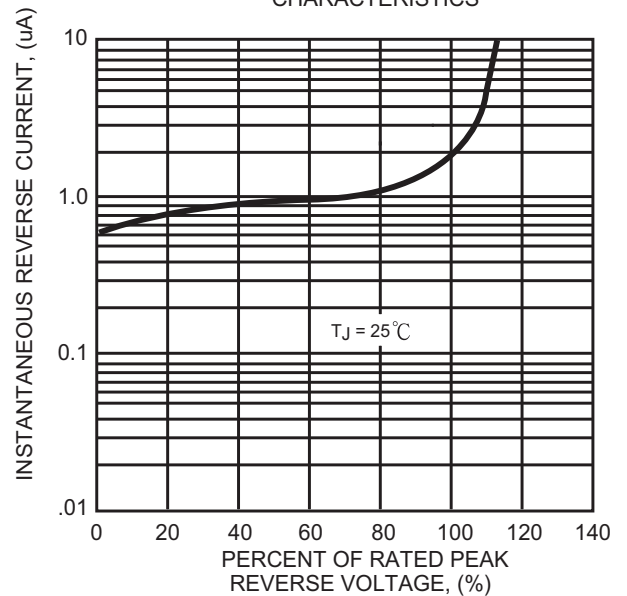


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

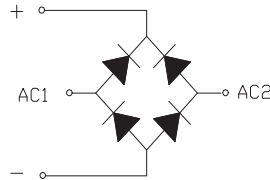




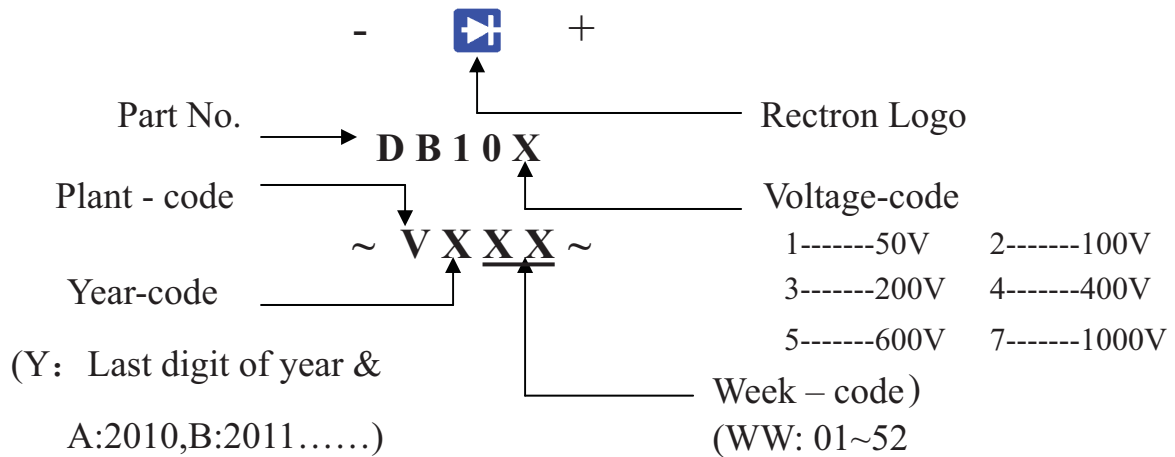
# RECTRON

## 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 (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
BDB	-C	2,000	450*140*84	464*305*283	12,000	14.18