



**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

**DB101  
THRU  
DB107**

**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

**MECHANICAL DATA**

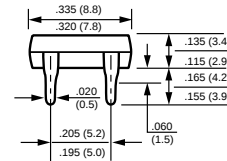
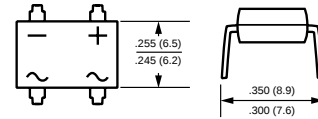
- \* Epoxy: Device has UL flammability classification 94V-O
- \* UL listed under the recognized component directory, file #E94233.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**DB-1**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

| RATINGS                                                                                           | SYMBOL                           | DB101        | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | UNITS               |
|---------------------------------------------------------------------------------------------------|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|---------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | V <sub>RRM</sub>                 | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts               |
| Maximum RMS Bridge Input Voltage                                                                  | V <sub>RMS</sub>                 | 35           | 70    | 140   | 280   | 420   | 560   | 700   | Volts               |
| Maximum DC Blocking Voltage                                                                       | V <sub>DC</sub>                  | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts               |
| Maximum Average Forward Output Current at T <sub>A</sub> = 40°C                                   | I <sub>O</sub>                   | 1.0          |       |       |       |       |       |       | Amps                |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>                 | 40           |       |       |       |       |       |       | Amps                |
| Current Squarad Time                                                                              | I <sup>2</sup> t                 | 6.6          |       |       |       |       |       |       | A <sup>2</sup> /Sec |
| Typical Thermal Resistance (Note 2)                                                               | R <sub>θJA</sub>                 | 40           |       |       |       |       |       |       | °C/W                |
|                                                                                                   | R <sub>θJL</sub>                 | 15           |       |       |       |       |       |       |                     |
| Operating and Storage Temperature Range                                                           | T <sub>J</sub> ,T <sub>STG</sub> | -55 to + 150 |       |       |       |       |       |       | °C                  |

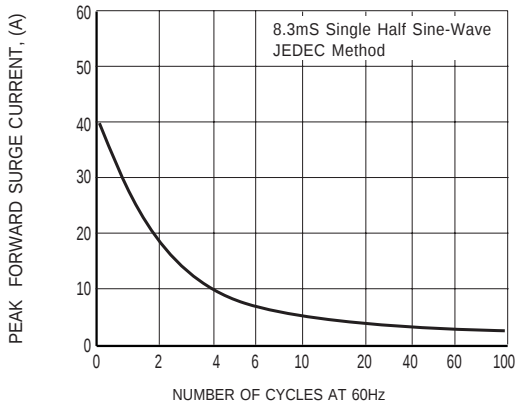
**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

| CHARACTERISTICS                                            | SYMBOL | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | UNITS            |
|------------------------------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|------------------|
| Maximum Forward Voltage Drop per Bridge Element at 1.0A DC | $V_F$  | 1.1   |       |       |       |       |       |       | Volts            |
| Maximum Reverse Current at Rated                           | $I_R$  | 5.0   |       |       |       |       |       |       | $\mu\text{Amps}$ |
| DC Blocking Voltage per element                            |        | 0.5   |       |       |       |       |       |       | mAmps            |

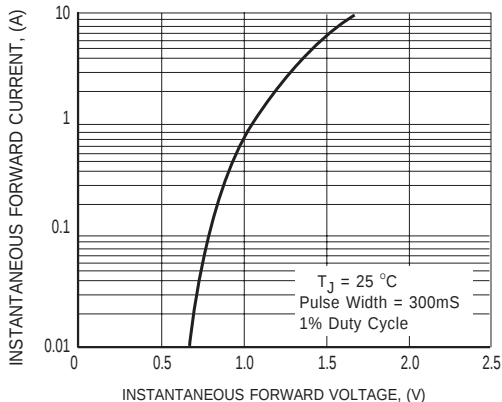
Note: 1. "Fully ROHS compliant", "100% Sn plating (Pb-free).  
2. Thermal Resistance: PCB mounted.  
3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2011-04  
REV:B

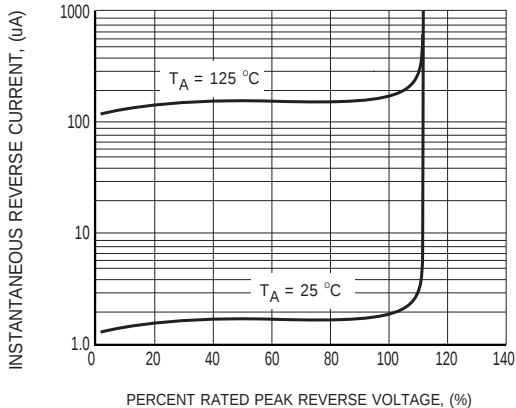
**RATING AND CHARACTERISTICS CURVES ( DB101 THRU DB107 )**



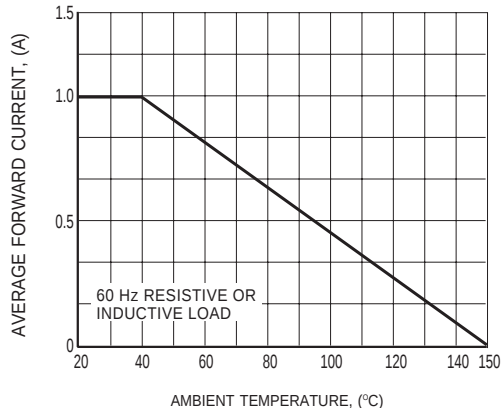
**FIG. 1 - MAXIMUM NON-REPETITIVE  
FORWARD SURGE CURRENT**



**FIG. 2 TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS**



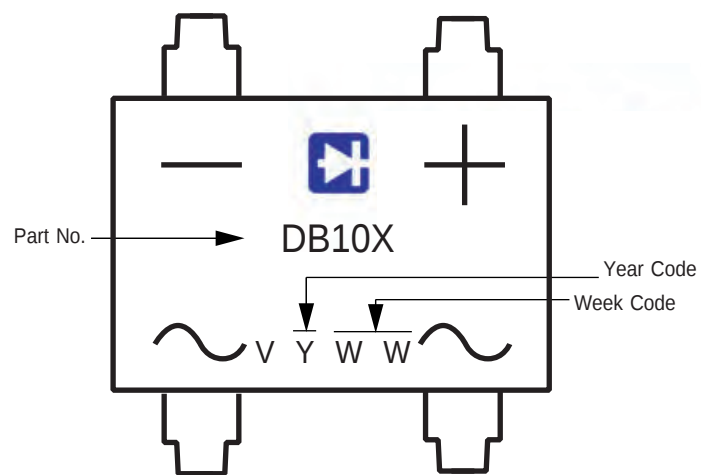
**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



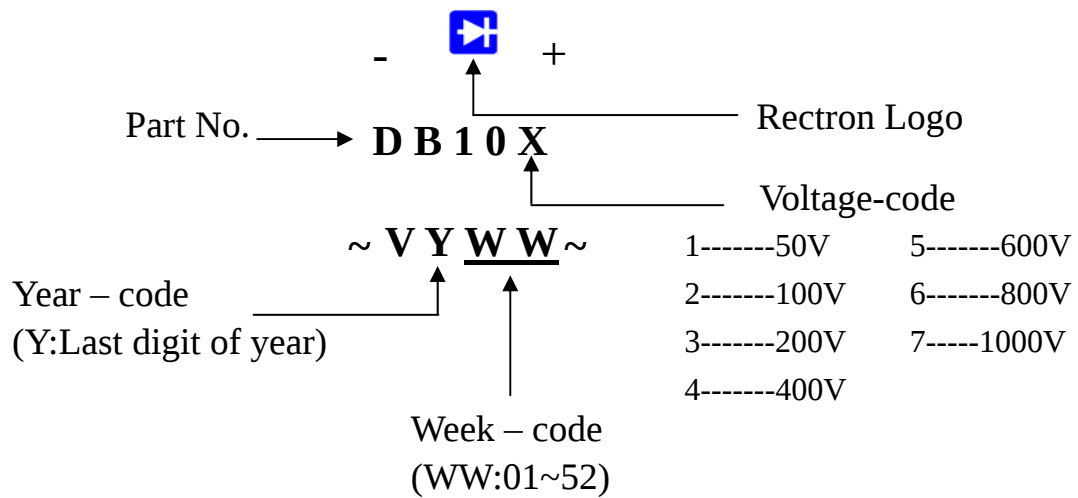
**FIG. 4 TYPICAL FORWARD CURRENT  
DERATING CURVE**

# THE MARKING OF DB10X

Marking Description :



## Marking Description



## 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) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| DB-1    | -C           | 2,500      | 450*140*84             | 464*305*283         | 15,000        | 14.30      |

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