



# WILLAS



## SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

DB101  
THRU  
DB107

### FEATURES

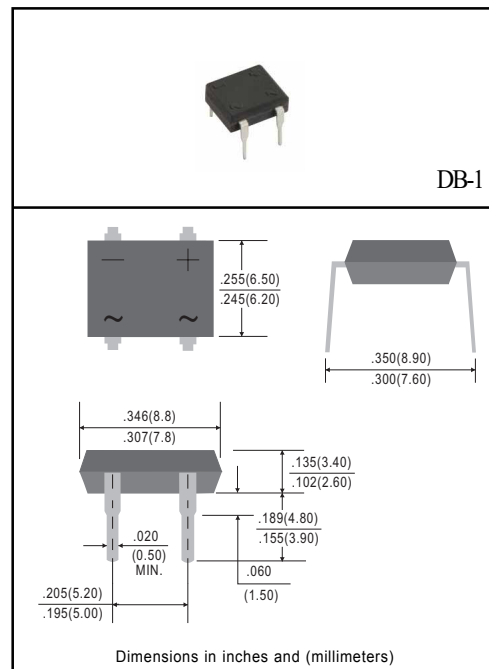
- \* Good for automation insertion
- \* Surge overload rating - 50 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram
- \* RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"

### FEATURES

- \* Epoxy : UL flammability classification 94V-0

### 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%.



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

| RATINGS                                                                                           | SYMBOL   | DB101        | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | 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     | 50           |       |       |       |       |       |       | Amps  |
| Operating and Storage Temperature Range                                                           | TJ, TSTG | -65 to + 150 |       |       |       |       |       |       | °C    |

### ELECTRICAL CHARACTERISTICS (At TA = 25°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 | VF     | 1.1   |       |       |       |       |       |       | Volts |
| Maximum Reverse Current at Rated                           | IR     | 5.0   |       |       |       |       |       |       | uAmps |
| DC Blocking Voltage per element                            |        | 0.5   |       |       |       |       |       |       | mAmps |



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**DB101  
THRU  
DB107**

## RATING AND CHARACTERISTIC CURVES ( DB101 THRU DB107 )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

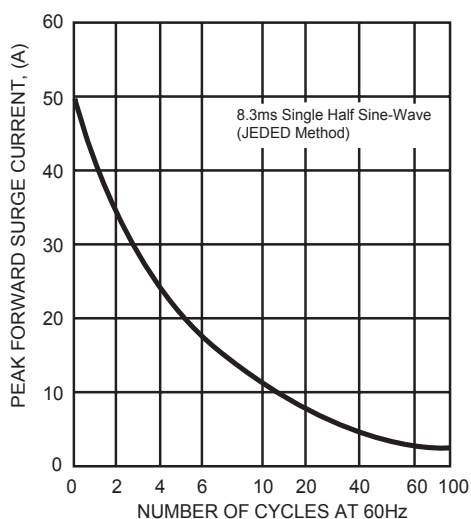


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

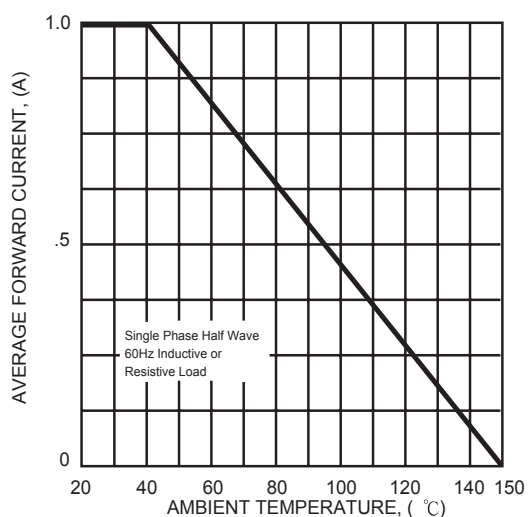


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

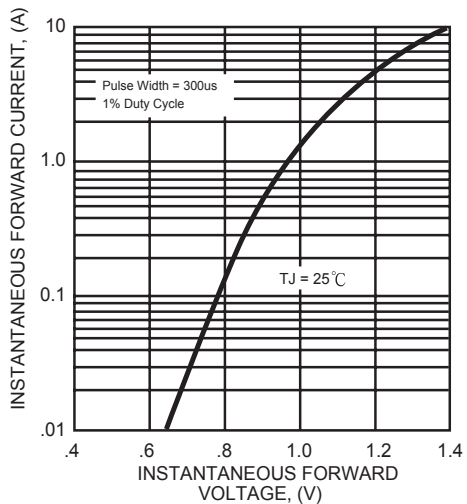


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

