

**1.0 A Single-Phase Glass Passivated Bridge Rectifiers**  
Rectifier Reverse Voltage 50 to 1000V

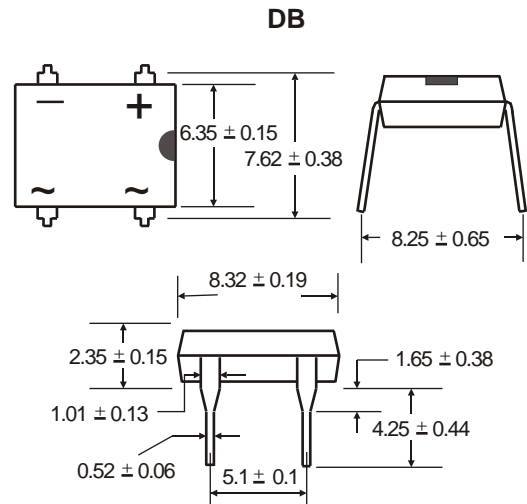


**Features**

- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265 °C /10 seconds at 5 lbs (2.3kg) tension

**Mechanical Data**

Case: Molded plastic  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Polarity: Marked on body  
 Mounting Position: Any  
 Weight: 0.04 ounce, 1.0 grams (approx)



Dimensions in millimeters ( 1mm =0.0394" )

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

| Parameter   | Symbol           | DB101        | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | unit               |
|---|------------------|--------------|-------|-------|-------|-------|-------|-------|--------------------|
| Maximum repetitive peak reverse voltage   | VRRM             | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | V                  |
| Maximum RMS bridge input voltage  | VRMS             | 35           | 70    | 140   | 280   | 420   | 560   | 700   | V                  |
| Maximum DC blocking voltage   | VDC              | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | V                  |
| Maximum average forward rectified output current at TA=40°C                           | IF(AV)           | 1.0          |       |       |       |       |       |       | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 50           |       |       |       |       |       |       | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t | 10           |       |       |       |       |       |       | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)  | ReJA             | 110          |       |       |       |       |       |       | °C / W             |
| Typical junction capacitance per element (2)  | Cj               | 25.0         |       |       |       |       |       |       | pF                 |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |       |       |       |       |       |       | °C                 |

**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

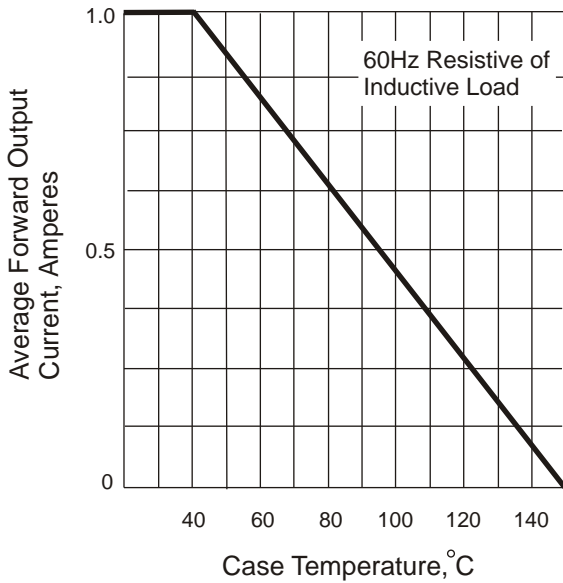
| Parameter   | Symbol | DB101     | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 | Unit |
|---|--------|-----------|-------|-------|-------|-------|-------|-------|------|
| Maximum instantaneous forward voltage drop per leg at 1.0A          | VF     | 1.1       |       |       |       |       |       |       | V    |
| Maximum DC reverse current at rated DC blocking voltage per element | IR     | 10<br>500 |       |       |       |       |       |       | µA   |

**Notes:** (1)Thermal resistance from Junction to Ambient on P.C.board mounting.  
 (2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

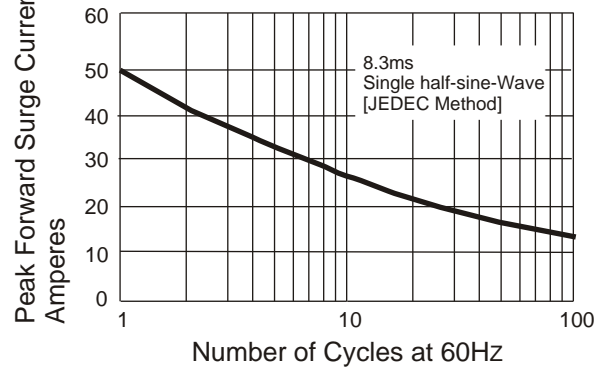
# Rating and Characteristic Curves ( $T_A=25^\circ\text{C}$ Unless otherwise noted )

## DB101 thru DB107

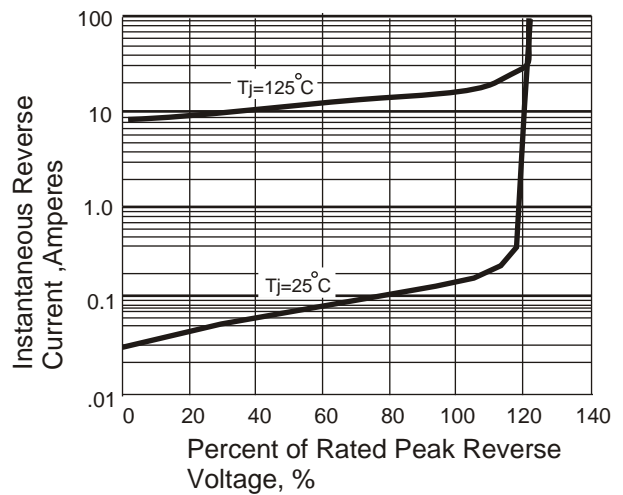
**Fig. 1 Derating Curve for Output Rectified Current**



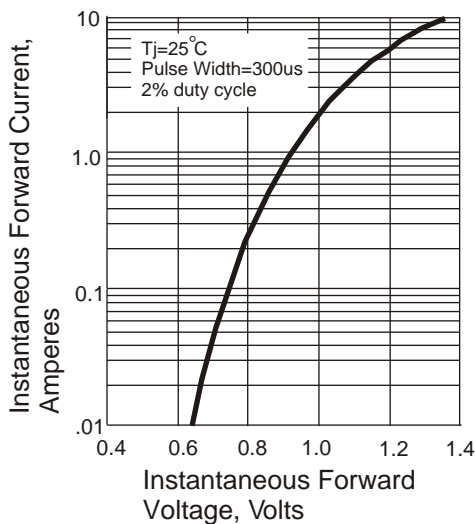
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 4 Typical Revers Characteristics**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 5 Typical Junction Capacitance**

