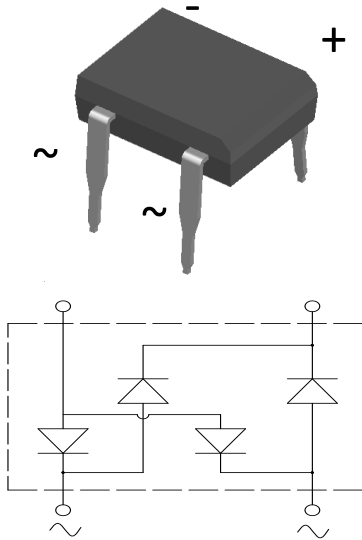


## Bridge Rectifiers



### Features

- UL recognition, file #E313149
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

### Mechanical Data

- **Package:** DB  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT             | DB151     | DB152 | DB153 | DB154 | DB155 | DB156 | DB157 |
|---|------------------|------------------|-----------|-------|-------|-------|-------|-------|-------|
| Device marking code   |                  |                  | DB151     | DB152 | DB153 | DB154 | DB155 | DB156 | DB157 |
| Repetitive peak reverse voltage   | V <sub>RRM</sub> | V                | 50        | 100   | 200   | 400   | 600   | 800   | 1000  |
| Average rectified output current<br>@60Hz sine wave, R-load, T <sub>a</sub> =40°C           | I <sub>O</sub>   | A                | 1.5       |       |       |       |       |       |       |
| Surge(non-repetitive)forward current<br>@60Hz half sine wave, 1 cycle, T <sub>j</sub> =25°C | I <sub>FSM</sub> | A                | 60        |       |       |       |       |       |       |
| Current squared time<br>@1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode              | I <sup>2</sup> t | A <sup>2</sup> s | 15        |       |       |       |       |       |       |
| Storage temperature   | T <sub>stg</sub> | °C               | -55 ~+150 |       |       |       |       |       |       |
| Junction temperature  | T <sub>j</sub>   | °C               | -55 ~+150 |       |       |       |       |       |       |

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT | TEST CONDITIONS                   | DB151 | DB152 | DB153 | DB154 | DB155 | DB156 | DB157 |
|---|------------------|------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub>   | V    | I <sub>FM</sub> =0.7A             | 1.00  |       |       |       |       |       |       |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM</sub> | μA   | V <sub>RM</sub> =V <sub>RRM</sub> | 5     |       |       |       |       |       |       |



# DB151 THRU DB157

## ■ Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER          | SYMBOL              | UNIT               | DB151 | DB152 | DB153 | DB154 | DB155 | DB156 | DB157 |
|--------------------|---------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Thermal Resistance | $R_{\theta J-A(1)}$ | $^\circ\text{C/W}$ | 68.0  |       |       |       |       |       |       |
|                    | $R_{\theta J-L}$    |                    | 15.0  |       |       |       |       |       |       |

Note

(1) Thermal resistance from Between junction and ambient, On glass-epoxi substrate.

## ■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)   | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|-----------------------|-------------------------|----------------------------|---------------|
| DB151~DB157   | B1           | Approximate 0.39 | 50                    | 2500                    | 10000                      | Tube          |

## ■ Characteristics (Typical)

FIG1:  $I_o$ - $T_a$  Curve

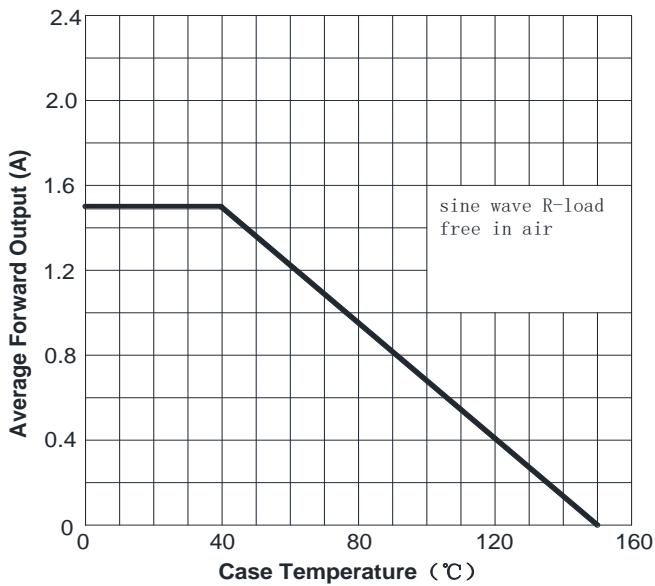


FIG2: Surge Forward Current Capability

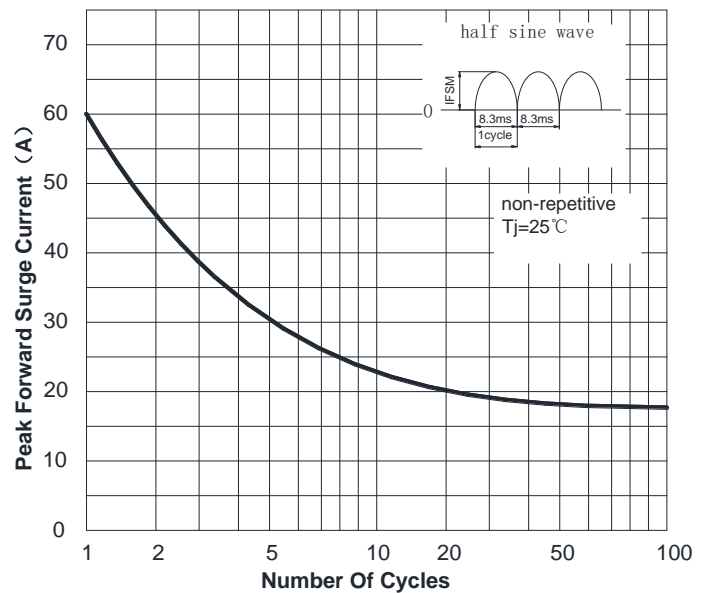


FIG3: Forward Voltage

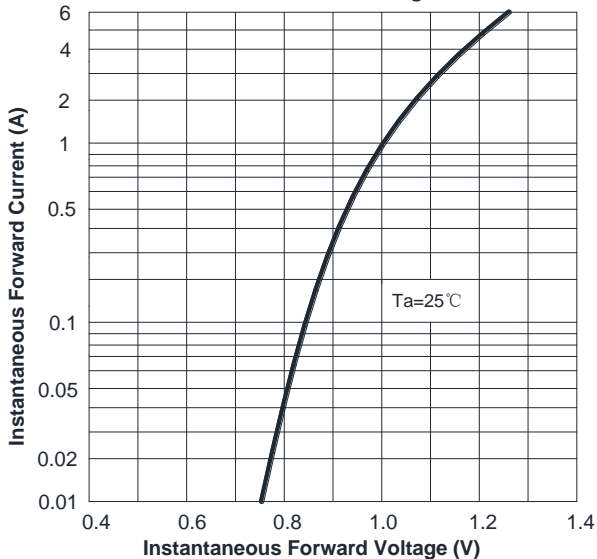
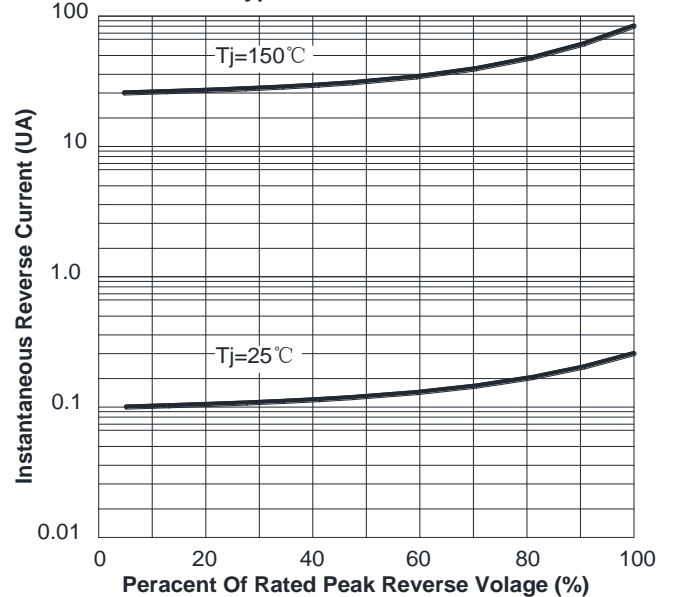


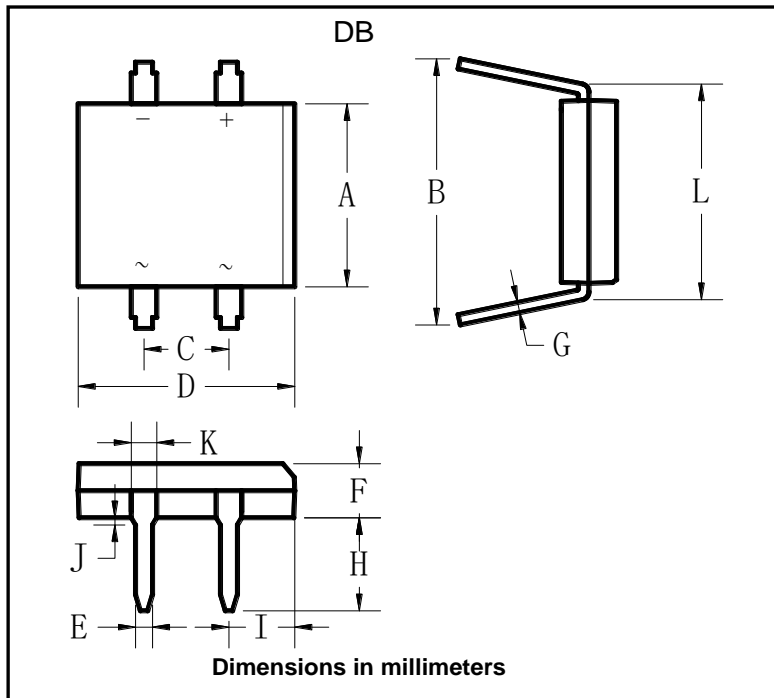
FIG4: Typical Reverse Characteristics





## DB151 THRU DB157

### ■ Outline Dimensions



| DB  |      |      |
|-----|------|------|
| Dim | Min  | Max  |
| A   | 6.20 | 6.50 |
| B   | 7.60 | 8.90 |
| C   | 5.00 | 5.20 |
| D   | 8.13 | 8.51 |
| E   | 0.46 | 0.58 |
| F   | 2.80 | 3.30 |
| G   | 0.22 | 0.33 |
| H   | 3.81 | 4.69 |
| I   | 1.39 | 1.90 |
| J   | 1.27 | 2.03 |
| K   | 0.89 | 1.14 |
| L   | 7.24 | 8.00 |



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