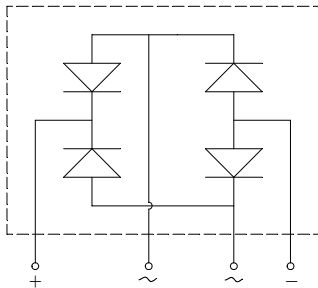


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- 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 switching power supply, home appliances, office equipment, industrial automation applications.

### Mechanical Data

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

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

| PARAMETER   | SYMBOL                                       | UNIT             | D8JB05     | D8JB10 | D8JB20 | D8JB40 | D8JB60 | D8JB80 | D8JB100 |
|---|--|------------------|------------|--------|--------|--------|--------|--------|---------|
| Device marking code   |  |                  | D8JB05     | D8JB10 | D8JB20 | D8JB40 | D8JB60 | D8JB80 | D8JB100 |
| Maximum Repetitive Peak Reverse Voltage   | VRRM   | V                | 50         | 100    | 200    | 400    | 600    | 800    | 1000    |
| Maximum RMS Voltage   | VRMS   | V                | 35         | 70     | 140    | 280    | 420    | 560    | 700     |
| Maximum DC blocking Voltage   | VDC  | V                | 50         | 100    | 200    | 400    | 600    | 800    | 1000    |
| Average Rectified Output Current @60Hz sine wave, R-load,                                       | With heatsink<br>$T_c = 105^\circ\text{C}$   | IO               | A          | 8.0    |        |        |        |        |         |
|   | Without heatsink<br>$T_a = 25^\circ\text{C}$ |                  |            | 3.2    |        |        |        |        |         |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$ | IFSM   | A                | 175        |        |        |        |        |        |         |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$    |  |                  | 350        |        |        |        |        |        |         |
| Current squared time<br>@1ms≤t≤8.3ms $T_j=25^\circ\text{C}$ , rating of per diode               | I <sup>2</sup> t                             | A <sup>2</sup> S | 127        |        |        |        |        |        |         |
| Storage temperature   | Tstg   | °C               | -55 ~ +150 |        |        |        |        |        |         |
| Junction temperature  | Tj   | °C               | -55 ~ +150 |        |        |        |        |        |         |
| Dielectric strength<br>@ Terminals to case, AC 1 minute   | Vdis   | KV               | 2          |        |        |        |        |        |         |
| Mounting torque<br>@Recommend torque: 5kg·cm  | Tor  | kg·cm            | 8          |        |        |        |        |        |         |



# D8JB05 THRU D8JB100

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

| PARAMETER   | SYMBOL         | UNIT | TEST CONDITIONS   | D8JB05 | D8JB10 | D8JB20 | D8JB40 | D8JB60 | D8JB80 | D8JB100 |
|---|----------------|------|---|--------|--------|--------|--------|--------|--------|---------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub> | V    | I <sub>FM</sub> =4.0A                                     |        |        |        | 1.0    |        |        |         |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub> | μA   | T <sub>j</sub> =25°C                                      |        |        |        | 5      |        |        |         |
|   |                |      | T <sub>j</sub> =125°C                                     |        |        |        | 100    |        |        |         |
| Typical junction capacitance                                      | C <sub>j</sub> | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C |        |        |        | 53     |        |        |         |

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

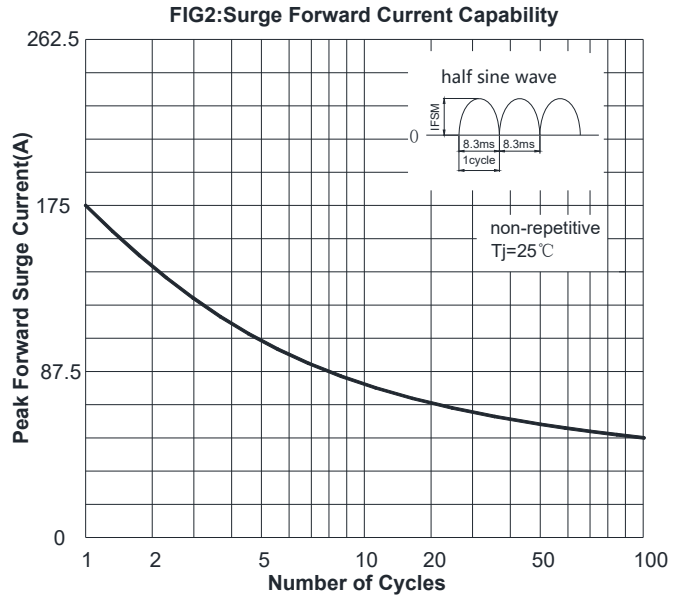
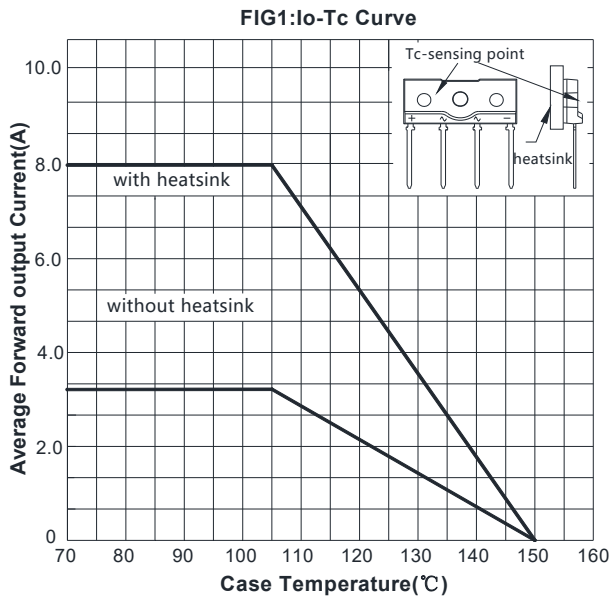
| PARAMETER          |  | SYMBOL            | UNIT | D8JB05 | D8JB10 | D8JB20 | D8JB40 | D8JB60 | D8JB80 | D8JB100 |
|--------------------|--|-------------------|------|--------|--------|--------|--------|--------|--------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | R <sub>θJ-A</sub> | °C/W |        |        |        | 28.0   |        |        |         |
|                    | Between junction and case, With heatsink       | R <sub>θJ-C</sub> |      |        |        |        | 2.8    |        |        |         |

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

| PREFERRED P/N    | PACKAGE CODE | UNIT WEIGHT(g)  | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| D8JB05 ~ D8JB100 | B1           | Approximate 2.4 | 20                   | 900                     | 1800                       | Tube          |

## ■ Characteristics(Typical)





# D8JB05 THRU D8JB100

FIG3: Typical Forward Voltage

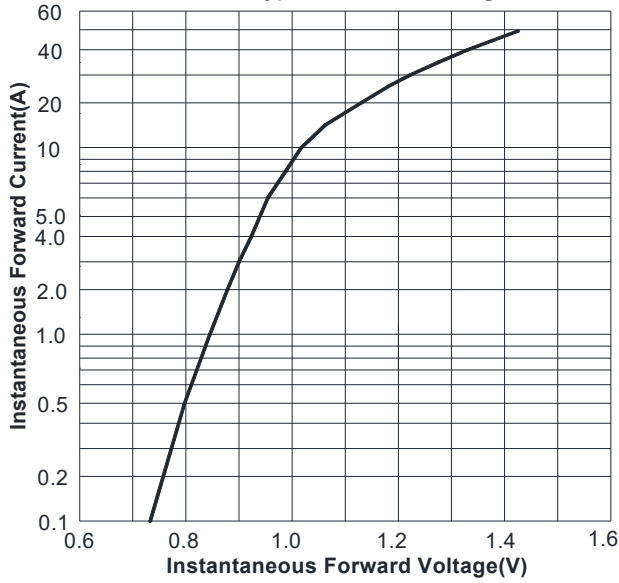
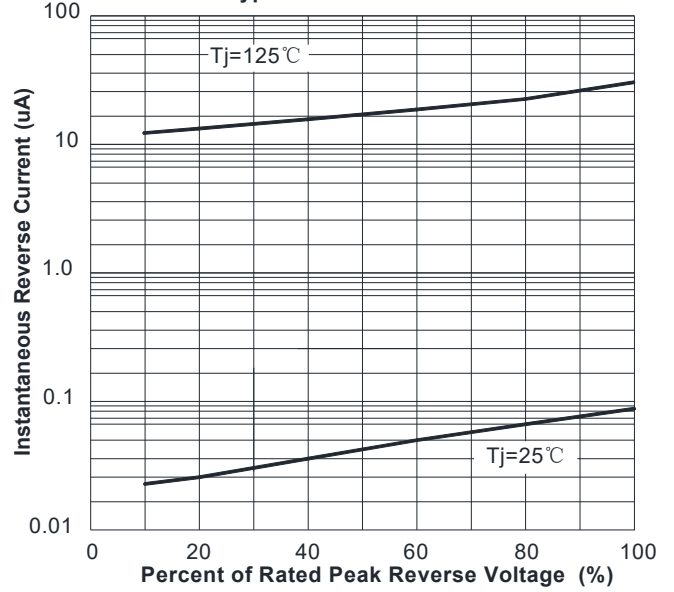
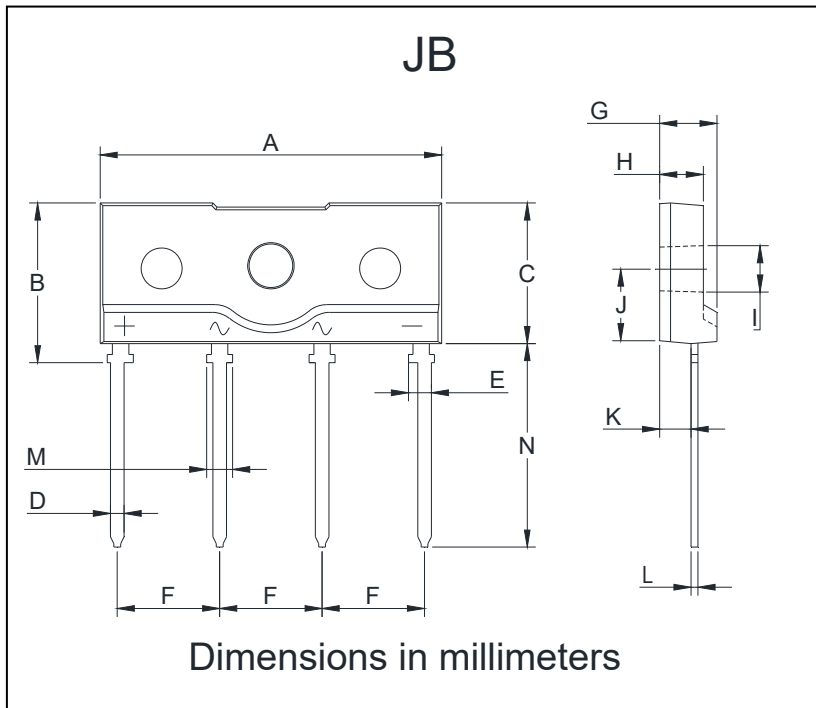


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



| JB  |           |      |
|-----|-----------|------|
| Dim | Min       | Max  |
| A   | 24.7      | 25.3 |
| B   | 11.4      | 12.0 |
| C   | 10.0      | 10.6 |
| D   | 0.9       | 1.1  |
| E   | 1.75(MAX) |      |
| F   | 7.3       | 7.7  |
| G   | 3.9       | 4.5  |
| H   | 2.9       | 3.9  |
| I   | 3.1       | 3.4  |
| J   | 5.4       | 6.0  |
| K   | 2.0       | 2.6  |
| L   | 0.4       | 0.6  |
| M   | 2.1       | 2.3  |
| N   | 14.6      | 15.2 |



## D8JB05 THRU D8JB100

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