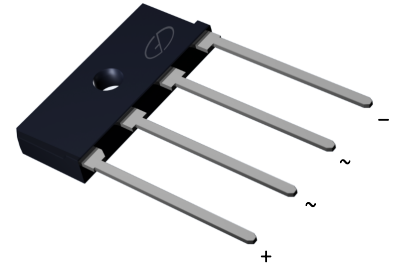


# KBJL6J thru KBJL6M

Glass Passivated Bridge Rectifiers  
 Reverse Voltage 600 to 1000V Forward Current 6A

## Features

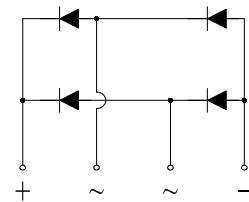
- Thin single In-line package
- Ideal for printed circuit boards
- Glass passivated chip junction
- Low profile package
- High surge current capability
- High case dielectric strength of 2000 VRMS
- Plastic package has Underwrites Laboratory



Package: KBJL

## Mechanical Data

- Case: KBJL
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102, E3 suffix for customer grade, meet JESD 201
- High temperature soldering guaranteed: Solder Dip 275°C, 40seconds
- Polarity: As marked on body
- Mounting Torque: 5.7cm-kg (5.0inches-lbs) max
- Recommend Torque: 5.7cm-kg (5inches-lbs)



Schematic Diagram



**RoHS**  
COMPLIANT

## Maximum Ratings and Electrical Characteristics

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

| Parameter   | Symbol                             | KBJL6J                                   | KBJL6K | KBJL6M | Unit               |
|---|------------------------------------|--|--------|--------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$                          | 600                                      | 800    | 1000   | V                  |
| Maximum RMS Voltage   | $V_{RMS}$                          | 420                                      | 560    | 700    | V                  |
| Maximum DC Blocking Voltage   | $V_{DC}$                           | 600                                      | 800    | 1000   | V                  |
| Maximum Average Forward Rectified Output Current at $T_C=110^\circ\text{C}$<br>$T_A=25^\circ\text{C}$             | $I_{F(AV)}$                        | 6.0 <sup>(1)</sup><br>2.4 <sup>(2)</sup> |        |        | A                  |
| Peak Forward Surge Current (8.3 ms single sine-wave superimposed on rated load, JEDEC method)                     | $I_{FSM}$                          | 120                                      |        |        | A                  |
| Rating for Fusing ( $t < 8.3\text{ms}$ )  | $I^2t$                             | 60                                       |        |        | A <sup>2</sup> sec |
| Maximum Instantaneous Forward Voltage Drop per Leg at 3A  | $V_F$                              | 0.96                                     |        |        | V                  |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg $T_A=25^\circ\text{C}$<br>$T_A=125^\circ\text{C}$ | $I_R$                              | 5<br>150                                 |        |        | $\mu\text{A}$      |
| Typical Thermal Resistance per Leg  | $R_{\theta JA}$<br>$R_{\theta JC}$ | 23 <sup>(2)</sup><br>2.2 <sup>(1)</sup>  |        |        | $^\circ\text{C/W}$ |
| Operating Junction and Storage Temperature Range  | $T_J, T_{STG}$                     | -55 to +150                              |        |        | $^\circ\text{C}$   |

### Notes:

- 1). Unit case mounted on Al plate heatsink
- 2). Units mounted on PCB without heatsink

## Typical Characteristic Curves

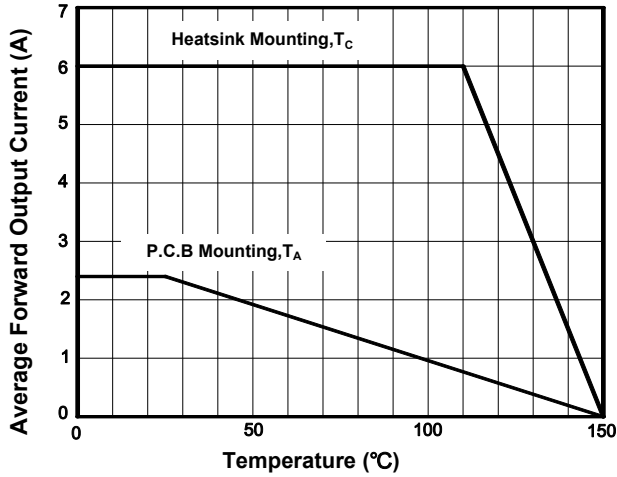


Figure 1. Derating Curve Output Rectified Current

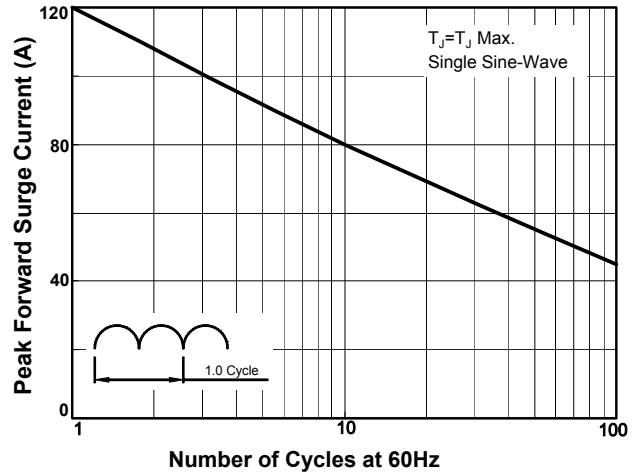


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current per Diode

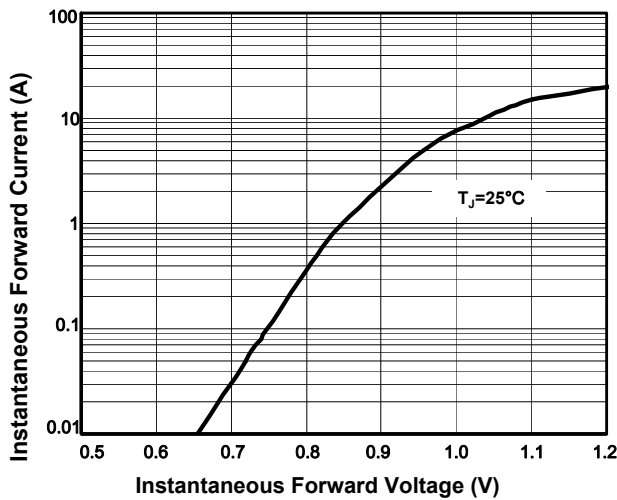


Figure 3. Typical Forward Characteristics Per Diode

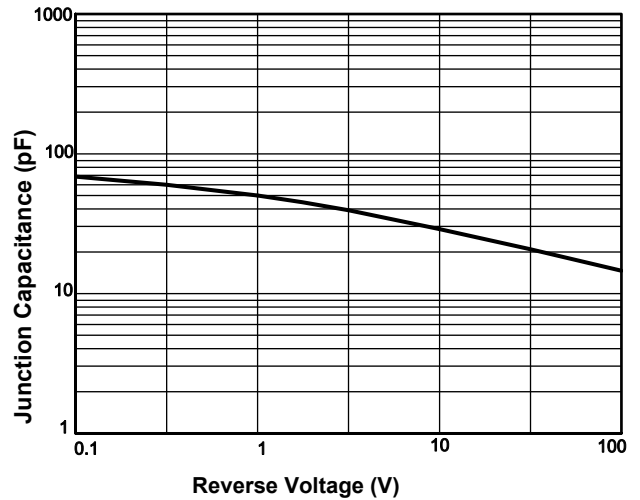


Figure 4. Typical Junction Capacitance Per Diode

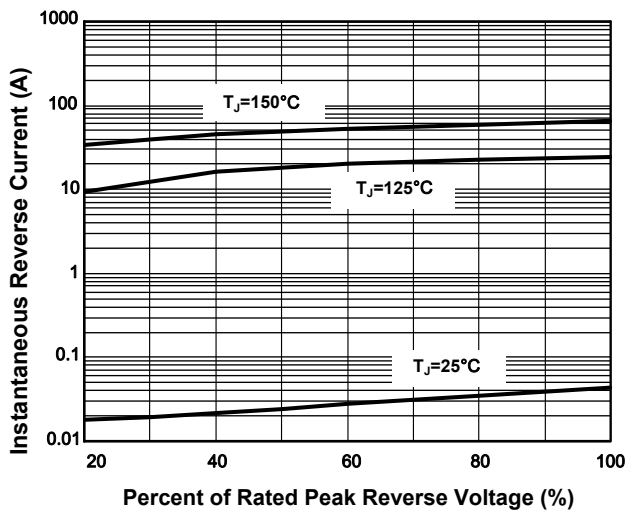


Figure 5. Typical Reverse Characteristics Per Diode

# **KBJL6J thru KBJL6M**

Glass Passivated Bridge Rectifiers  
Reverse Voltage 600 to 1000V Forward Current 6A

## **Product Outline Dimensions**

in mm

**KBJL**

