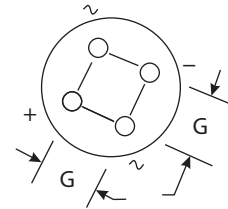
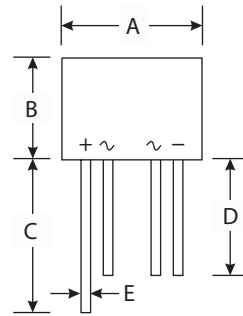


## KB151 THRU KB157

CURRENT 1.5 Amperes  
VOLTAGE 50 to 1000 Volts

### Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Ideal for Printed Circuit Boards
- Case to Terminal Isolation Voltage 1500V
- Plastic Material - UL Flammability Classification Rating 94V-0



| WOB                  |       |      |
|----------------------|-------|------|
| Dim                  | Min   | Max  |
| A                    | 8.84  | 9.86 |
| B                    | 4.00  | 4.60 |
| C                    | 27.90 | —    |
| D                    | 25.40 | —    |
| E                    | 0.71  | 0.81 |
| G                    | 4.60  | 5.60 |
| All Dimensions in mm |       |      |

### Mechanical Data

- Case : WOB, Molded Plastic
- Terminals : Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity : As Marked on Body
- Weight : 1.3 grams (approx.)
- Mounting Position : Any
- Marking : Type Number

### Maximum Ratings And Electrical Characteristics

(Ratings at 25 °C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

|                                                                                                                  | Symbols                         | KB151       | KB152 | KB153 | KB154 | KB155 | KB156 | KB157 | Units                     |
|------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|---------------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                           | $V_{RMM}$<br>$V_{RWM}$<br>$V_R$ | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | Volts                     |
| RMS Reverse Voltage                                                                                              | $V_{RMS}$                       | 35          | 70    | 140   | 280   | 420   | 560   | 700   | Volts                     |
| Average Rectified Output Current @ $T_A=25^\circ\text{C}$                                                        | $I_o$                           | 1.5         |       |       |       |       |       |       | Amps                      |
| Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$                       | 50          |       |       |       |       |       |       | Amps                      |
| Forward Voltage (per element) @ $I_F=1.5\text{ A}$                                                               | $V_{FM}$                        | 1.0         |       |       |       |       |       |       | Volts                     |
| Peak Reverse Current at Rated DC Blocking Voltage                                                                | @ $T_A=25^\circ\text{C}$        | 5.0         |       |       |       |       |       |       | $\mu\text{A}$             |
|                                                                                                                  | @ $T_A=100^\circ\text{C}$       | 500         |       |       |       |       |       |       |                           |
| Typical Junction Capacitance (Note 1)                                                                            | $C_j$                           | 12          |       |       |       |       |       |       | pF                        |
| Typical Thermal Resistance, Junction to Case (Note 2)                                                            | $R_{\theta JA}$                 | 84          |       |       |       |       |       |       | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range                                                                          | $T_j$<br>$T_{STG}$              | -65 to +150 |       |       |       |       |       |       | $^\circ\text{C}$          |

#### Notes:

(1) Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

(2) Thermal Resistance from junction to case mounted on PC board with 13 x 13mm (0.03mm thick) land areas.

## RATING AND CHARACTERISTIC CURVES KB151 THRU KB157

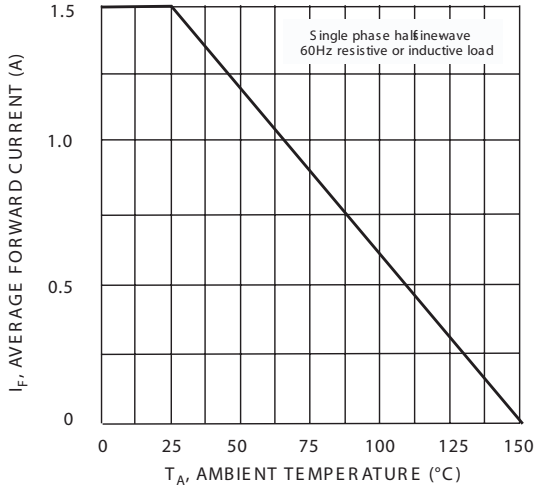


Fig. 1 Forward Current Derating Curve

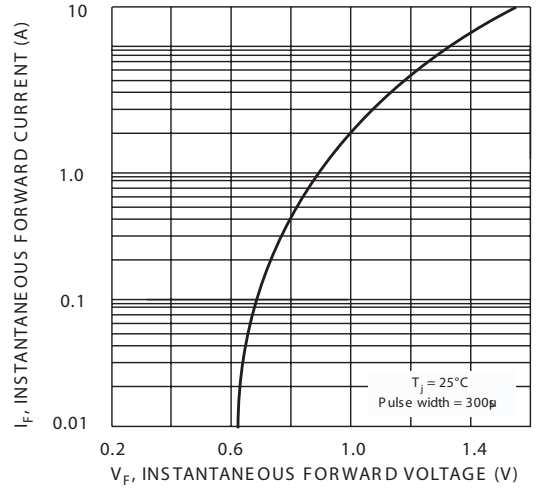


Fig. 2 Typical Forward Characteristics

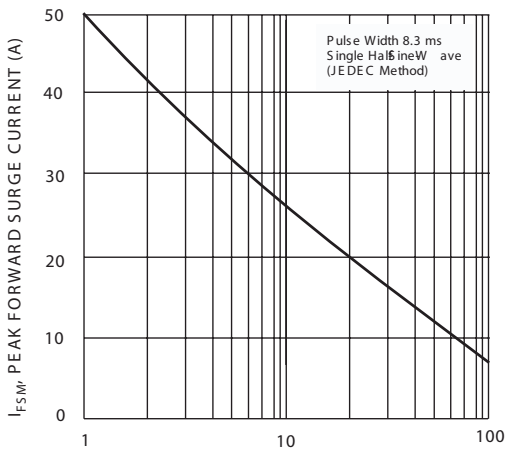


Fig. 3 Max NonRepetitive Surge Current

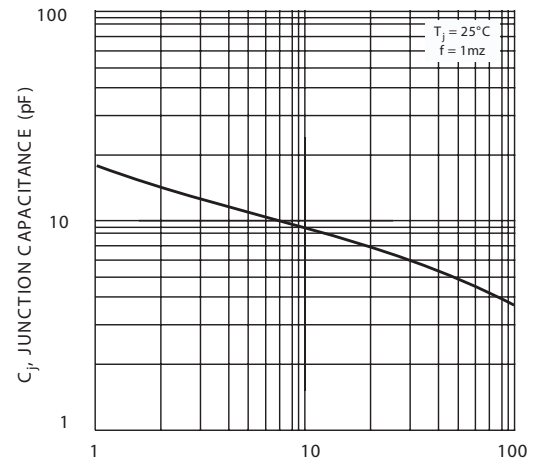


Fig. 4 Typical Junction Capacitance

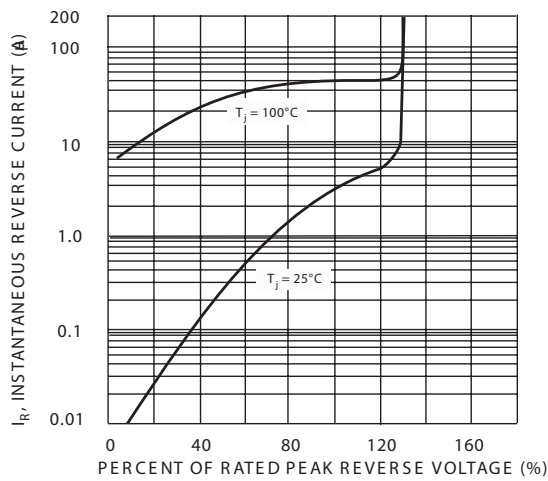


Fig. 5 Typical Reverse Characteristics