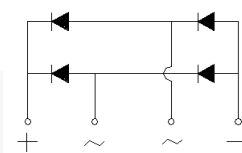


# Single Phase Glass Passivated Silicon Bridge Rectifier

 $V_{RRM} = 50\text{ V} - 400\text{ V}$ 
 $I_O = 25\text{ A}$ 

## Features

- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Reliable, low cost construction utilizing molded plastic technique
- Types from 50 V to 400 V  $V_{RRM}$
- Not ESD Sensitive

**KBJ Package**


## Maximum ratings at $T_j = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

| Parameter                       | Symbol    | Conditions | KBJ25005G  | KBJ2501G   | KBJ2502G   | KBJ2504G   | Unit               |
|---------------------------------|-----------|------------|------------|------------|------------|------------|--------------------|
| Repetitive peak reverse voltage | $V_{RRM}$ |            | 50         | 100        | 200        | 400        | V                  |
| RMS reverse voltage             | $V_{RMS}$ |            | 35         | 70         | 140        | 280        | V                  |
| DC blocking voltage             | $V_{DC}$  |            | 50         | 100        | 200        | 400        | V                  |
| Operating temperature           | $T_j$     |            | -55 to 125 | -55 to 125 | -55 to 125 | -55 to 125 | $^{\circ}\text{C}$ |
| Storage temperature             | $T_{stg}$ |            | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | $^{\circ}\text{C}$ |

## Electrical characteristics at $T_j = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Single phase, half sine wave, 60 Hz, resistive or inductive load

For capacitive load derate current by 20%

| Parameter                                                    | Symbol    | Conditions                          | KBJ25005G | KBJ2501G | KBJ2502G | KBJ2504G | Unit          |
|--------------------------------------------------------------|-----------|-------------------------------------|-----------|----------|----------|----------|---------------|
| Maximum average forward rectified current                    | $I_O$     | $T_c = 110\text{ }^{\circ}\text{C}$ | 25        | 25       | 25       | 25       | A             |
|                                                              |           | $T_a = 25\text{ }^{\circ}\text{C}$  | 4.2       | 4.2      | 4.2      | 4.2      |               |
| Peak forward surge current                                   | $I_{FSM}$ | 8.3 ms single sine-wave             | 350       | 350      | 350      | 350      | A             |
| Maximum instantaneous forward voltage per leg                | $V_F$     | $I_F = 12.5\text{ A}$               | 1.05      | 1.05     | 1.05     | 1.05     | V             |
| Maximum reverse current at rated DC blocking voltage per leg | $I_R$     | $T_a = 25\text{ }^{\circ}\text{C}$  | 10        | 10       | 10       | 10       | $\mu\text{A}$ |
|                                                              |           | $T_a = 125\text{ }^{\circ}\text{C}$ | 500       | 500      | 500      | 500      |               |

FIG. 1 - FORWARD CURRENT DERATING CURVE

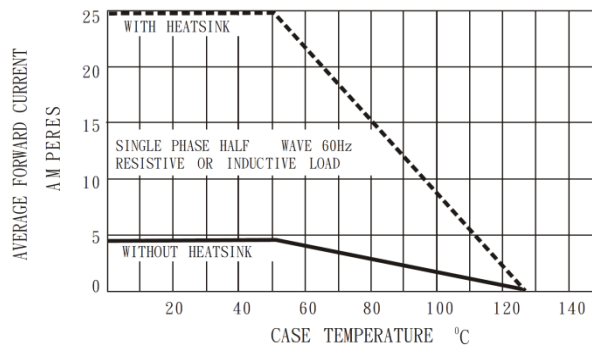


FIG. 2 - MAXIMUM NON-REPETITIVE  
SURGE CURRENT

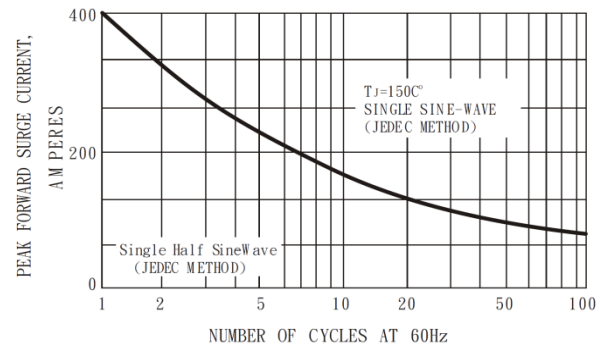


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

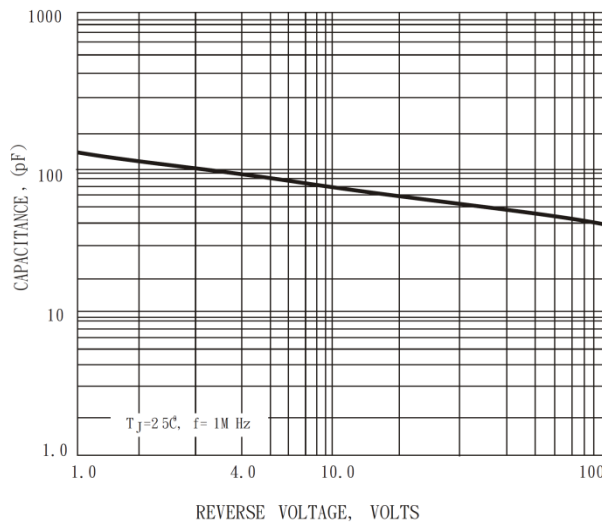


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

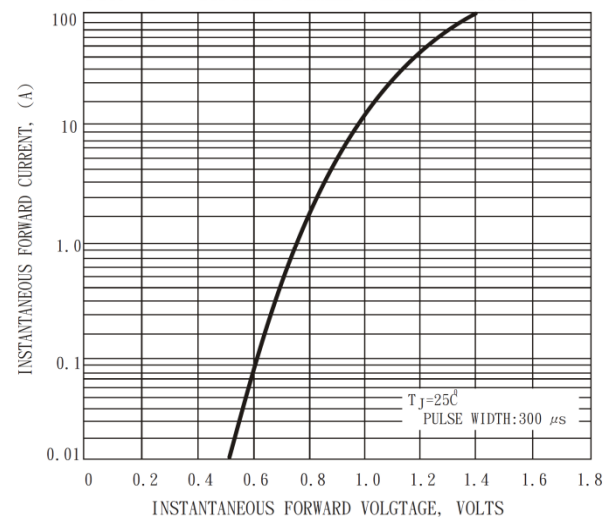
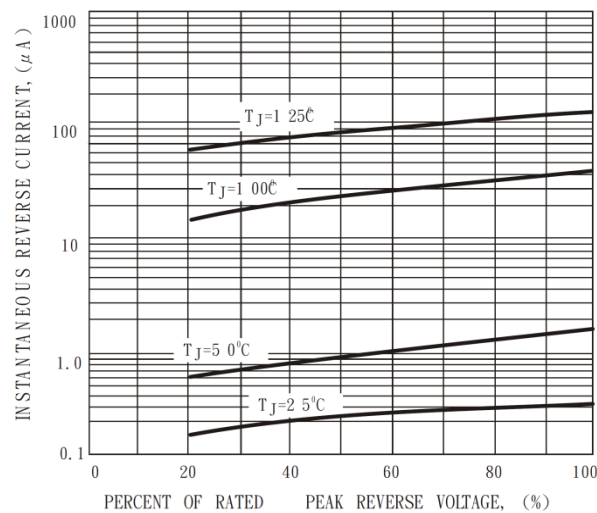


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

