

Single Phase Glass Passivated Silicon Bridge Rectifier

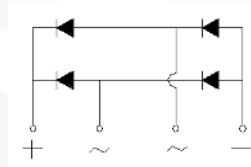
$V_{RRM} = 50\text{ V} - 400\text{ V}$

$I_o = 25\text{ A}$

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 $T_j = 25\text{ °C}$, 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 | °C |
| Storage temperature | T_{stg} | | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | °C |

Electrical characteristics at $T_j = 25\text{ °C}$, 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 | $T_c = 110\text{ °C}$ | 25 | 25 | 25 | 25 | A |
| | | $T_a = 25\text{ °C}$ | 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 | $T_a = 25\text{ °C}$ | 10 | 10 | 10 | 10 | μA |
| | | $T_a = 125\text{ °C}$ | 500 | 500 | 500 | 500 | |

FIG. 1 - FORWARD CURRENT DERATING CURVE

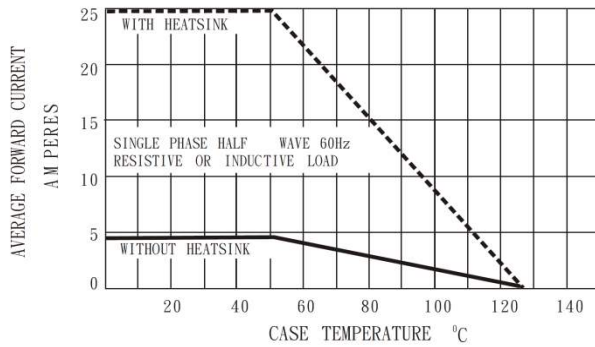


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

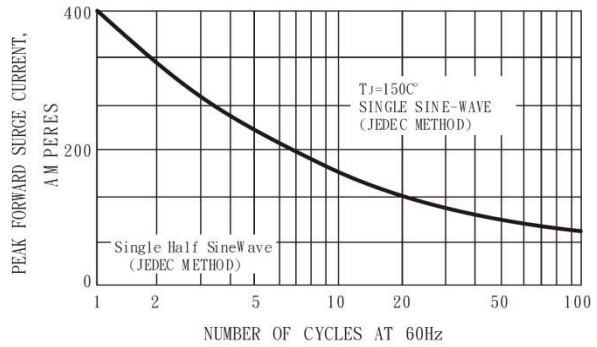


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

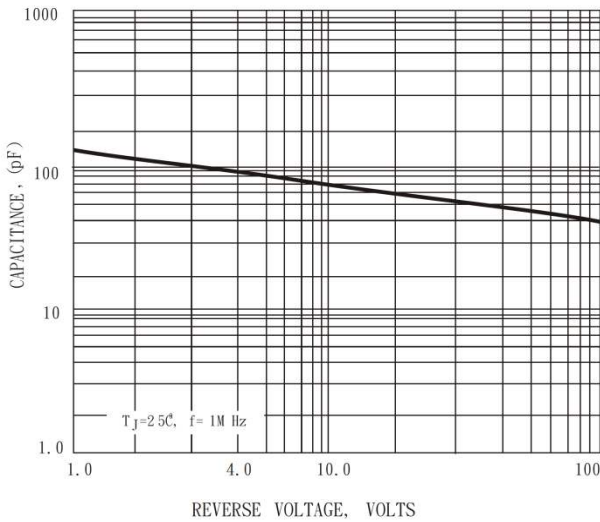


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

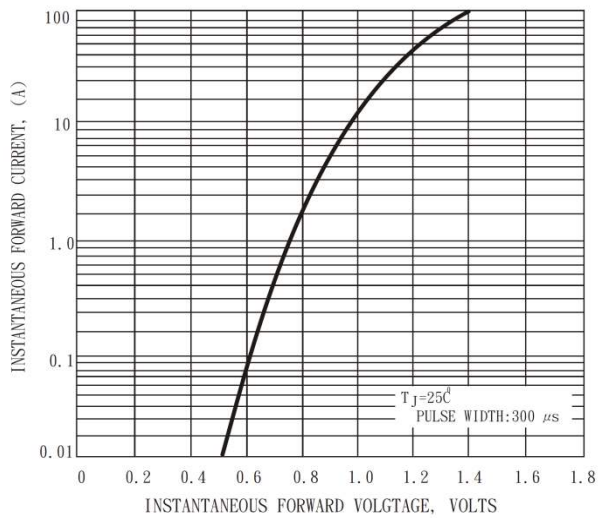
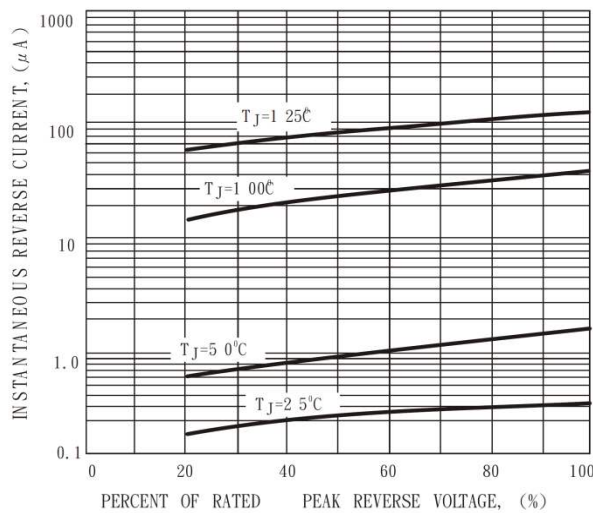


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

