



## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

**KBJ8A THRU KBJ8M**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

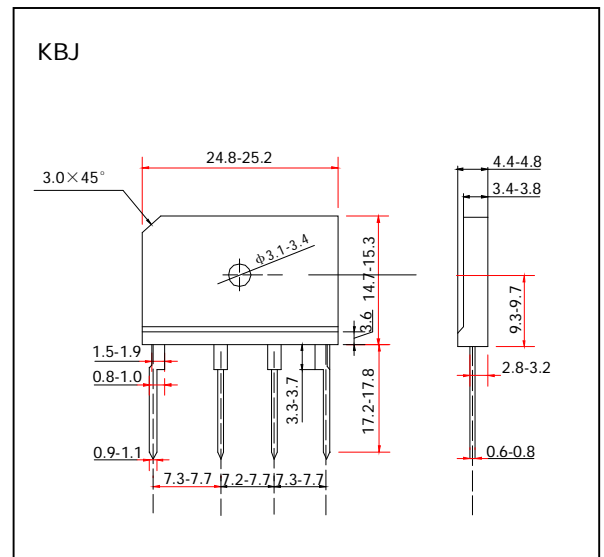
**8.0 Amperes**

### FEATURES

- Plastic package has UL Flammability Classification 94V-0
- Glass passivated chip junctions
- High case dielectric strength of 1500 V<sub>RMS</sub>
- High surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds, 0.375”(9.5mm) lead length

### MECHANICAL DATA

- Case: molded plastic body
- Terminal: Plated leads solderable per MIL-STD-750 Method 2026
- Mounting position: Any (Note 2)
- Mounting Torque: 6 in – 1bs max.
- Weight: 0.15 ounce, 4.0 gram



### 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 current by 20%

|  | SYMBOLS               | KBJ<br>8A     | KBJ<br>8B | KBJ<br>8D | KBJ<br>8D | KBJ<br>8J | KBJ<br>8K | KBJ<br>8M | UNIT             |
|--|-----------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| Maximum Reverse Peak Repetitive Voltage  | V <sub>RRM</sub>      | 50            | 100       | 200       | 400       | 600       | 800       | 1000      | Volts            |
| Maximum RMS Voltage  | V <sub>RMS</sub>      | 35            | 70        | 140       | 280       | 420       | 560       | 700       | Volts            |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>       | 50            | 100       | 200       | 400       | 600       | 800       | 100       | Volts            |
| Maximum Average Forward Rectified Current, At T <sub>C</sub> =100°C                                    | I <sub>(AV)</sub>     | 8.0           |           |           |           |           |           |           | Amps             |
| Peak Forward Surge Current<br>8.3ms single half sine wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>      | 170           |           |           |           |           |           |           | Amps             |
| Rating for Fusing (t < 8.3ms)  | I <sup>2</sup> t      | 120           |           |           |           |           |           |           | A <sup>2</sup> s |
| Maximum Instantaneous Forward Voltage drop<br>Per bridge element 4.0A                                  | V <sub>F</sub>        | 1.0           |           |           |           |           |           |           | Volts            |
| Maximum DC Reverse Current at<br>rated DC blocking voltage per element                                 | T <sub>A</sub> =25°C  | 5.0           |           |           |           |           |           |           | μ A              |
|  | T <sub>A</sub> =125°C | 500           |           |           |           |           |           |           |                  |
| Typical Junction Capacitance, per let<br>(Measured at 1.0MHz and applied reverse voltage of<br>4.0V)   | C <sub>J</sub>        | 211.0         |           |           |           | 94.0      |           |           | pF               |
| Typical Thermal Resistance (Note 1)  | R <sub>JA</sub>       | 2.2           |           |           |           |           |           |           | °C/W             |
| Operating Junction Temperature Range   | T <sub>J</sub>        | (-55 to +150) |           |           |           |           |           |           | °C/W             |
| Storage Temperature Range  | T <sub>STG</sub>      | (-55 to +150) |           |           |           |           |           |           | °C               |

- Notes:**
1. Unit mounted on 2.6”×1.4”×0.06” thick (6.5×3.5×0.15cm) AL. plate.
  2. Recommended mounting position is to bolt down on heatsink using #6 screw and silicon thermal Compound for maximum heat transfer



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**VOLTAGE RANGE**

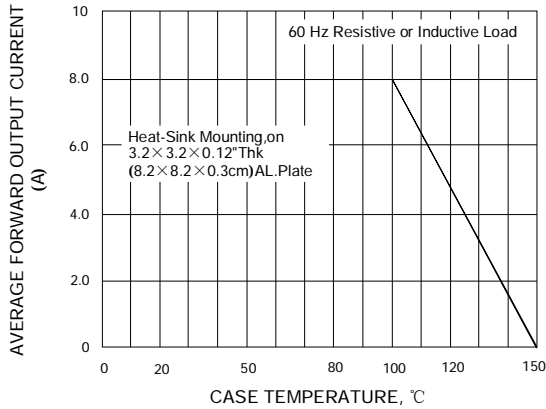
**50 to 1000Volts**

**CURRENT**

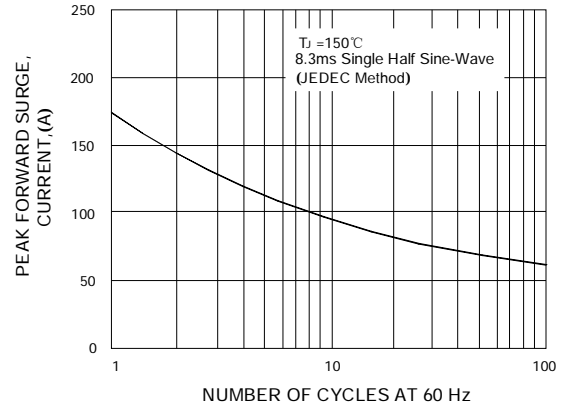
**8.0 Amperes**

## RATINGS AND CHARACTERISTIC CURVES KBJ8A THRU KBJ8M

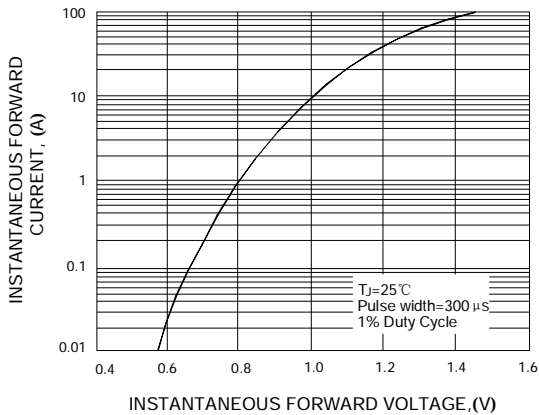
**FIG. 1- DERATING CURVE  
OUTPUT RECTIFIED CURRENT**



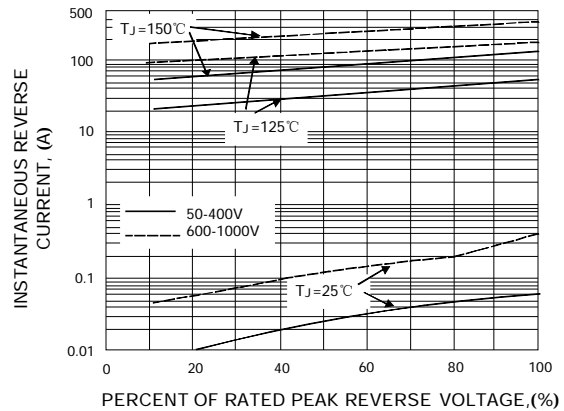
**FIG. 2- MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER LEG**



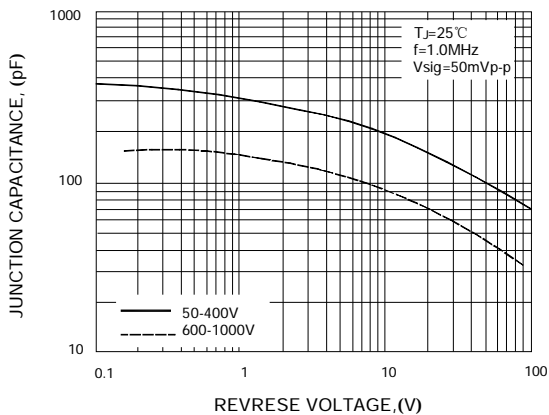
**FIG. 3- TYPICAL FORWARD  
CHARACTERISTICS PER LGE**



**FIG. 4- TYPICAL REVERSE CHARACTERISTICS  
PER LEG**



**FIG. 5- TYPICAL JUNCTION CAPACITANCE  
PER LEG**



**FIG. 6- TYPICAL TRANSIENT THERMAL  
IMPEDANCE PER LEG**

