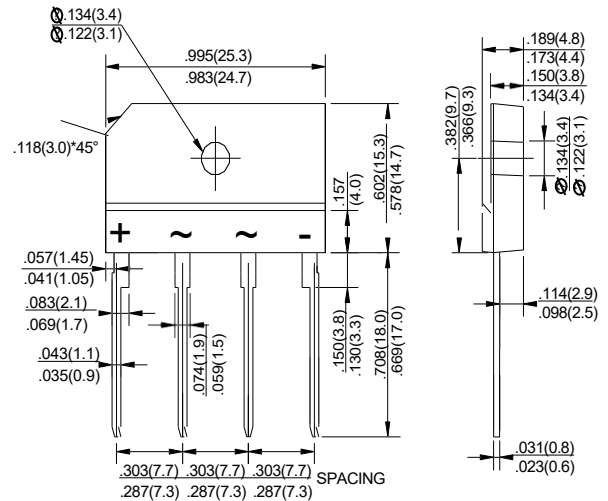


## GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- ◆ Surge overload rating -210 amperes peak
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L flammability classification 94V-0

### KBJ



Dimensions in inches and (millimeters)

### 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 current derate by 20%.

| Parameter                                                                                                   | SYMBOLS                     | KBJ10005    | KBJ1001 | KBJ1002 | KBJ1004 | KBJ1006 | KBJ1008 | KBJ1010 | UNITS            |
|-------------------------------------------------------------------------------------------------------------|-----------------------------|-------------|---------|---------|---------|---------|---------|---------|------------------|
| Marking Code                                                                                                |                             |             |         |         |         |         |         |         |                  |
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>            | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>            | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>             | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                |
| Maximum average forward(with heatsink NOTE 2)<br>Rectified current @T <sub>c</sub> =100°C(without heatsink) | I <sub>(AV)</sub>           | 10<br>3.0   |         |         |         |         |         |         | A                |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)      | I <sub>FSM</sub>            | 210         |         |         |         |         |         |         | A                |
| Rating for Fusing(t<8.3ms)                                                                                  | I <sup>2</sup> <sub>t</sub> | 183         |         |         |         |         |         |         | A <sup>2</sup> s |
| Maximum forward voltage at 5.0A DC<br>Maximum forward voltage at 10.0A DC                                   | V <sub>F</sub>              | 1.0<br>1.1  |         |         |         |         |         |         | V                |
| Maximum DC reverse current T <sub>A</sub> =25°C<br>at rated DC blocking voltage T <sub>A</sub> =125°C       | I <sub>R</sub>              | 10<br>0.5   |         |         |         |         |         |         | μA<br>mA         |
| Typical Junction Capacitance (Note 1)                                                                       | C <sub>J</sub>              | 55          |         |         |         |         |         |         | pF               |
| Typical Thermal Resistance (Note 2)                                                                         | R <sub>θJA</sub>            | 1.4         |         |         |         |         |         |         | °C/W             |
| Operating junction temperature range                                                                        | T <sub>J</sub>              | -55 to +150 |         |         |         |         |         |         | °C               |
| storage temperature range                                                                                   | T <sub>STG</sub>            | -55 to +150 |         |         |         |         |         |         | °C               |

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 75mm\*75mm\*1.6mm cu plate heatsink.

3. The typical data above is for reference only.

## Ratings And Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

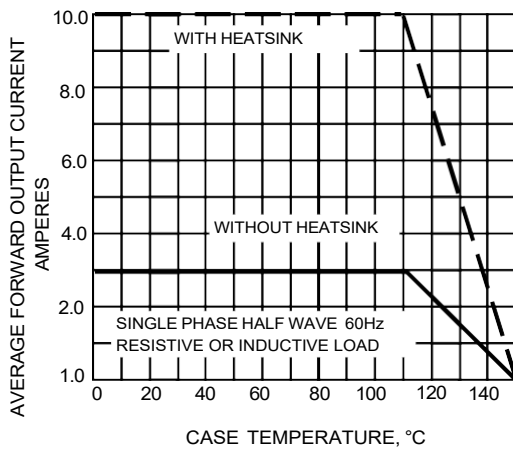


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

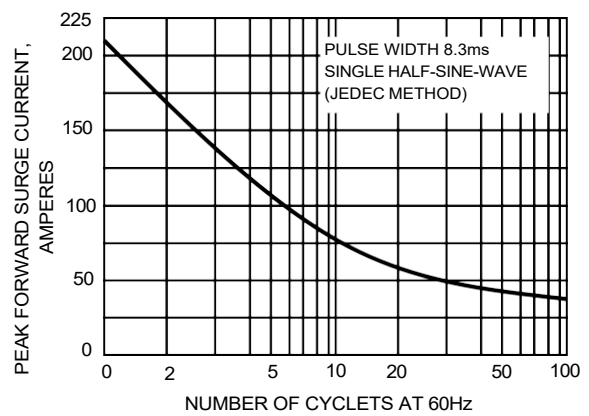


FIG.3-TYPICAL JUNCTION CAPACITANCE

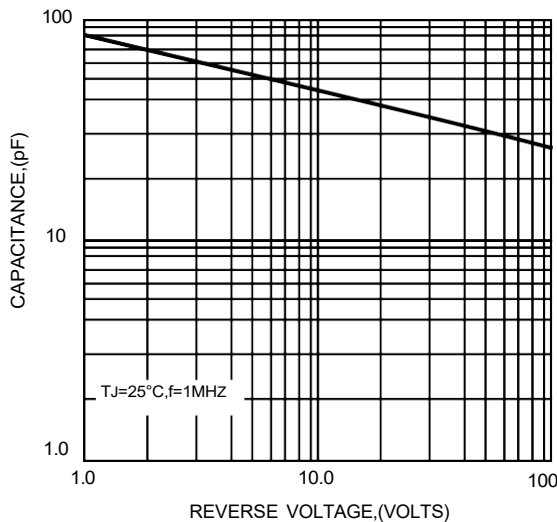


FIG.4-TYPICAL FORWARD CHARACTERISTICS

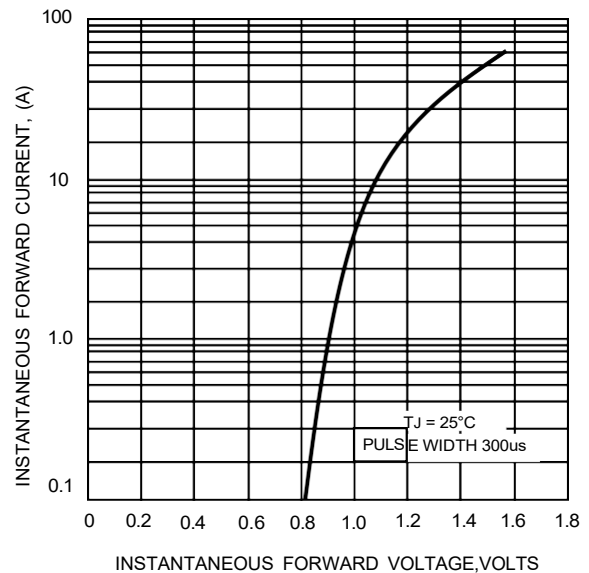
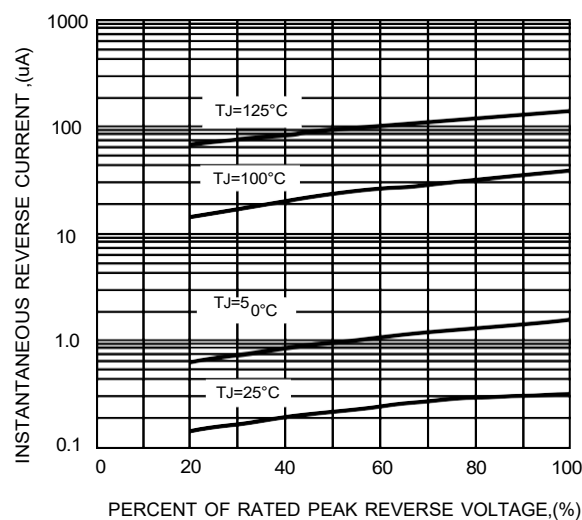


FIG.5-TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.