



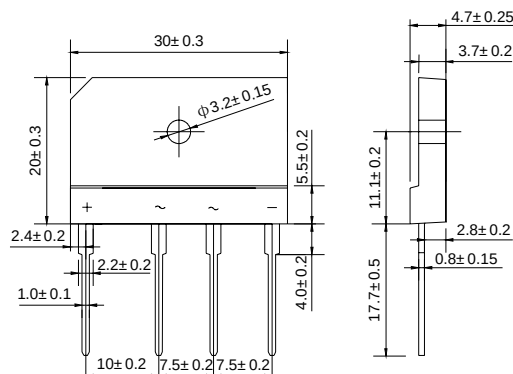
## Silicon Bridge Rectifiers

**CURRENT: 6.0 A**

**KBJ6**

## Features

- ◇ Rating to 1000V PRV
- ◇ Surge overload rating to 150 Amperes peak
- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ◇ Lead solderable per MIL-STD-202 method 208
- ◇ Glass passivated chip junctions



## Mechanical Data

- ◇ Polarity: Symbols molded on body
- ◇ Weight: 0.23 ounces, 6.6 grams
- ◇ Mounting position: Any

Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

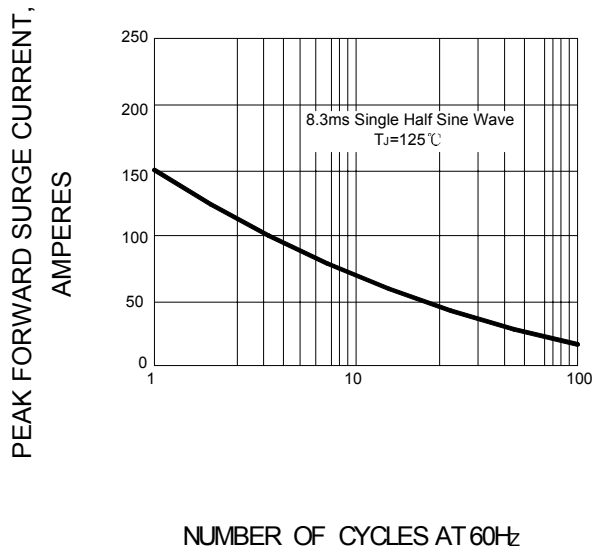
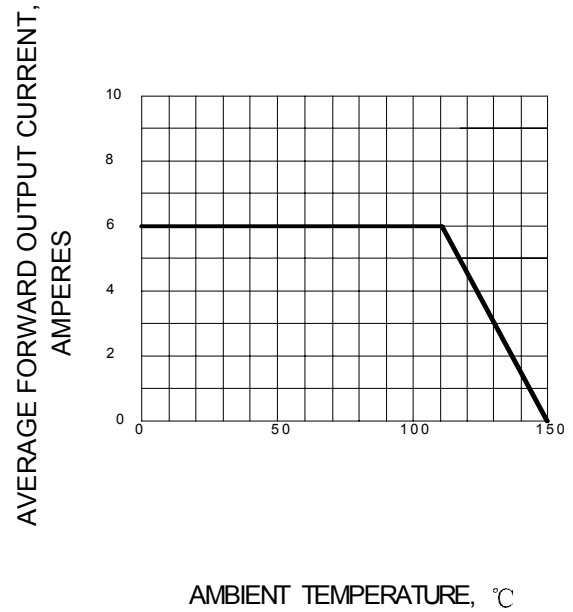
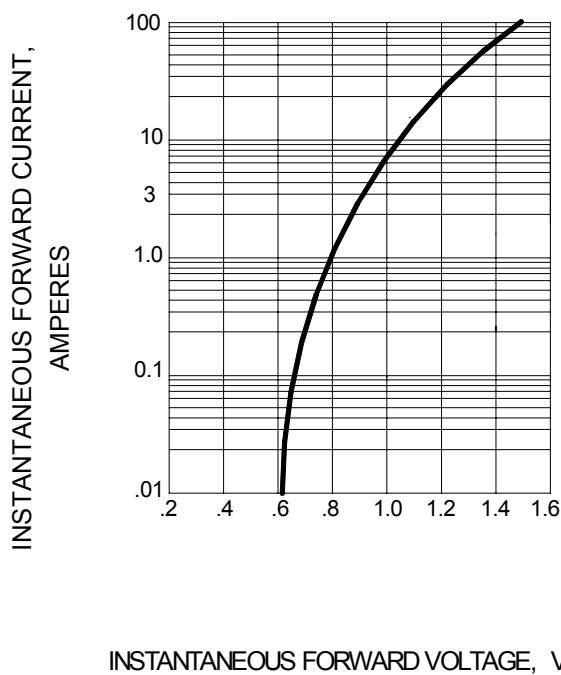
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

|                                                                                                  |                 | KBJ<br>6AG      | KBJ<br>6BG | KBJ<br>6DG | KBJ<br>6GG | KBJ<br>6JG | KBJ<br>6KG | KBJ<br>6MG | UNITS         |
|--------------------------------------------------------------------------------------------------|-----------------|-----------------|------------|------------|------------|------------|------------|------------|---------------|
| Maximum recurrent peak reverse voltage                                                           | $V_{RRM}$       | 50              | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Maximum RMS voltage                                                                              | $V_{RMS}$       | 35              | 70         | 140        | 280        | 420        | 560        | 700        | V             |
| Maximum DC blocking voltage                                                                      | $V_{DC}$        | 50              | 100        | 200        | 400        | 600        | 800        | 1000       | V             |
| Maximum average forward<br>Output current @ $T_A=110^{\circ}C$                                   | $I_{F(AV)}$     | 6.0             |            |            |            |            |            |            | A             |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load          | $I_{FSM}$       | 150.0           |            |            |            |            |            |            | A             |
| Maximum instantaneous forward voltage<br>at 3.0 A                                                | $V_F$           | 1.0             |            |            |            |            |            |            | V             |
| Maximum reverse current @ $T_A=25^{\circ}C$<br>at rated DC blocking voltage @ $T_A=100^{\circ}C$ | $I_R$           | 10.0<br>1.0     |            |            |            |            |            |            | $\mu A$<br>mA |
| Typical junction capacitance per element                                                         | $C_J$           | 55              |            |            |            |            |            |            | pF            |
| Typical thermal resistance                                                                       | $R_{\theta JC}$ | 1.8             |            |            |            |            |            |            | $^{\circ}C/W$ |
| Operating junction temperature range                                                             | $T_J$           | - 55 ---- + 150 |            |            |            |            |            |            | $^{\circ}C$   |
| Storage temperature range                                                                        | $T_{STG}$       | - 55 ---- + 150 |            |            |            |            |            |            | $^{\circ}C$   |

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

2. Device mounted on 300mm X 300mm X 1.6mm cu Plate heatsink.

## Ratings AND Characteristic Curves

**FIG.1 – PEAK FORWARD SURGE CURRENT**

**FIG.2 – FORWARD DERATING CURVE**

**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**

**FIG.4 – TYPICAL JUNCTION CAPACITANCE**
