



# KBJ6AA-KBJ6MA

Silicon Bridge Rectifiers

**VOLTAGE RANGE: 50 --- 1000 V**

**CURRENT: 6.0 A**

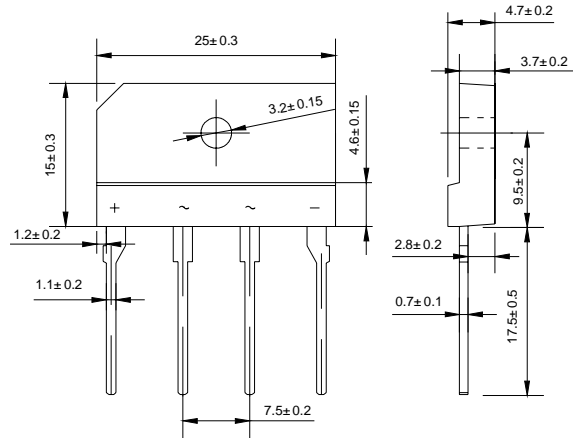
## Features

- ◇ Rating to 1000V PRV
- ◇ Surge overload rating to 170 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

## Mechanical Data

- ◇ Polarity: Symbols molded on body
- ◇ Weight: 0.16 ounces, 4.45 grams
- ◇ Mounting position: Any

### KBJ4



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

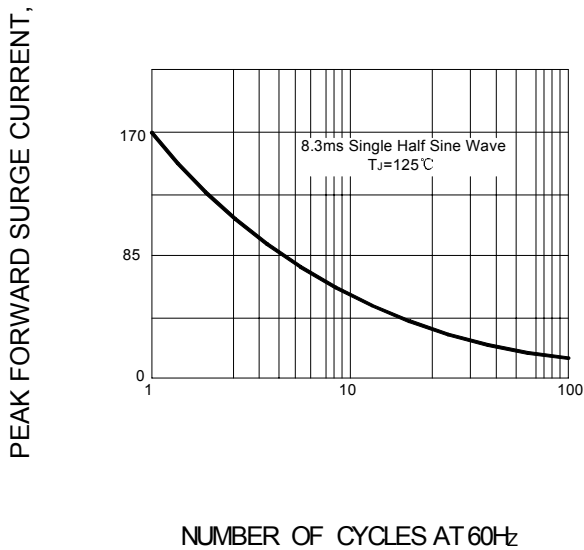
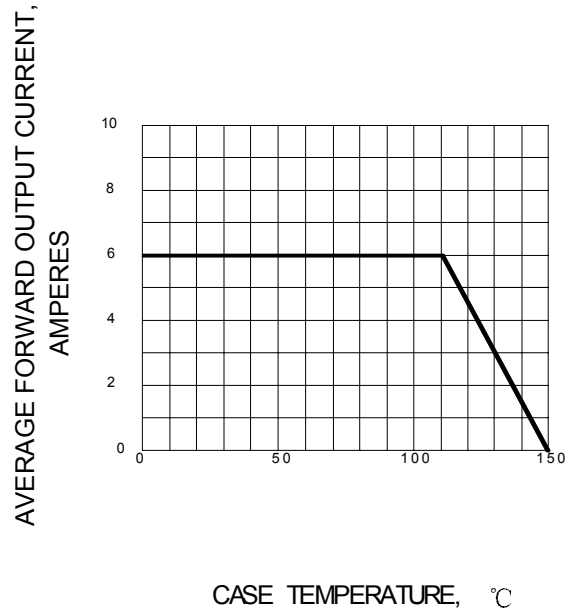
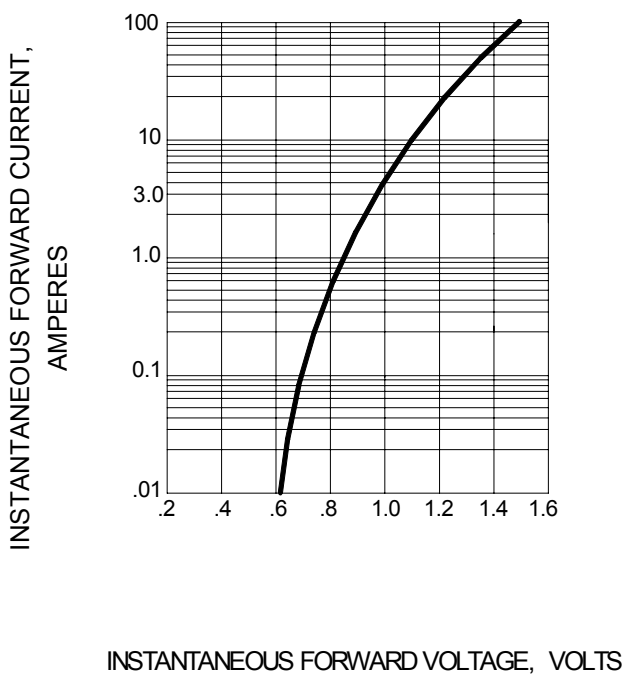
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		KBJ 6AA	KBJ 6BA	KBJ 6DA	KBJ 6GA	KBJ 6JA	KBJ 6KA	KBJ 6MA	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 Output current @ $T_C=110^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	170							A
Maximum instantaneous forward voltage at 3.0 A	$V_F$	1.1							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	10 1.0							$\mu\text{A}$ mA
Typical junction capacitance per element (NOTE1)	$C_J$	45							pF
Typical thermal resistance (NOTE2)	$R_{\theta JC}$	2.2							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150							$^\circ\text{C}$

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**
