

## KBL SILICON BRIDGE RECTIFIER

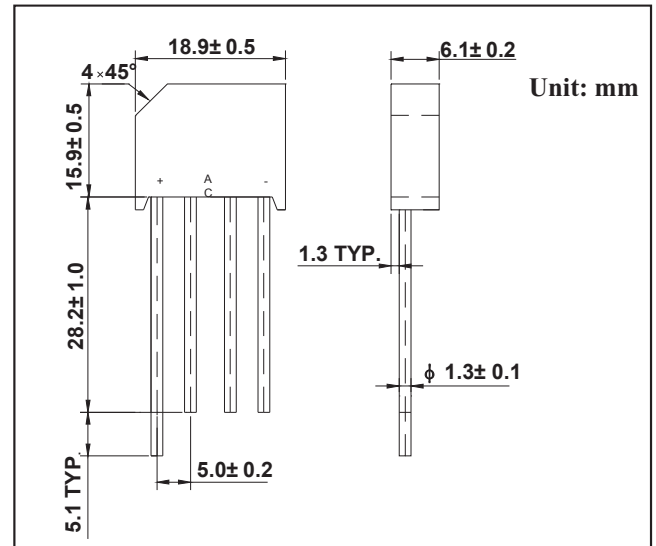
REVERSE VOLTAGE: 50 --- 1000V    CURRENT: 4.0A

### 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

### MECHANICAL DATA

- Case style: KBL plastic molded
- Mounting position: Any



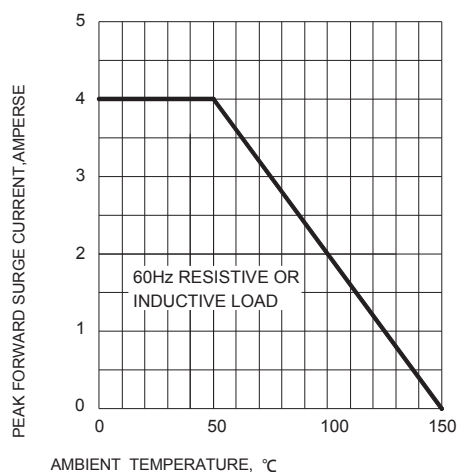
### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

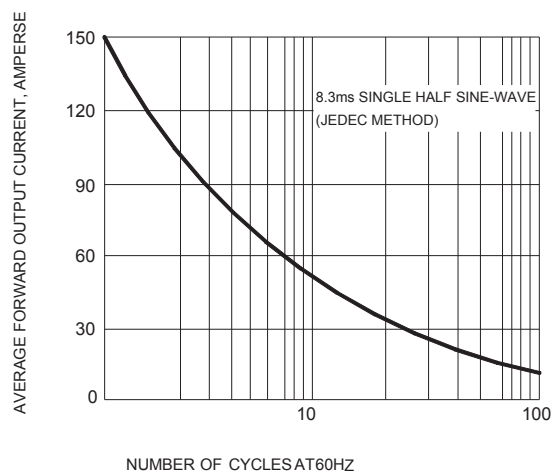
| Parameter                                                                                                  |            | KBL4005        | KBL401 | KBL402 | KBL403 | KBL404 | KBL406 | KBL408 | KBL410 | UNITS               |
|------------------------------------------------------------------------------------------------------------|------------|----------------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| Maximum recurrent peak reverse voltage                                                                     | $V_{RRM}$  | 50             | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V                   |
| Maximum RMS voltage                                                                                        | $V_{RMS}$  | 35             | 70     | 140    | 210    | 280    | 420    | 560    | 700    | V                   |
| Maximum DC blocking voltage                                                                                | $V_{DC}$   | 50             | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V                   |
| Maximum average forward<br>Output current @ $T_A=50^\circ\text{C}$                                         | $I_{(AV)}$ | 4.0            |        |        |        |        |        |        |        | A                   |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load                    | $I_{FSM}$  | 150            |        |        |        |        |        |        |        | A                   |
| Maximum instantaneous forward voltage<br>at 2.0 A                                                          | $V_F$      | 1.0            |        |        |        |        |        |        |        | V                   |
| Maximum reverse current @ $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | $I_R$      | 10<br>1        |        |        |        |        |        |        |        | $\mu\text{A}$<br>mA |
| Operating junction temperature range                                                                       | $T_j$      | - 55 --- + 150 |        |        |        |        |        |        |        | $^\circ\text{C}$    |
| Storage temperature range                                                                                  | $T_{STG}$  | - 55 --- + 150 |        |        |        |        |        |        |        | $^\circ\text{C}$    |

## RATINGS AND CHARACTERISTIC CURVES

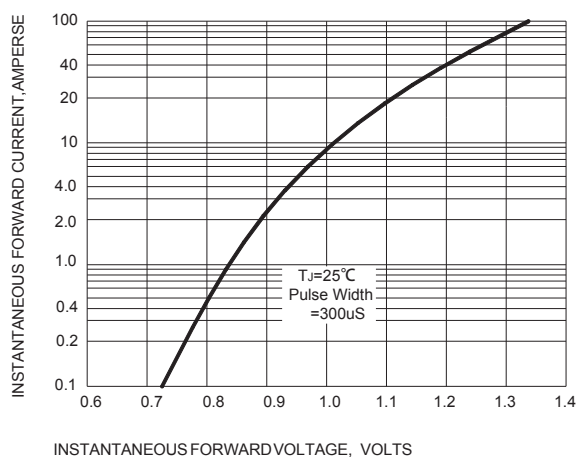
**FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.2 – MAXIMUM FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

