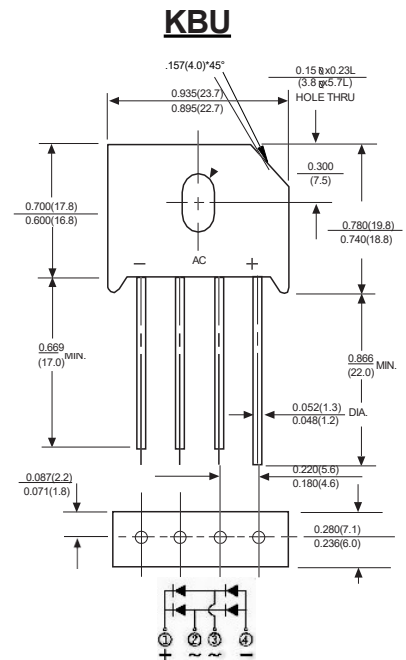


## SILICON BRIDGE RECTIFIERS

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

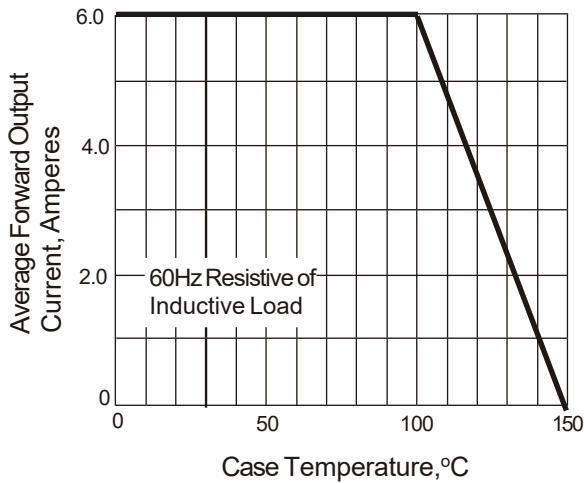
Ratings at 25°C ambient temperature unless otherwise specified.

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

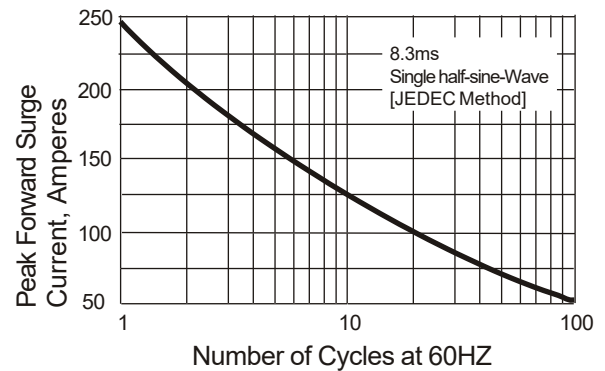
| Parameter                                                                                                 | SYMBOLS         | KBU6005     | KBU601 | KBU602 | KBU604 | KBU606 | KBU608 | KBU610 | UNITS              |
|-----------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------------------|
| Marking Code                                                                                              |                 |             |        |        |        |        |        |        |                    |
| Maximum repetitive 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 rectified current at $T_A=100^\circ\text{C}$                               | $I_{AV}$        | 6.0         |        |        |        |        |        |        | A                  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method)    | $I_{FSM}$       | 250         |        |        |        |        |        |        | A                  |
| Maximum instantaneous forward<br>voltage drop per bridge element at 6.0A                                  | $V_F$           | 1.1         |        |        |        |        |        |        | V                  |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$ | $I_R$           | 10          |        |        |        |        |        |        | $\mu\text{A}$      |
|                                                                                                           |                 | 1.0         |        |        |        |        |        |        | mA                 |
| Typical Junction Capacitance                                                                              | $C_J$           | 200         |        |        |        |        |        |        | pF                 |
| Typical Thermal Resistance (Note 1)                                                                       | $R_{\theta JA}$ | 2.7         |        |        |        |        |        |        | $^\circ\text{C/W}$ |
| Operating junction temperature range                                                                      | $T_J$           | -55 to +150 |        |        |        |        |        |        | $^\circ\text{C}$   |
| storage temperature range                                                                                 | $T_{STG}$       | -55 to +150 |        |        |        |        |        |        | $^\circ\text{C}$   |

## Ratings And Characteristic Curves

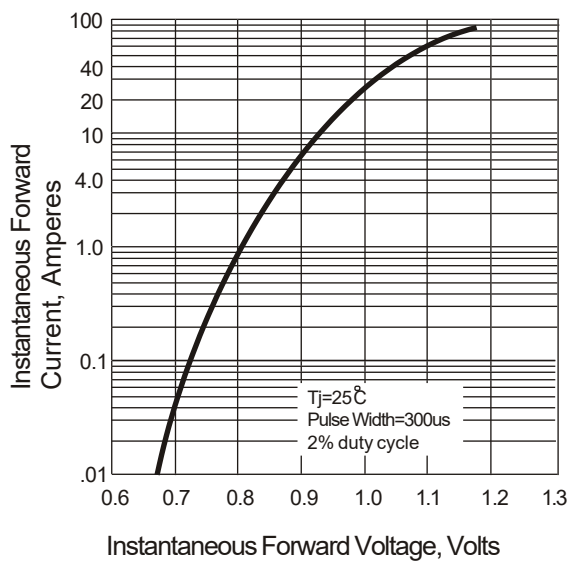
**Fig. 1 Derating Curve for Output Rectified Current**



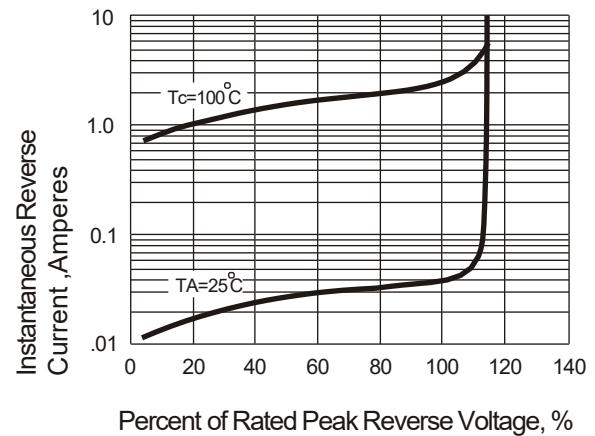
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



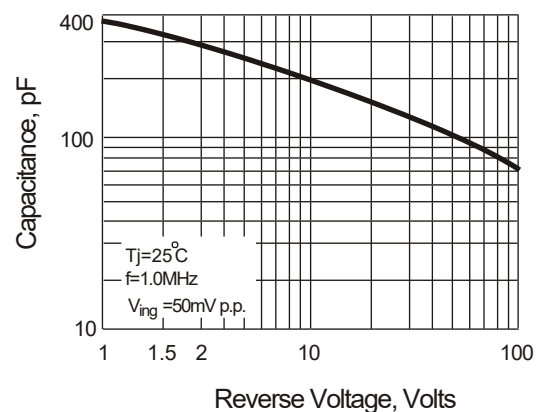
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



The curve above is for reference only.