



## KBU601 THRU KBU607

Single Phase 6.0 AMPS. Silicon Bridge Rectifiers

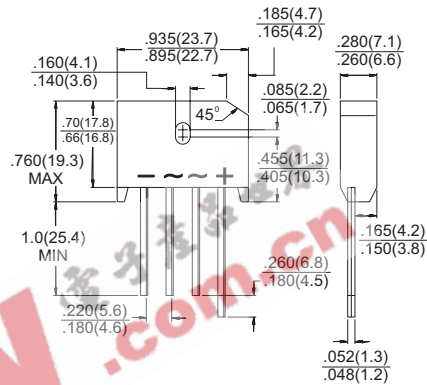


Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

### Features

- ✧ UL Recognized File # E-96005
- ✧ High surge current capability
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction technique results in inexpensive product
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds / 0.375" ( 9.5mm ) lead length at 5 lbs., ( 2.3 kg ) tension
- ✧ Weight: 8 grams

### KBU



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number  | Symbol          | KBU 601     | KBU 602 | KBU 603 | KBU 604 | KBU 605 | KBU 606 | KBU 607 | 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 Rectified Current @ $T_A = 65^\circ\text{C}$                                       | $I_{(AV)}$      | 6.0         |         |         |         |         |         |         | A                  |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)         | $I_{FSM}$       | 200         |         |         |         |         |         |         | A                  |
| Maximum Instantaneous Forward Voltage @ 6.0A   | $V_F$           | 1.0         |         |         |         |         |         |         | V                  |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ | $I_R$           | 10<br>500   |         |         |         |         |         |         | <br>uA             |
| Typical Thermal Resistance (Note 1)  | $R_{\theta JA}$ | 8.6         |         |         |         |         |         |         | $^\circ\text{C/W}$ |
| (Note 2)   | $R_{\theta JL}$ | 3.1         |         |         |         |         |         |         |                    |
| Operating Temperature Range  | $T_J$           | -55 to +125 |         |         |         |         |         |         | $^\circ\text{C}$   |
| Storage Temperature Range  | $T_{STG}$       | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$   |

Note: 1. Thermal resistance from Junction to Ambient with units in Free Air, P.C.B. Mounted on 0.5 x 0.5" (12 x 12mm) Copper Pads, 0.375" (9.5mm) Lead Length.

2. Thermal resistance from Junction to Case with units Mounted on 2" x 3" x 0.25" Al-Plate



### RATINGS AND CHARACTERISTIC CURVES (KBU601 THRU KBU607)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

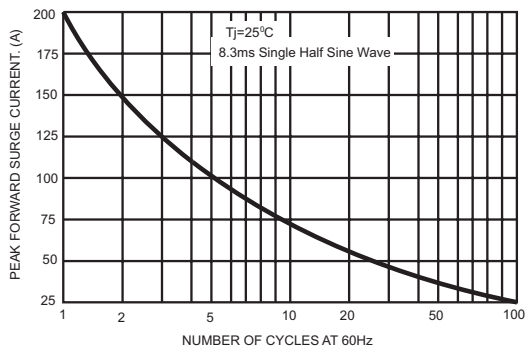


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

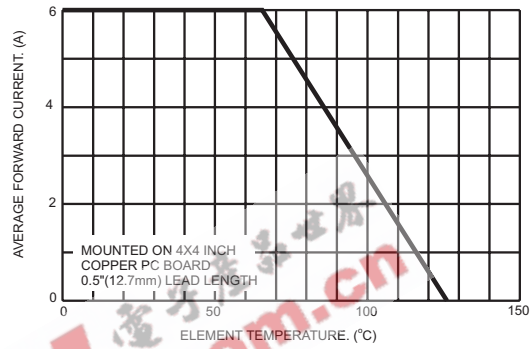


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

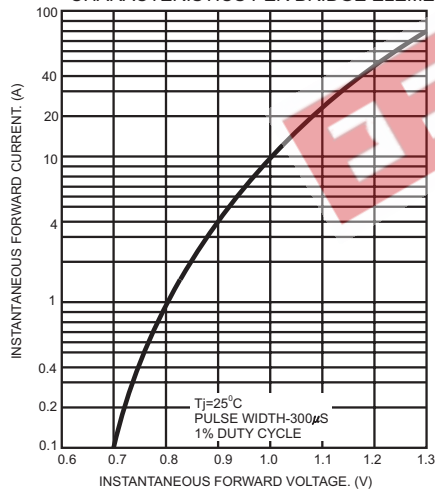


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

