



# KBU601G THRU KBU607G

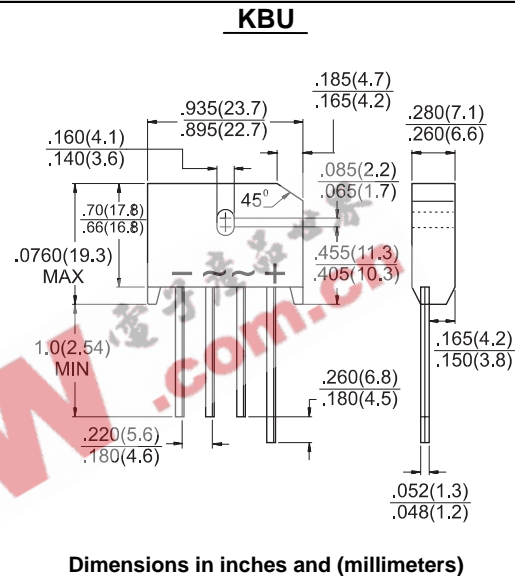
Single Phase 6.0 AMPS. Glass Passivated Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

## Features

- ✦ UL Recognized File # E-96005
- ✦ Glass passivated junction
- ✦ Ideal for printed circuit board
- ✦ Reliable low cost construction
- ✦ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✦ Surge overload rating to 175 amperes peak
- ✦ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✦ Weight: 0.3 ounce, 8.0 grams
- ✦ Mounting torque: 5 in. lb. max.



## 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 601G    | KBU 602G | KBU 603G | KBU 604G | KBU 605G | KBU 606G | KBU 607G | 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 Sne-wave Superimposed on Rated Load (JEDEC method)          | $I_{FSM}$                          | 175         |          |          |          |          |          |          | 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 @ $T_A=125^\circ\text{C}$ | $I_R$                              | 5.0<br>500  |          |          |          |          |          |          | $\mu\text{A}$<br>$\mu\text{A}$ |
| Typical Thermal Resistance (Note 1)<br>(Note 2)  | $R_{\theta JA}$<br>$R_{\theta JC}$ | 8.6<br>3.1  |          |          |          |          |          |          | $^\circ\text{C}/\text{W}$      |
| Operating Temperature Range  | $T_J$                              | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$               |
| 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" (12mm 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 (KBU601G THRU KBU607G)

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

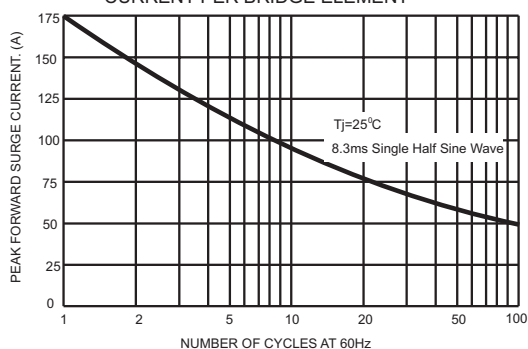


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

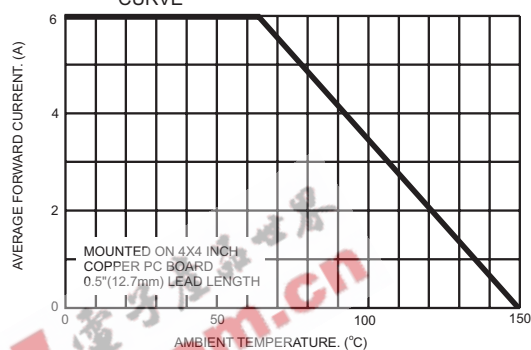


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

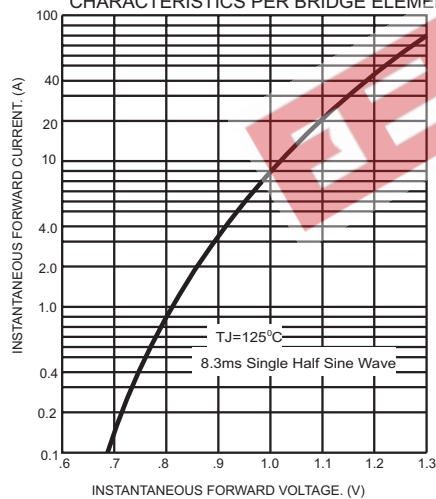


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

