



## KBL601 THRU KBL607

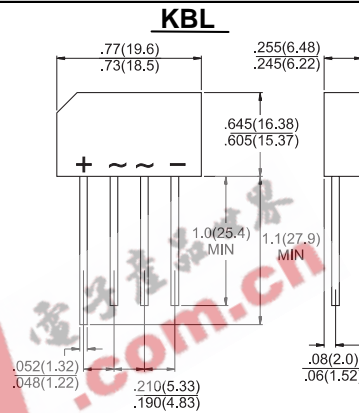
Single Phase 6.0 AMPS. Silicon Bridge Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
6.0 Amperes

### Features

- ✧ UL Recognized File # E-96005
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed:  
260°C / 10 seconds / 0.375" ( 9.5mm )  
lead length at 5 lbs., ( 2.3 kg ) tension
- ✧ Leads solderable per MIL-STD-202,  
Method 208



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                             | KBL 601     | KBL 602 | KBL 603 | KBL 604 | KBL 605 | KBL 606 | KBL 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 @ $T_A = 50^\circ\text{C}$ (Note 1)                              | $I_{(AV)}$                         | 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   | $V_F$                              | 1.1         |         |         |         |         |         |         | 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   |         |         |         |         |         |         | uA<br>uA           |
| Typical thermal Resistance (Note 1)<br>(Note 2)  | $R_{\theta JA}$<br>$R_{\theta JL}$ | 19<br>2.4   |         |         |         |         |         |         | $^\circ\text{C/W}$ |
| Operating Temperature Range $T_J$  | $T_J$                              | -55 to +125 |         |         |         |         |         |         | $^\circ\text{C}$   |
| Storage Temperature Range $T_{STG}$  | $T_{STG}$                          | -55 to +150 |         |         |         |         |         |         | $^\circ\text{C}$   |

Note: 1. Thermal Resistance from Junction to Ambient AI-Plate.

2. Thermal resistance from Junction to Lead with units Mounted on P.C.B. at 0.375" (9.5mm) Lead Length and 0.6" x 0.6" (16mm x 16mm) Copper Pads.



### RATINGS AND CHARACTERISTIC CURVES (KBL601 THRU KBL607)

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

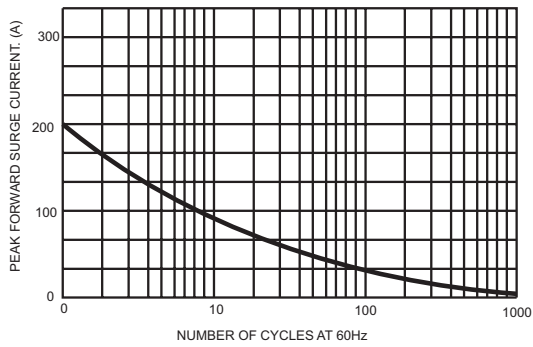


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

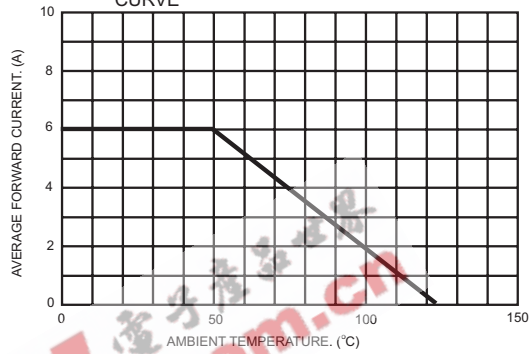


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

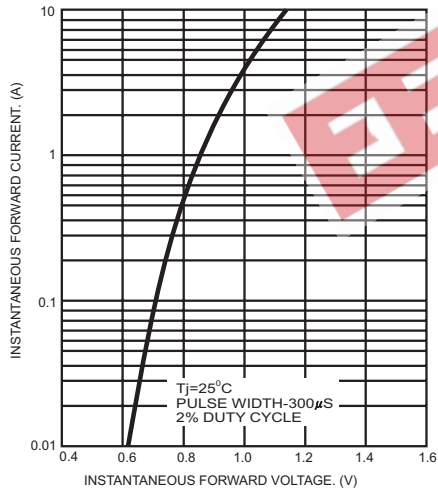


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

