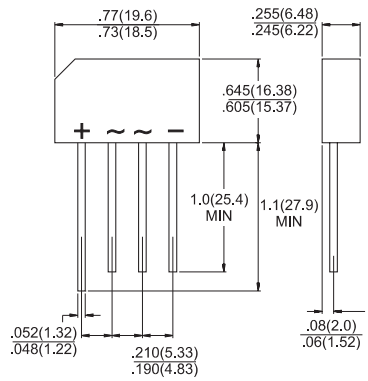
# KBL601 THRU KBL607

## Single Phase 6.0 AMPS. Silicon Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
6.0 Amperes

**KBL**




**Dimensions in inches and (millimeters)**

### Features

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

## Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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℃ (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℃ at Rated DC Blocking Voltage @ $T_A$=100℃ | $I_R$ | 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 | | | | | | | ℃/W |
| Operating Temperature Range $T_J$ | $T_J$ | -55 to +125 | | | | | | | ℃ |
| Storage Temperature Range $T_{STG}$ | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

Note: 1. Thermal Resistance from Junction to Ambient Al-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

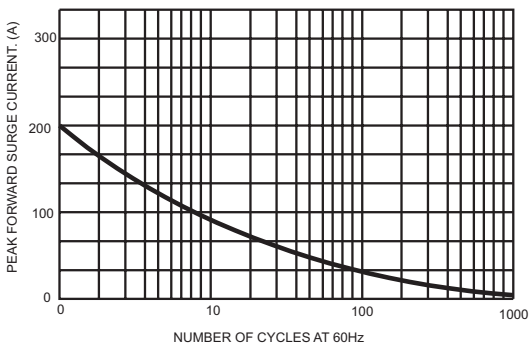



FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

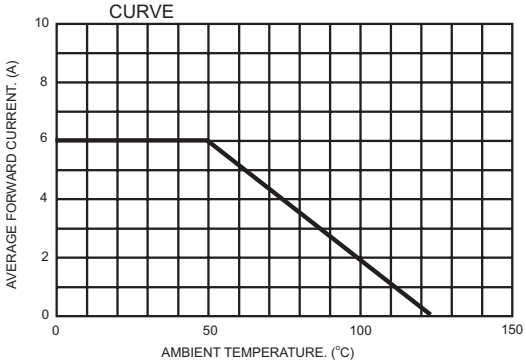



FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

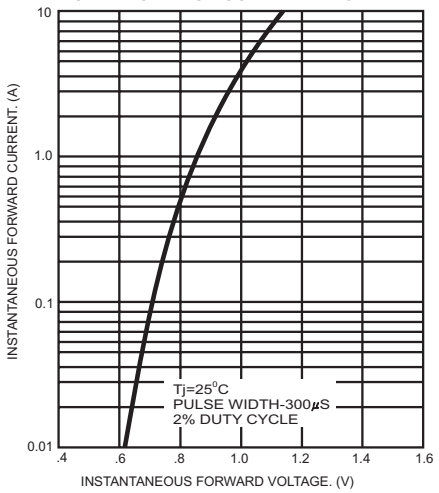



FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

