



## KBL400 - KBL410

**PRV : 50 - 1000 Volts**

**Io : 4.0 Amperes**

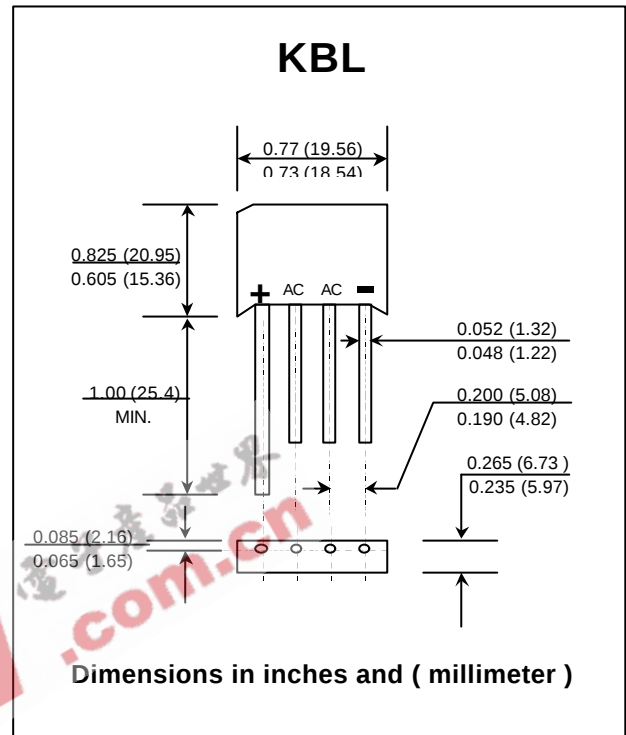
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board

### MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 5.15 grams

## SILICON BRIDGE RECTIFIERS



## 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%.

| RATING                                                                                              | SYMBOL          | KBL 400       | KBL 401 | KBL 402 | KBL 404 | KBL 406 | KBL 408 | KBL 410 | UNIT          |
|-----------------------------------------------------------------------------------------------------|-----------------|---------------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum Recurrent Peak Reverse Voltage                                                              | $V_{RRM}$       | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | Volts         |
| Maximum RMS Voltage                                                                                 | $V_{RMS}$       | 35            | 70      | 140     | 280     | 420     | 560     | 700     | Volts         |
| Maximum DC Blocking Voltage                                                                         | $V_{DC}$        | 50            | 100     | 200     | 400     | 600     | 800     | 1000    | Volts         |
| Maximum Average Forward Current $T_c=50^{\circ}C$                                                   | $I_F(AV)$       | 4.0           |         |         |         |         |         |         | Amps.         |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)          | $I_{FSM}$       | 200           |         |         |         |         |         |         | Amps.         |
| Rating for fusing ( $t < 8.3$ ms.)                                                                  | $I^2t$          | 166           |         |         |         |         |         |         | $A^2S$        |
| Maximum Forward Voltage per Diode at $I_F = 4$ Amps.                                                | $V_F$           | 1.1           |         |         |         |         |         |         | Volts         |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$<br>at Rated DC Blocking Voltage $T_a = 100^{\circ}C$ | $I_R$           | 10            |         |         |         |         |         |         | $\mu A$       |
|                                                                                                     | $I_{R(H)}$      | 1.0           |         |         |         |         |         |         | mA            |
| Typical Thermal Resistance ( Note 1 )                                                               | $R_{\theta JA}$ | 10            |         |         |         |         |         |         | $^{\circ}C/W$ |
| Operating Junction Temperature Range                                                                | $T_J$           | - 50 to + 150 |         |         |         |         |         |         | $^{\circ}C$   |
| Storage Temperature Range                                                                           | $T_{STG}$       | - 50 to + 150 |         |         |         |         |         |         | $^{\circ}C$   |

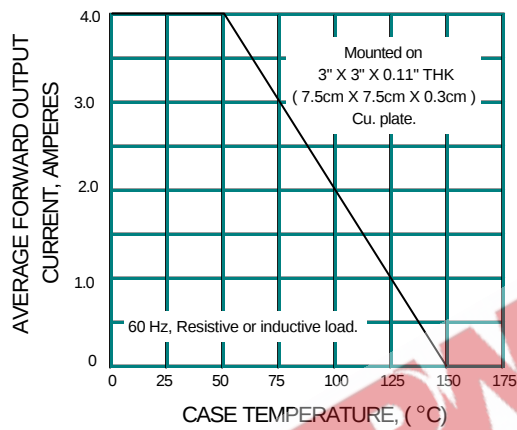
### Notes :

- 1) Thermal resistance from Junction to Ambient with units mounted on a 3" X 3" X 0.11" THK ( 7.5cm X 7.5cm X 0.3cm ) Cu. plate.

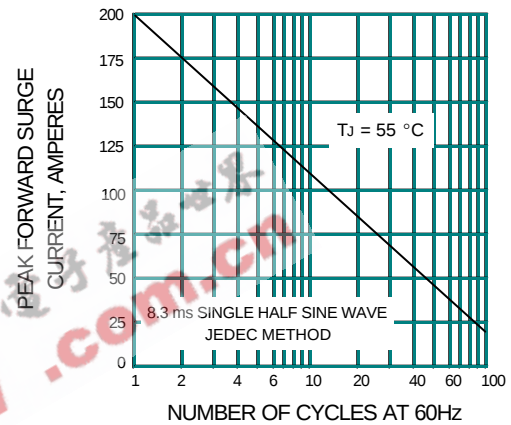
**UPDATE : APRIL 23,1998**

## RATING AND CHARACTERISTIC CURVES ( KBL400 - KBL410 )

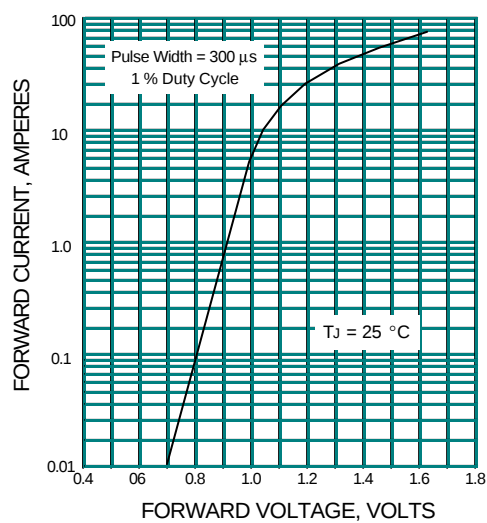
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

