JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

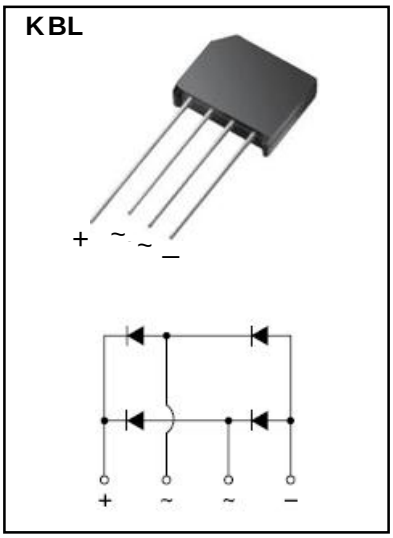
# KBL Plastic-Encapsulate Bridge Rectifier

## KBL6005 THRU KBL610

**General Purpose Bridge Rectifier**

### Features

- $I_O$ 6A
- VRRM 50V-1000V
- High surge current capability
- Glass passivated chip




### Applications

- General purpose 1 phase Bridge rectifier applications

### Marking

- KBL6XX

XX：From 005 To 10

### Limiting Values (Absolute Maximum Rating)

| Item | Symbol | Unit | Conditions | KBL6 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 005 | 01 | 02 | 04 | 06 | 08 | 10 |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average Rectified Output Current | $I_O$ | A | 60Hz sine wave, R-load $T_a$ =40℃ | 6 | | | | | | |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A | 60$H_Z$ half-sine wave, 1 cycle, $T_j$=25℃ | 150 | | | | | | |
| Current Squared Time | $I^2t$ | $A^2S$ | 1ms≤t<8.3ms Tj=25℃， Rating of per diode | 93.375 | | | | | | |
| Storage Temperature | $T_{stg}$ | ℃ | | -55 ~+150 | | | | | | |
| Junction Temperature | $T_j$ | ℃ | | -55 ~+150 | | | | | | |

### Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| Item | Symbol | Unit | Test Condition | Max |
|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | V | $I_{FM}$=6.0A, Pulse measurement, Rating of per diode | 1.1 |
| Peak Reverse Current | $I_{RRM}$ | μA | $V_{RM}$=$V_{RRM}$ , Pulse measurement, Rating of per diode | 10 |
| Thermal Resistance | $R_{\theta J-A}$ | ℃/W | Between junction and ambient | 9 |
| | $R_{\theta J-C}$ | | Between junction and case | 2.4 |

## Typical Characteristics

FIG.1-MAXIMUM NON-REPETITIVE SUNRGE CURRENT

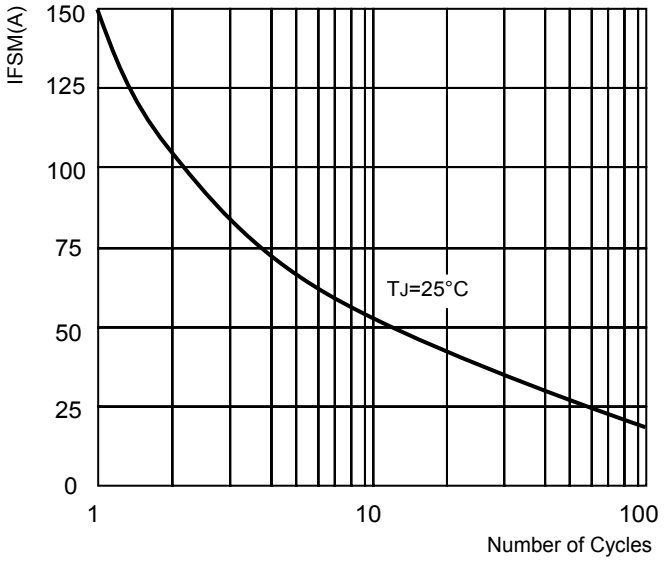



FIG.2-FORWARD CURRENT DERATING CURVE

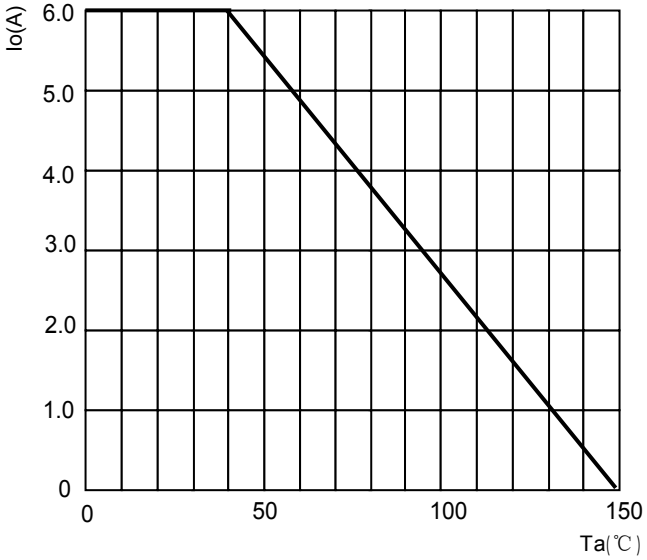



FIG.3-TYPICAL FORWARD CHARACTERISTICS

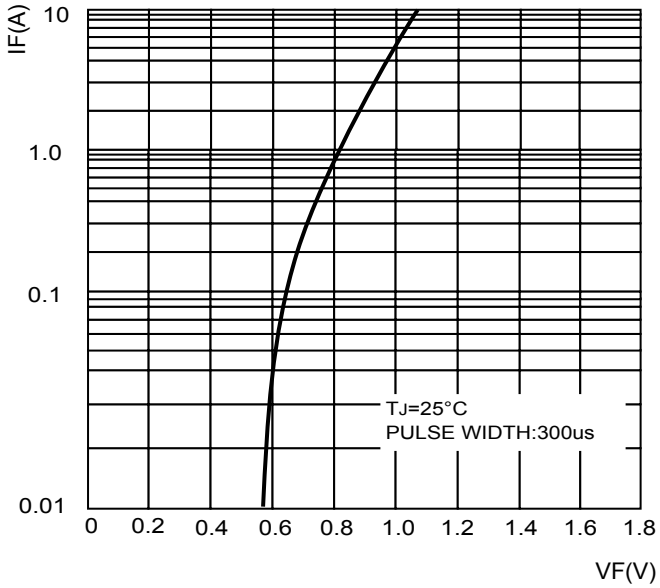
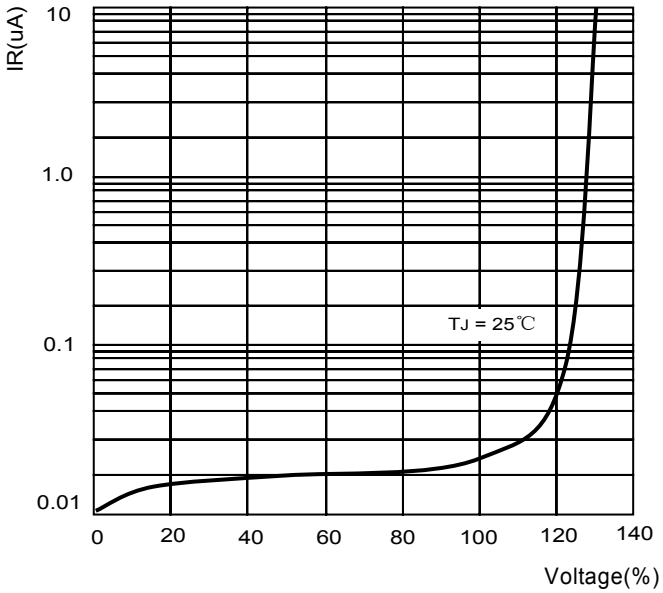
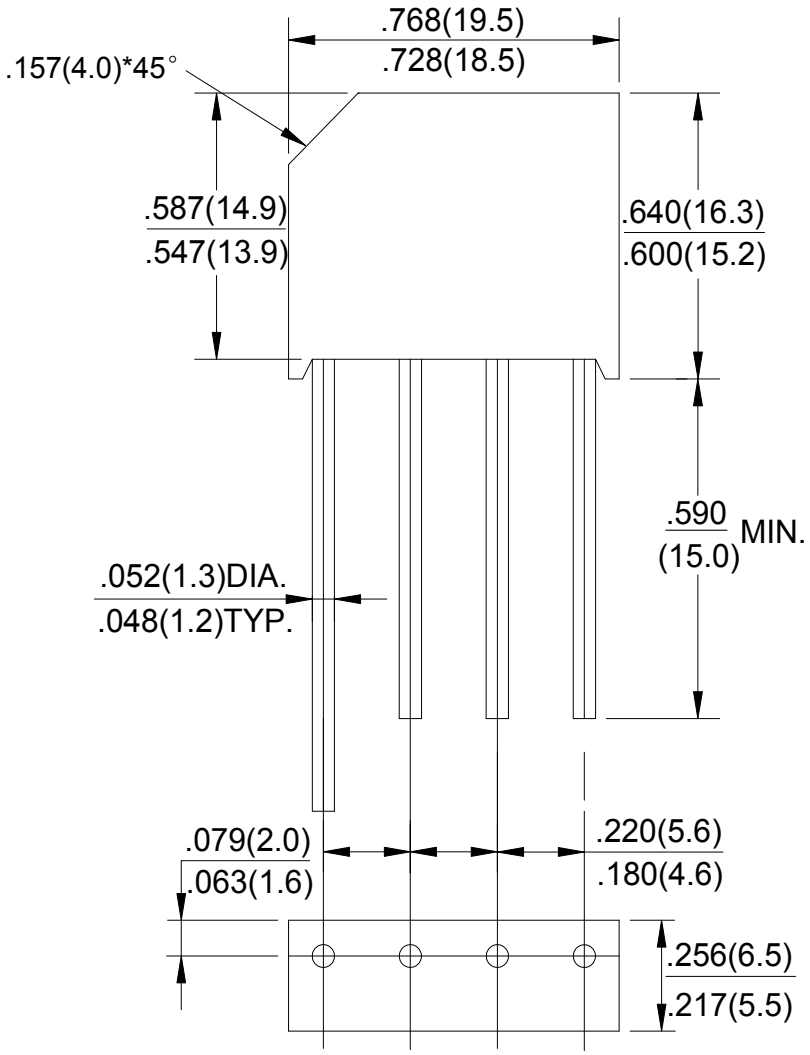



FIG.4-TYPICAL REVERSE CHARACTERISTICS



## KBL Package Outline Dimensions




Dimensions in inches and (milimeters)

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