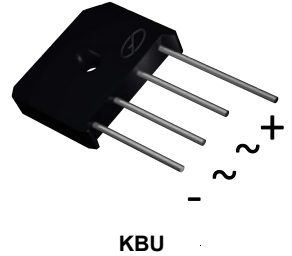
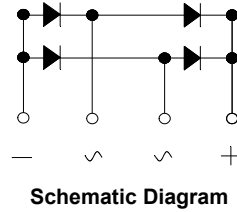


## Features

- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106



## Mechanical Data

- Package: KBU
- Moldig compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

## Maximum Ratings and Electrical Characteristics

( $T_A=25^\circ\text{C}$  unless otherwise noted)

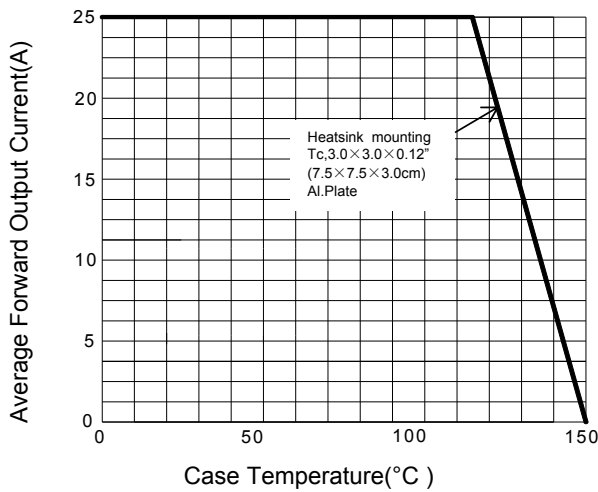
| Parameter   | Symbol    | KBU 25005   | KBU 2501 | KBU 2502 | KBU 2504 | KBU 2506 | KBU 2508 | KBU 2510 | Unit             |
|---|-----------|-------------|----------|----------|----------|----------|----------|----------|------------------|
| Repetitive Peak Reverse Voltage   | $V_{RRM}$ | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                |
| Average Rectified Output Current @60Hz sine wave, R-load, $T_C=115^\circ\text{C}$                 | $I_O$     | 25          |          |          |          |          |          |          | A                |
| Surge (Non-repetitive) Forward Current @60Hz half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$      | $I_{FSM}$ | 400         |          |          |          |          |          |          | A                |
| Current Squared Time @1ms $\leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$ , Rating of per diode | $I^2t$    | 666         |          |          |          |          |          |          | A <sup>2</sup> S |
| Maximum instantaneous forward voltage drop per diode  | $V_F$     | 1.1         |          |          |          |          |          |          | V                |
| Maximum DC reverse current at rated DC blocking voltage per diode                                 | $I_{RRM}$ | 10          |          |          |          |          |          |          | $\mu\text{A}$    |
| Storage Temperature   | $T_{STG}$ | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$ |
| Junction Temperature  | $T_J$     | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$ |

## Thermal Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

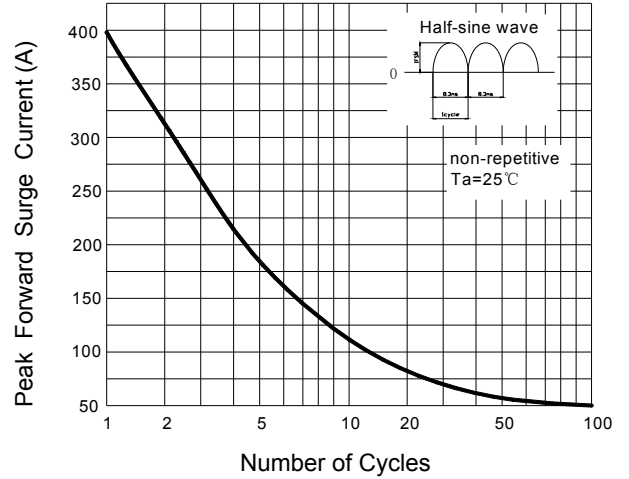
|  |                  |                    |                           |
|--|------------------|--------------------|---------------------------|
| Thermal Resistance Junction to Ambient | $R_{\theta J-C}$ | 1.4 <sup>(1)</sup> | $^\circ\text{C}/\text{W}$ |
|--|------------------|--------------------|---------------------------|

Note 1. Units Mounted on an aluminum plate heat sink.

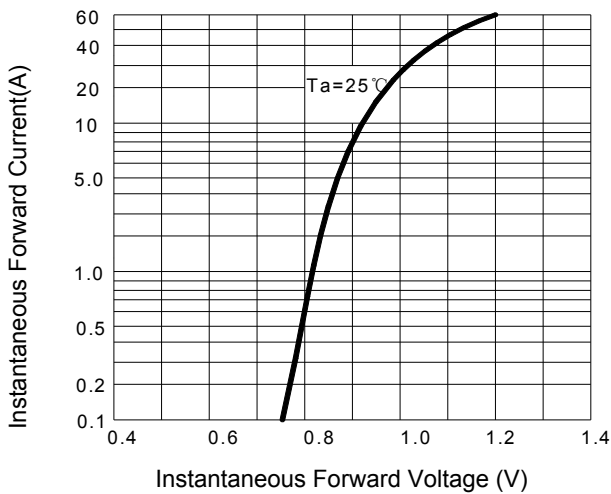
## Typical Electrical and Thermal Characteristic Curves



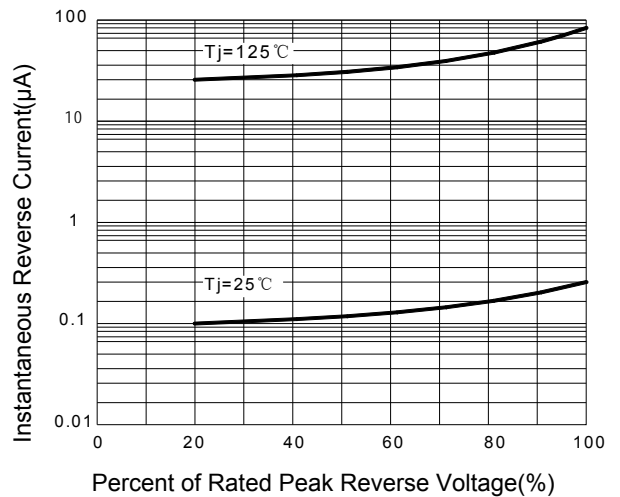
**Figur 1.  $I_o$ - $T_c$  Curve**



**Figure 2. Surge Forward Current Capability**



**Figure 3. Instantaneous Forward Voltage**



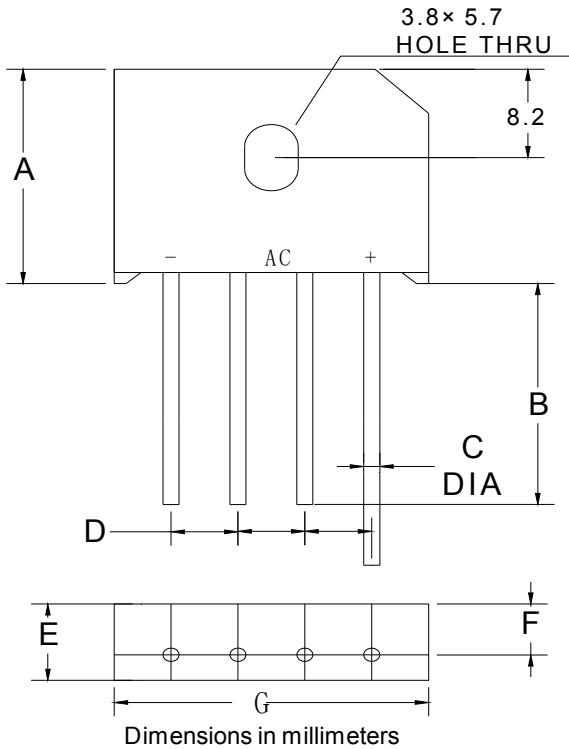
**Figure 4. Typical Reverse Characteristics**

# KBU25005 thru KBU2510

Bridge Rectifiers  
 Reverse Voltage 50-1000V Output Current 25A

## Package Outline Dimensions

**KBU**



| KBU |      |      |
|-----|------|------|
| Dim | Min  | Max  |
| A   | 18.8 | 19.8 |
| B   | 20.0 | /    |
| C   | 1.2  | 1.3  |
| D   | 4.6  | 5.6  |
| E   | 6.8  | 7.1  |
| F   | 4.6  | 5.0  |
| G   | 22.7 | 23.7 |