

# KBU35005 thru KBU3510

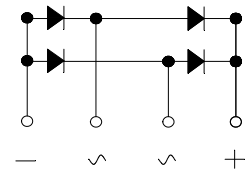
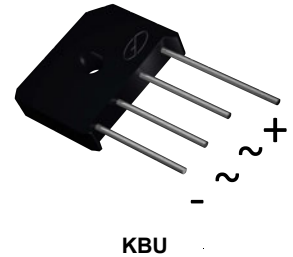
Single-Phase Bridge Rectifiers  
 Reverse Voltage 50-1000V Output Current 35A

## Features

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

## Mechanical Data

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



Schematic Diagram

## Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	KBU 35005	KBU 3501	KBU 3502	KBU 3504	KBU 3506	KBU 3508	KBU 3510	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Average Rectified Output Current @60Hz sine wave, R-load, $T_C=115^\circ\text{C}$	$I_O$	35							A
Surge(Non-repetitive)ForwardCurrent @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 @ $I_{FM}=17.5\text{A}$	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode $V_{RM}=V_{RRM}$	$I_{RRM}$	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 Case	$R_{\theta JC}$	1.4 <sup>1</sup>	$^\circ\text{C/W}$
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Note 1. Units Mounted on an aluminum plate heat sink.

## Typical Electrical and Thermal Characteristic Curves

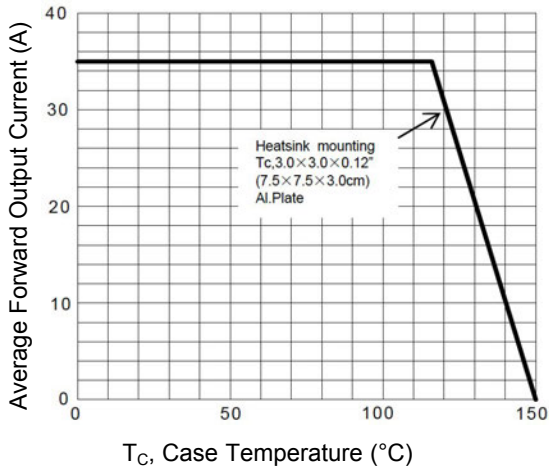


Figure 1.  $I_o - T_c$  Curve

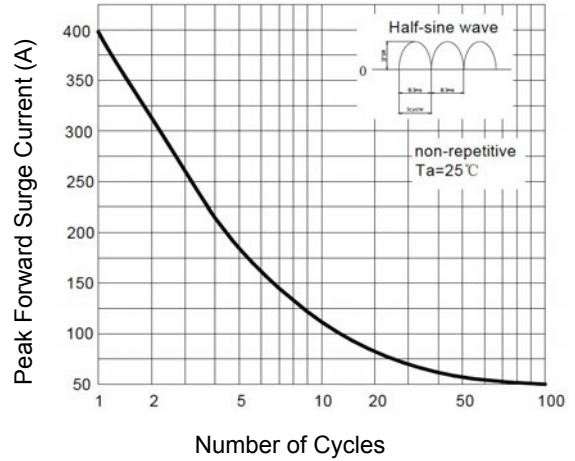


Figure 2. Surge Forward Current Capability

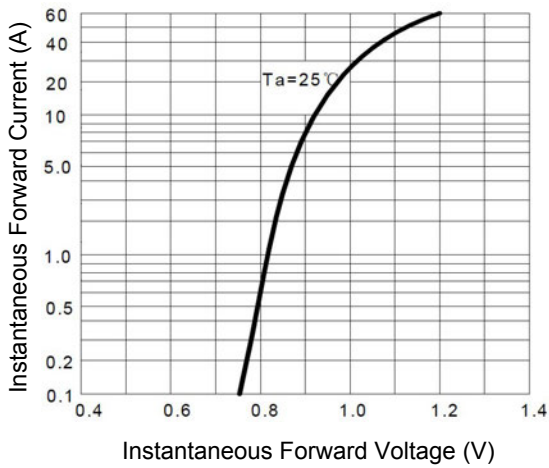


Figure 3. Instantaneous Forward Voltage

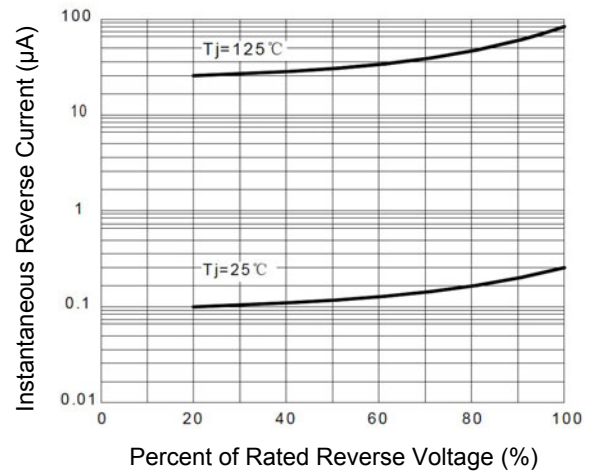
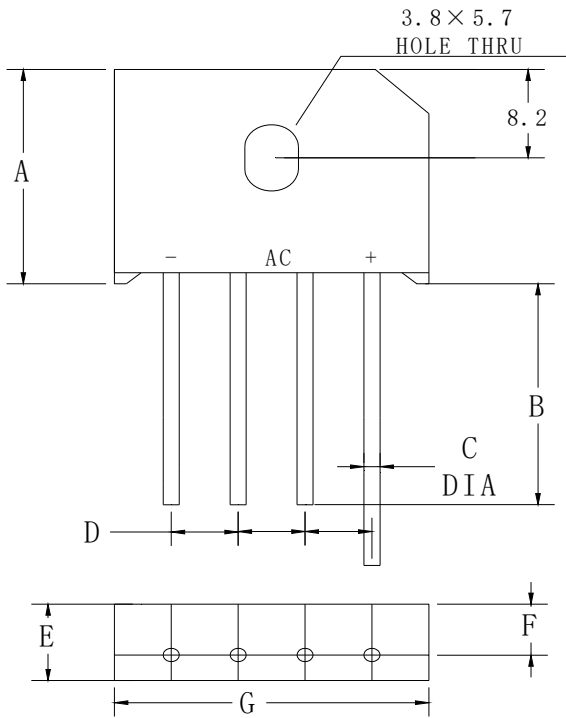


Figure 4. Typical Reverse Characteristics

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## **Package Outline Dimensions KBU**



Dimensions in millimeters

<b>KBU</b>		
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