

### ■ FEATURES

- UL recognition, file #E230084
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### ■ TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

### ■ MECHANICAL DATA

- **Package:** KBU  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■ MAXIMUM RATINGS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU25005	KBU2501	KBU2502	KBU2504	KBU2506	KBU2508	KBU2510
Device marking code			KBU25005	KBU2501	KBU2502	KBU2504	KBU2506	KBU2508	KBU2510
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>c</sub> =115°C	I <sub>O</sub>	A	25						
Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	400						
Current Squared Time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	666						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~+150						

### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBU25005	KBU2501	KBU2502	KBU2504	KBU2506	KBU2508	KBU2510
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =12.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	µA	V <sub>RM</sub> =VRRM	10						

### ■ THERMAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU25005	KBU2501	KBU2502	KBU2504	KBU2506	KBU2508	KBU2510
Thermal Resistance Between junction and case,	R <sub>θJ-C</sub>	°C/W	1.4 <sup>(1)</sup>						

Notes (1) Units Mounted on an aluminum plate heat sink.

### ■ PACKAGING INFORMATION

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBU25005-KBU2510	A1	Approximate 7.2	400	400	2400	Paper Box

■ **CHARACTERISTICS (TYPICAL)**

FIG1:  $I_o$ - $T_c$  Curve

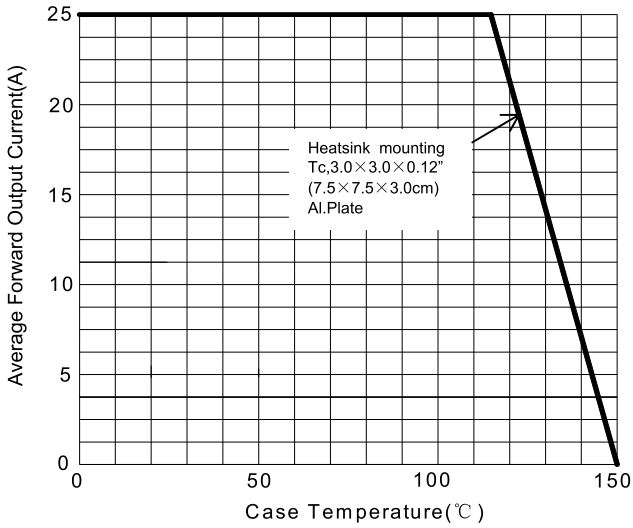


FIG2: Surge Forward Current Capability

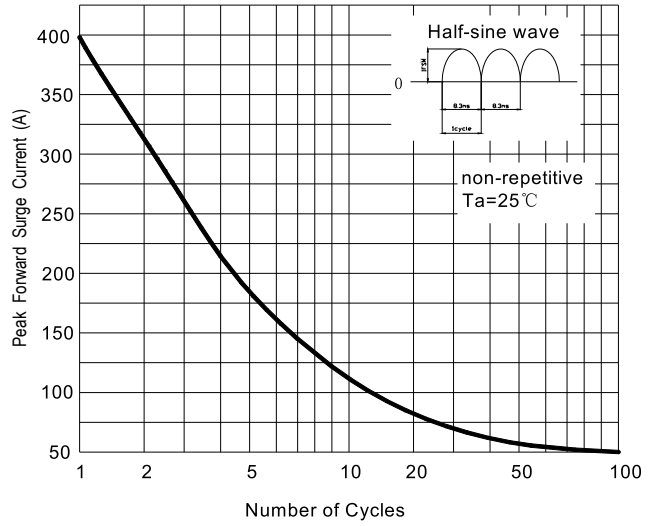


FIG3: Instantaneous Forward Voltage

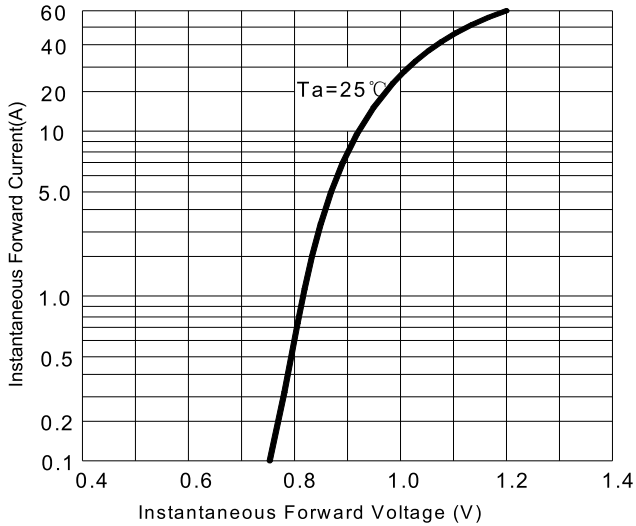
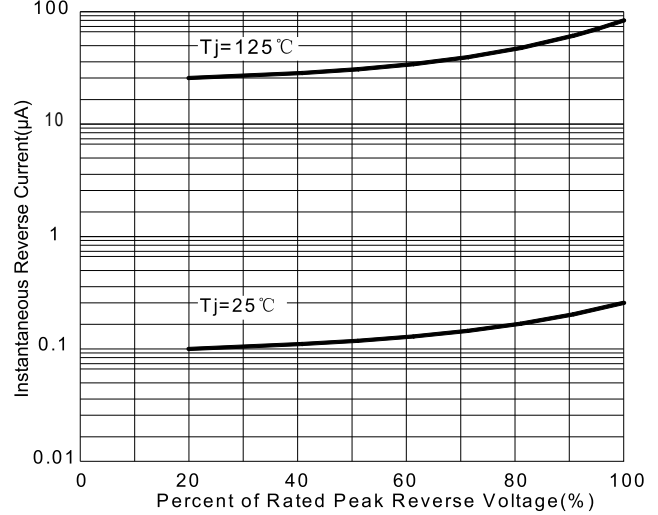
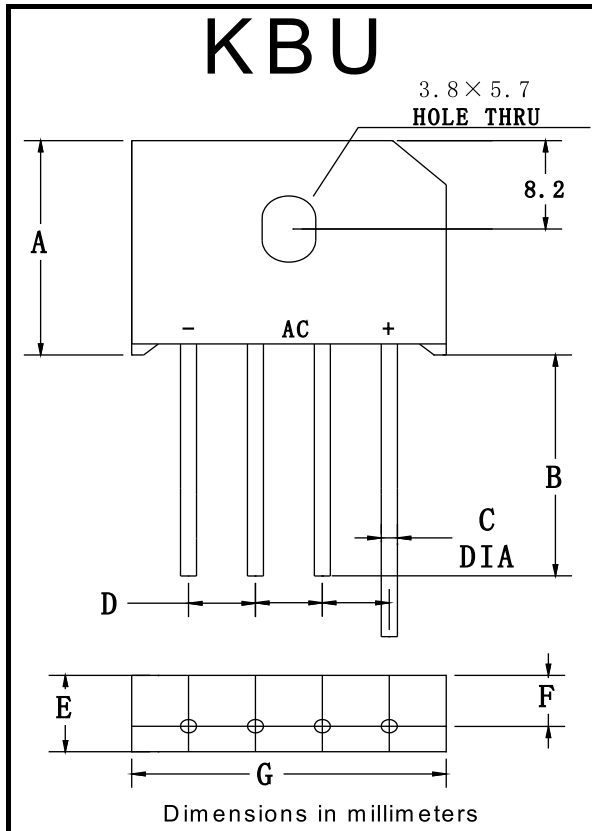


FIG4: Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



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