

■ 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_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU4005	KBU401	KBU402	KBU404	KBU406	KBU408	KBU410
Device marking code			KBU4005	KBU401	KBU402	KBU404	KBU406	KBU408	KBU410
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load	I _O	A	With heatsink T _c =110°C						
			Without heatsink T _a =25°C						
Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, T _a =25°C	IFSM	A	120						
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,Rating of per diode	I ² t	A ² S	60						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55 ~+150						

■ ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBU4005	KBU401	KBU402	KBU404	KBU406	KBU408	KBU410
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =VRRM	10						

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU4005	KBU401	KBU402	KBU404	KBU406	KBU408	KBU410
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	25 ⁽¹⁾						
	Between junction and case, With heatsink	R _{θJ-C}	7.5 ⁽²⁾						

Notes

- (1) Thermal resistance from junction to ambient with units mounted in free air ,no heat sink,P.C.B. at 0.375" (9.5mm) lead length with 0.5×0.5"(12×12mm) copper pads.
- (2) Thermal resistance from junction to case with 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
KBU4005~KBU410	A1	Approximate 7.2	400	400	2400	Paper Box

■ **CHARACTERISTICS (TYPICAL)**

FIG1:Io-Tc Curve

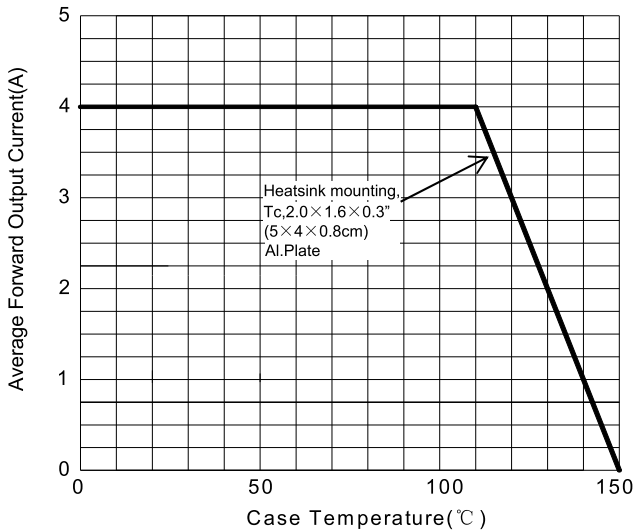


FIG2: Surge Forward Current Capability

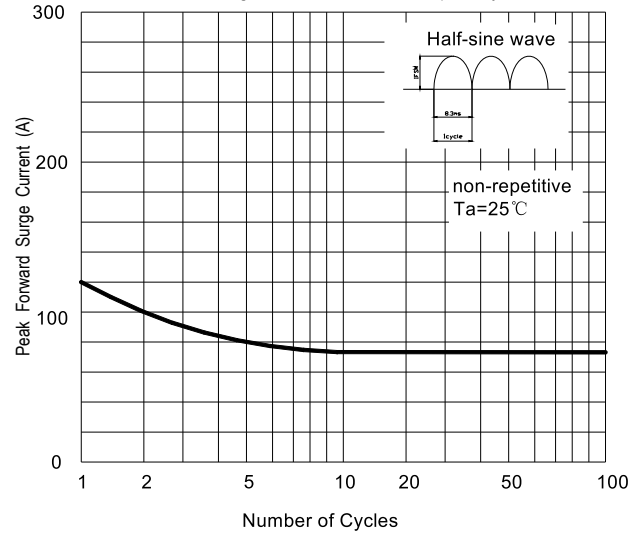


FIG3: Instantaneous Forward Voltage

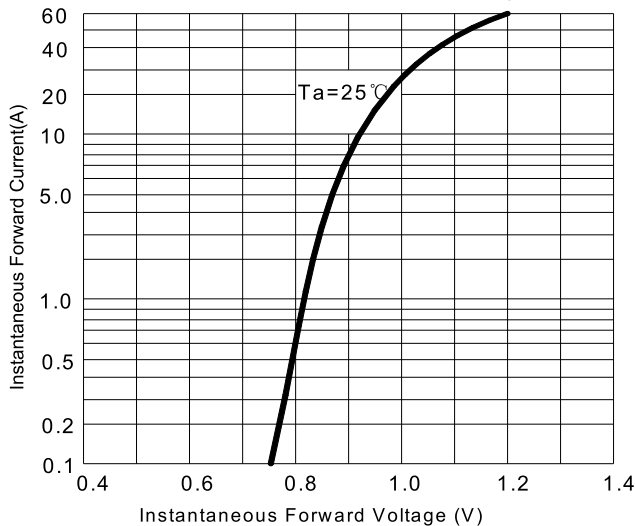
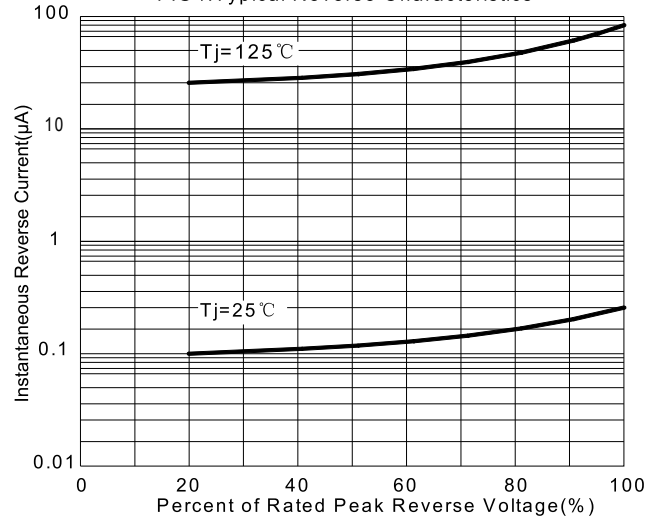
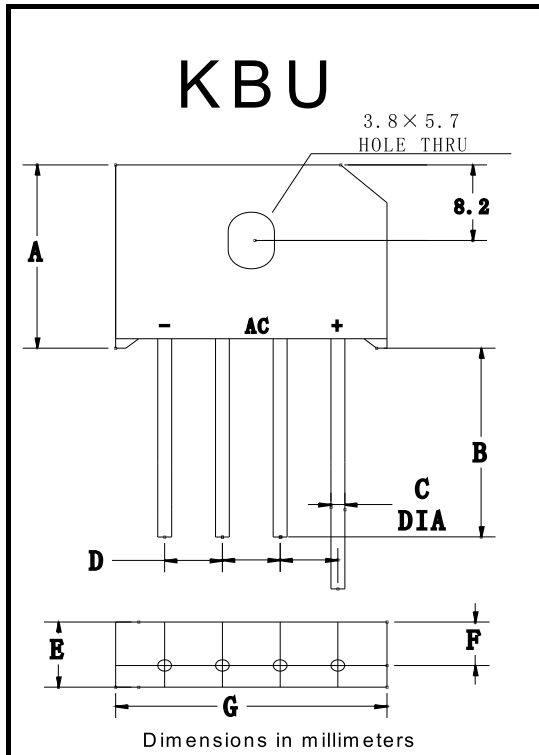


FIG4: Typical Reverse Characteristics



■ **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