

■ **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** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Device marking code			KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink $T_c=105^{\circ}\text{C}$	IO	A	6					
	Without heatsink $T_a=25^{\circ}\text{C}$			2.5					
Surge(Non-repetitive)Forward Current @60Hz half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$	IFSM	A	135						
Current Squared Time @ $1\text{ms}\leq t\leq 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$ , Rating of per diode	$I^2t$	$\text{A}^2\text{S}$	75						
Storage Temperature	$T_{\text{stg}}$	$^{\circ}\text{C}$	-55 ~+150						
Junction Temperature	$T_j$	$^{\circ}\text{C}$	-55 ~+150						

■ **ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Maximum instantaneous forward voltage drop per diode	$V_F$	V	IFM=3A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM}$	$\mu\text{A}$	$V_{RM}=V_{RRM}$	10						

■ **THERMAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	26 <sup>(1)</sup>					
	Between junction and case, With heatsink	$R_{\theta J-C}$		5 <sup>(2)</sup>					

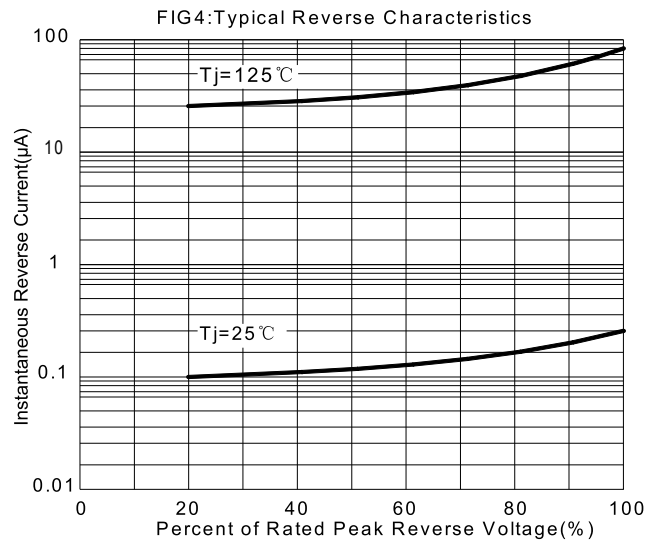
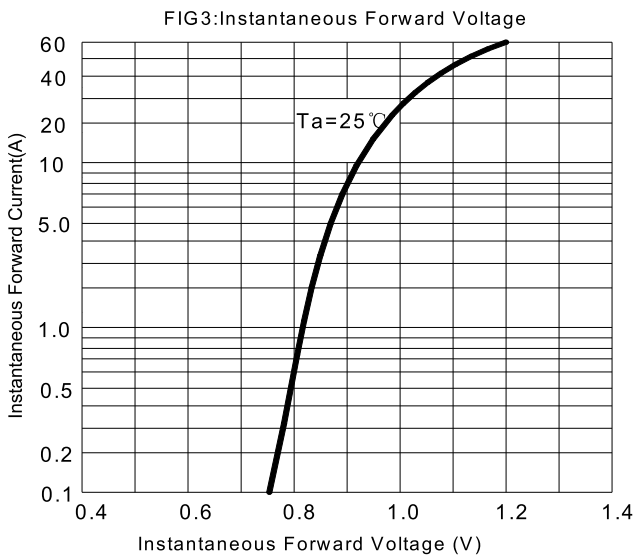
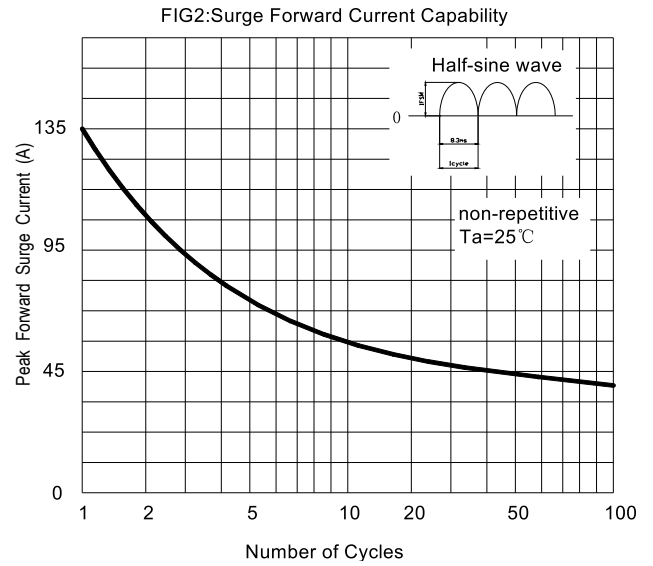
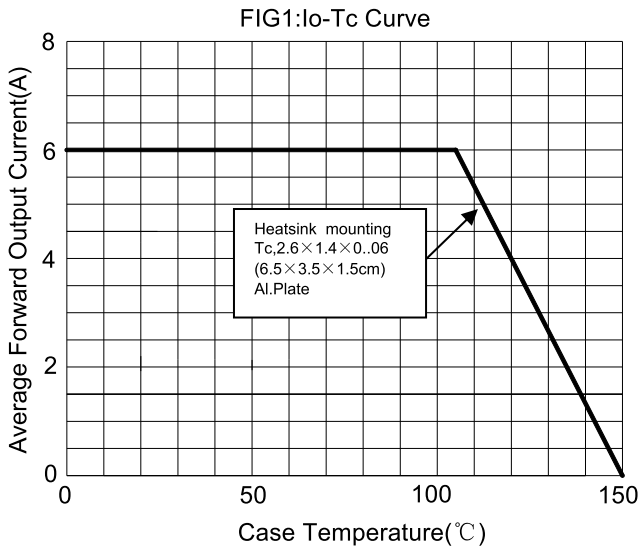
Notes

- (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 0.5x0.5" (12x12mm) copper pads.
- (2) Thermal resistance from junction to case with units mounted on an aluminum plate heat sink.

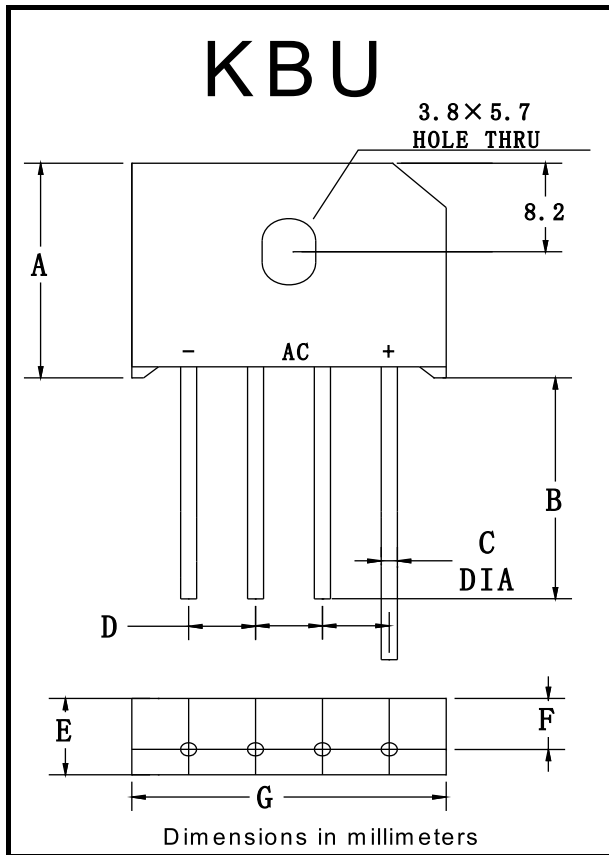
■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBU6005~KBU610	A1	Approximate 7.2	400	400	2400	Paper Box

■ **CHARACTERISTICS (TYPICAL)**



■ **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