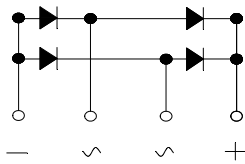
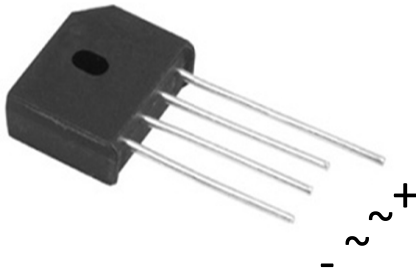


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Device marking code			KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =120°C	IO	A	6.0					
	Without heatsink T <sub>a</sub> =25°C			2.5					
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	135						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			270						
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	75.6						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						



# KBU6005 THRU KBU610

## ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =3.0A							1.0	
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C							5	
			T <sub>j</sub> =125°C							100	
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C							40	

## ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

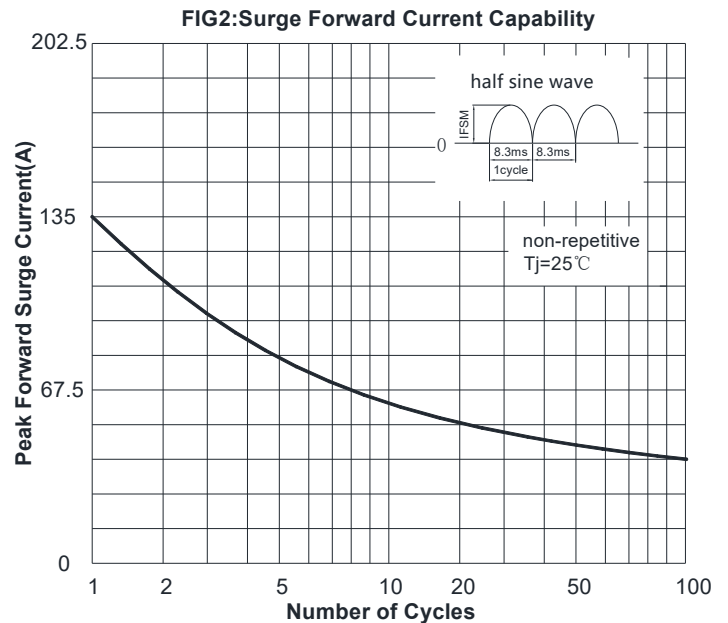
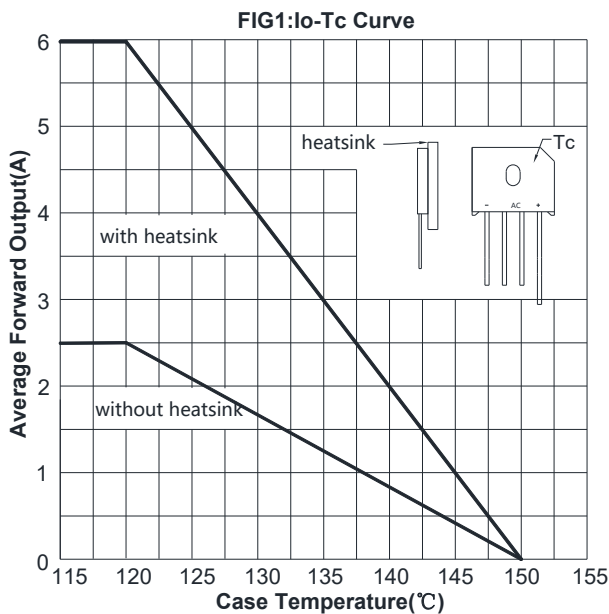
PARAMETER		SYMBOL	UNIT	KBU6005	KBU601	KBU602	KBU604	KBU606	KBU608	KBU610	
Typical Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W							25.0	
	Between junction and case, With heatsink	R <sub>θJ-C</sub>								2.2	

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM 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)





# KBU6005 THRU KBU610

FIG3: Typical Forward Voltage

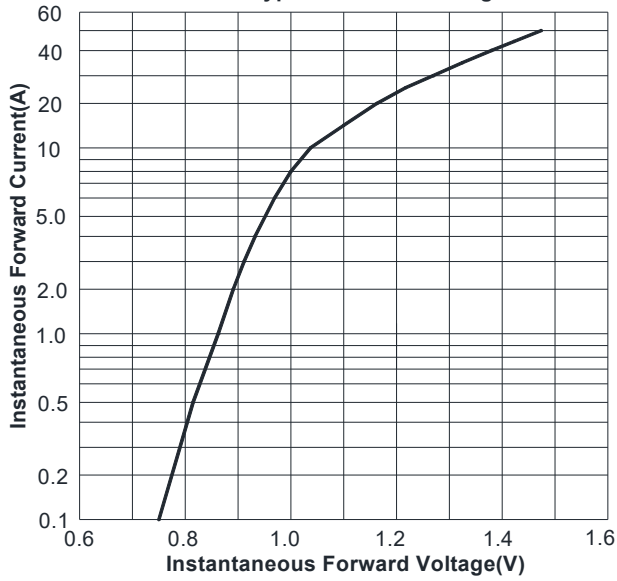
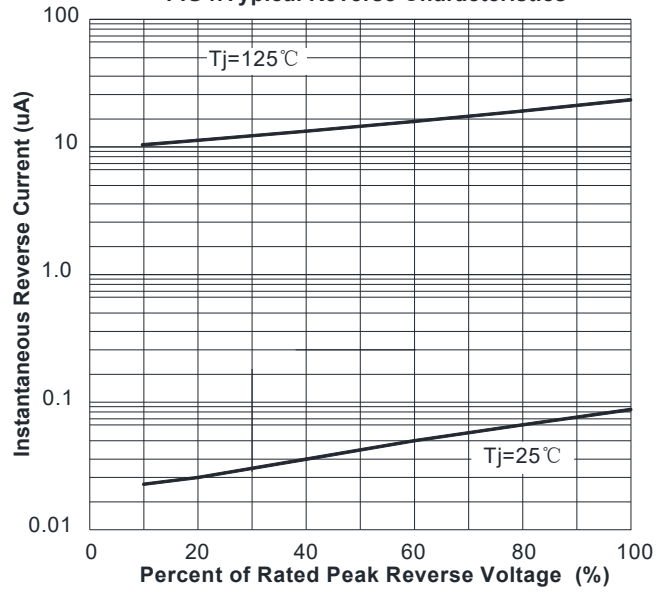
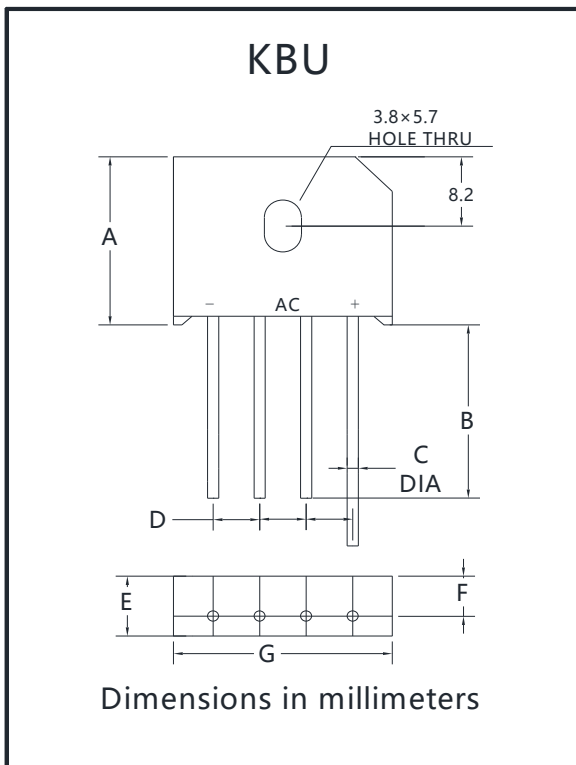


FIG4: Typical Reverse Characteristics



## 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



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