

Bridge Rectifiers

Features

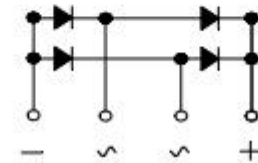
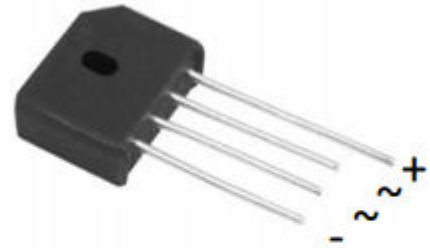
- UL recognition, file #E230084
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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	With heatsink T _c =110°C	IO	A	4					
	Without heatsink T _a =25°C			2.2					
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} =4A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _{RRM}	10						

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

PARAMETER		SYMBOL	UNIT	KBU4005	KBU401	KBU402	KBU404	KBU406	KBU408	KBU410
Thermal Resistance	Between junction and ambient, Without heatsink	R θ J-A	°C/W	25 ⁽¹⁾						
	Between junction and case, With heatsink	R θ J-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.

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM 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:I_o-T_c Curve

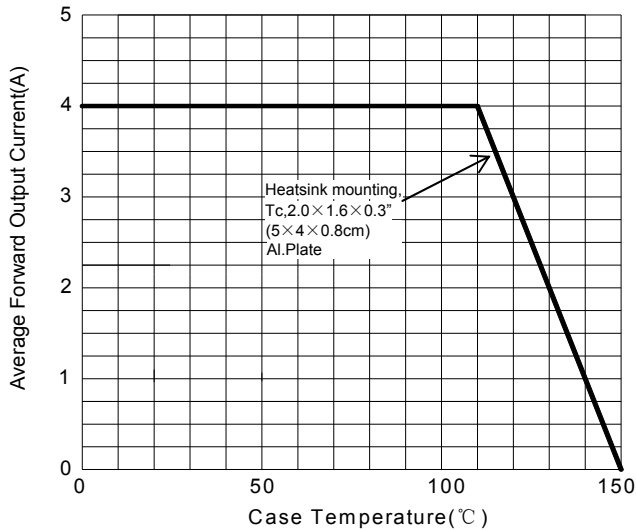


FIG2: Surge Forward Current Capability

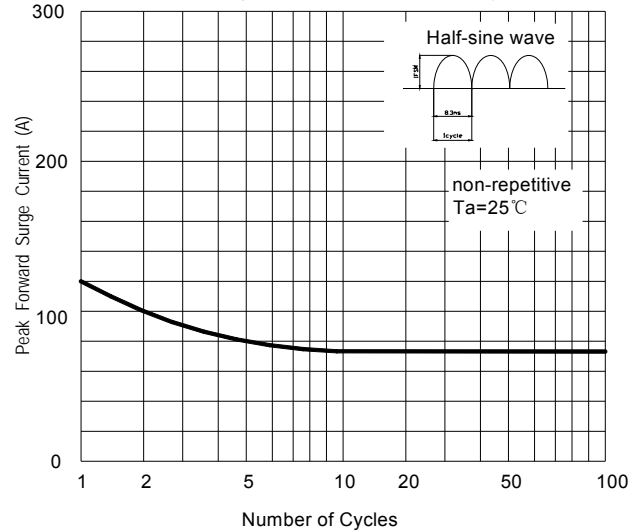


FIG3: Instantaneous Forward Voltage

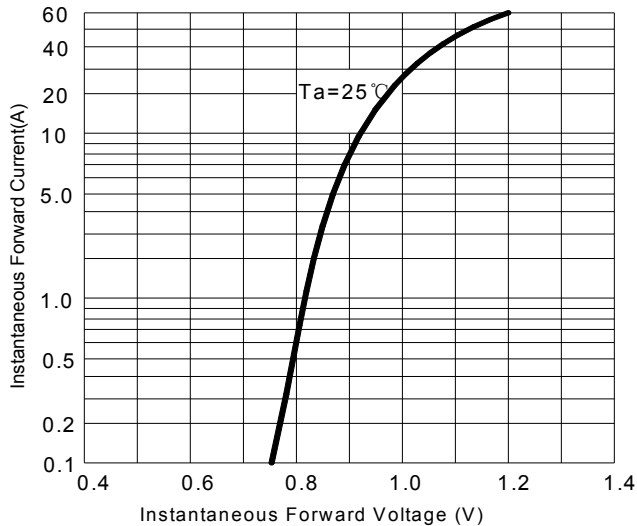
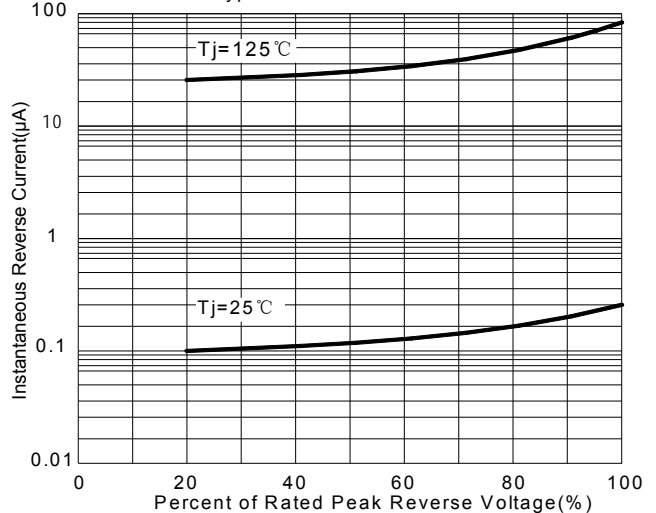
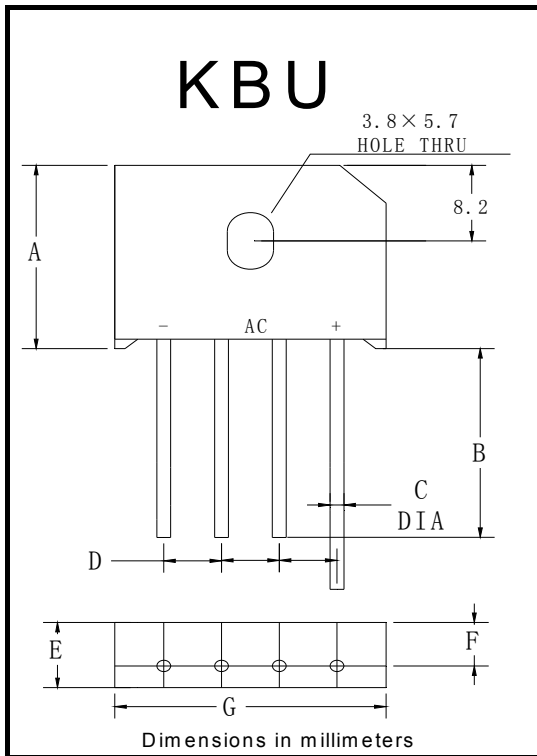


FIG4: Typical Reverse Characteristics



■ 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

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