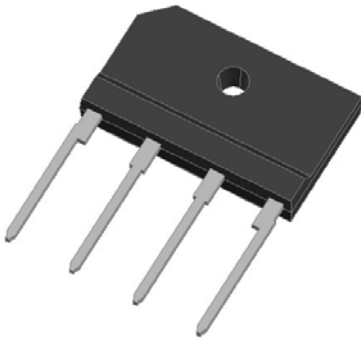


## Bridge Rectifiers

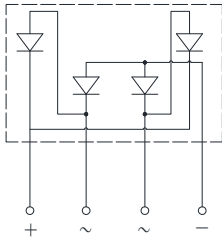


### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- 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:** 4KBJ  
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	KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Device marking code			KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
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 $T_c=110^\circ\text{C}$	IO	A	10.0					
	Without heatsink $T_a=25^\circ\text{C}$			3.6					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	175						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			350						
Current squared time @1ms $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$ , rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	127						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=5.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	$T_j=25^\circ\text{C}$	5						
			$T_j=125^\circ\text{C}$	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	53						



# KBJ10005 THRU KBJ1010

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

PARAMETER		SYMBOL	UNIT	KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	20						
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		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
KBJ10005 ~ KBJ1010	B1	Approximate 4.27	20	1000	2000	Tube

## ■ Characteristics(Typical)

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

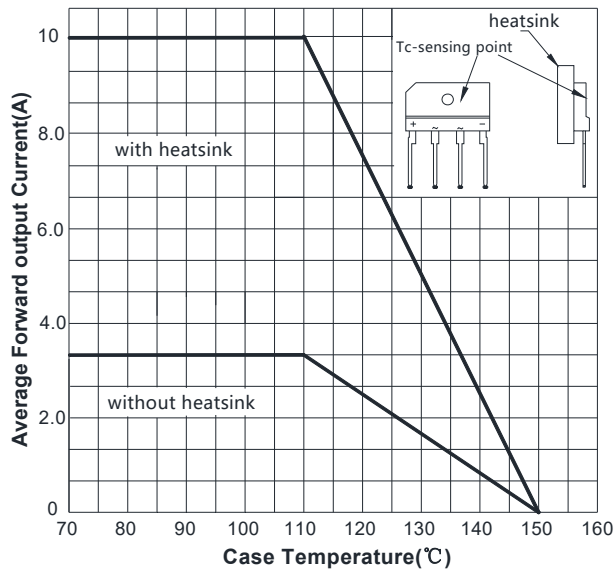


FIG2: Surge Forward Current Capability

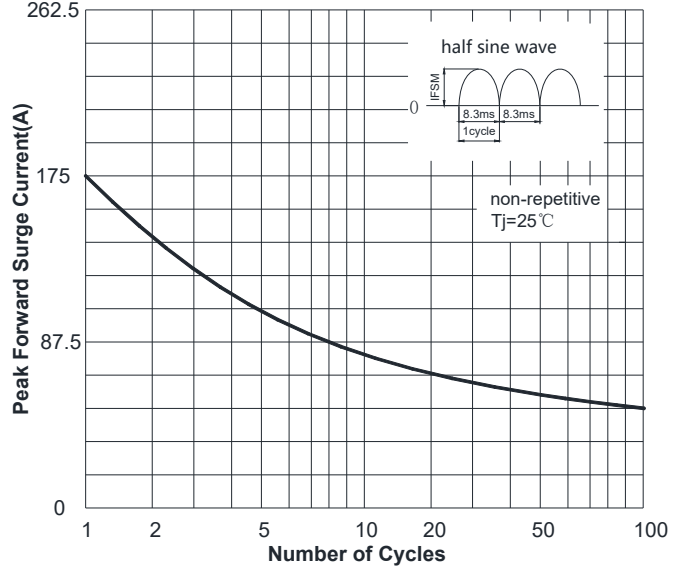


FIG3: Typical Forward Voltage

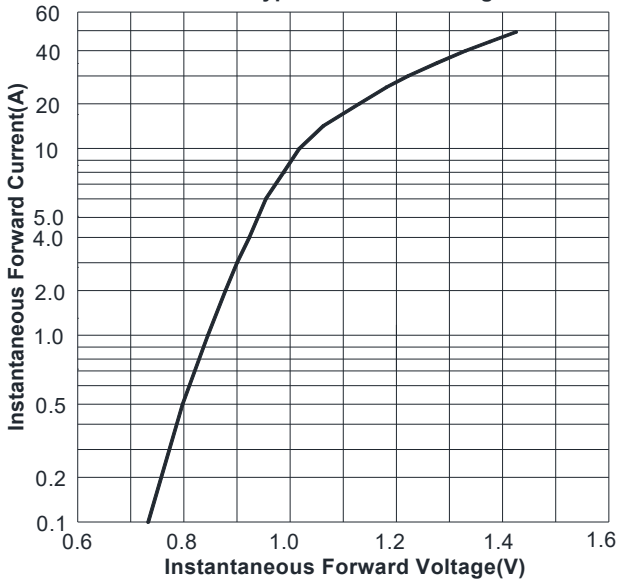
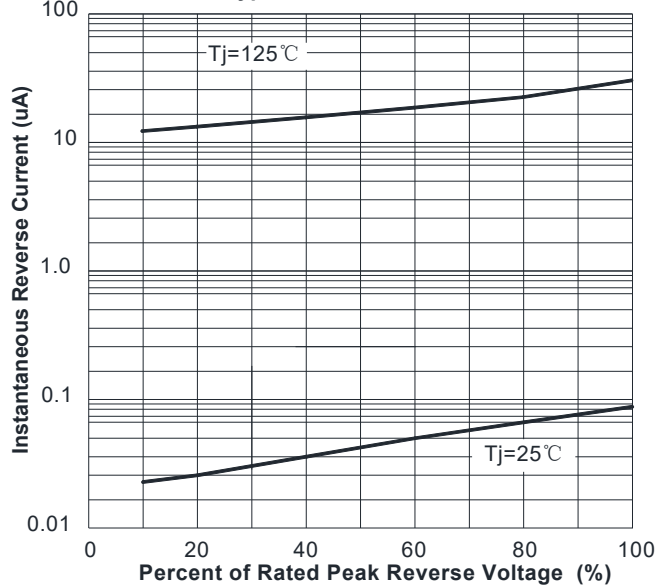


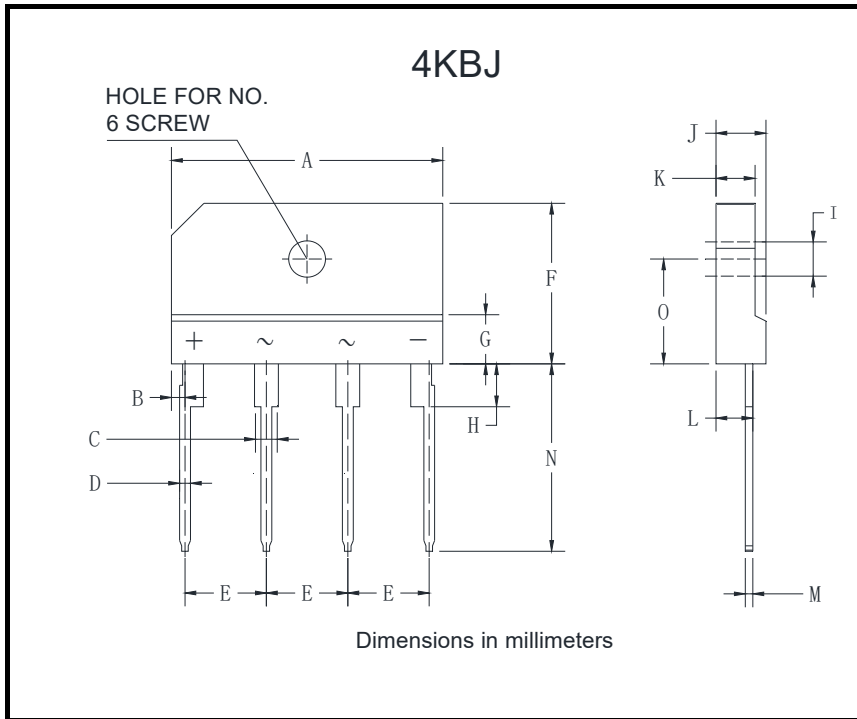
FIG4: Typical Reverse Characteristics





# KBJ10005 THRU KBJ1010

## ■ Outline Dimensions



4KBJ		
Dim	Min	Max
A	24.7	25.3
B	1.05	1.45
C	1.7	2.1
D	0.9	1.1
E	7.3	7.7
F	14.7	15.3
G	3.8	4.2
H	3.3	3.7
I	3.1	3.4
J	4.4	4.8
K	3.4	3.8
L	3.2	3.4
M	0.6	0.8
N	17.0	18.0
O	9.5	10.1



## KBJ10005 THRU KBJ1010

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