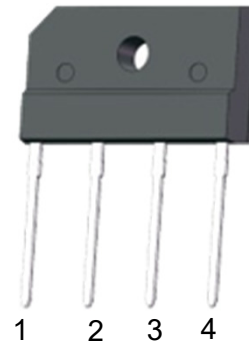
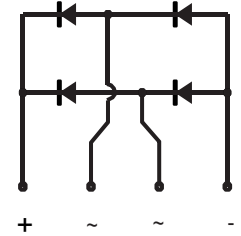


## Feature

- Reverse Voltage - 50 to 1000V
- Forward Current - 10A
- Polarity: As marked on body
- Surge overload rating -175 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The flammability classification 94V-0
- Plastic material has U/L(UL Recognition File #E501500)



**KBJ-2**  
**Top View**



**Circuit Diagram**

## Mechanical Characteristics

- Polarity : Symbols molded on body
- Weight: 0.147 ounces , 4.17 grams

PIN	DESCRIPTION
1	Output Anode (+)
2	Input Pin (~)
3	Input Pin (~)
4	Output Cathode (-)

## Absolute maximum rating & Electrical Characteristics @25°C

Parameter		Symbol	PKBJ 10005	PKBJ 1001	PKBJ 1002	PKBJ 1004	PKBJ 1006	PKBJ 1008	PKBJ 1010	Units
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward @ Fig.1 (with heatsink Note 2)		I <sub>F(AV)</sub>	10							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I <sub>FSM</sub>	175							A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			350							
Rating for fusing (3ms≤t≤8.3ms)		I <sup>2</sup> t	127							A <sup>2</sup> s
Maximum Forward Voltage at 5A DC		V <sub>F</sub>	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>J</sub> = 25 °C	I <sub>R</sub>	5.0							μA
	T <sub>J</sub> = 125 °C		500							
Typical Junction Capacitance <sup>1)</sup>		C <sub>J</sub>	51							pF
Typical Thermal Resistance <sup>2)</sup>		R <sub>θJA</sub>	18							°C/W
		R <sub>θJC</sub>	4.0							
		R <sub>θJL</sub>	7.0							
Operating and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55~+150							°C

Notes:

1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2) Device mounted on 32mm\*30mm\*15mm Al Block Heat sink.

## Typical Characteristics

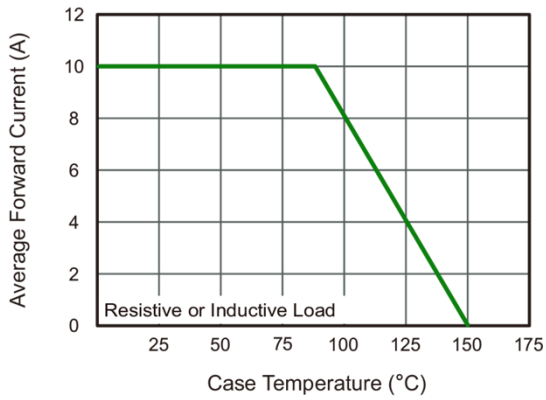


Fig.1 Forward Current Derating Curve

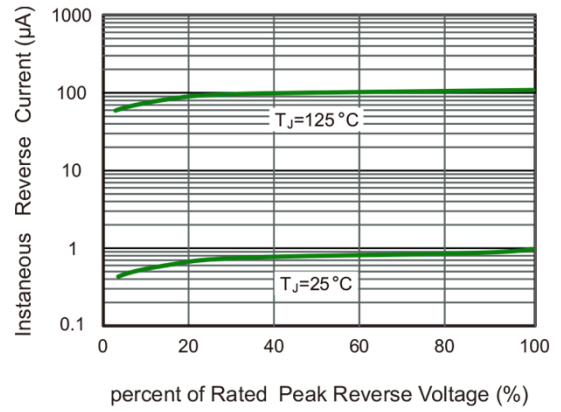


Fig.2 Typical Instantaneous Reverse Characteristics

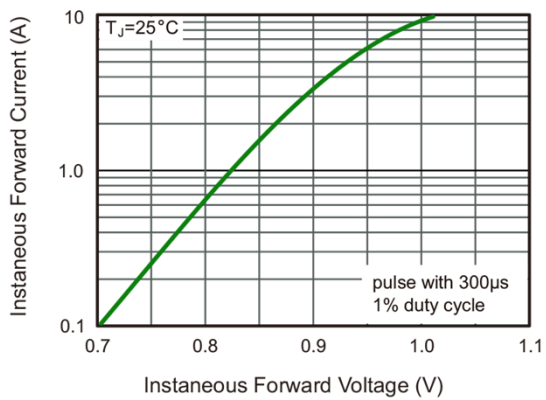


Fig.3 Typical Forward Characteristic

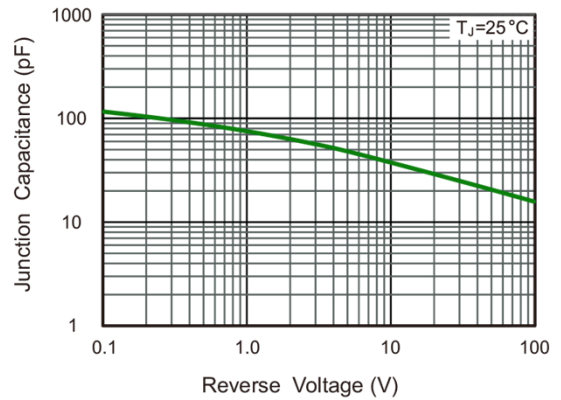


Fig.4 Typical Junction Capacitance

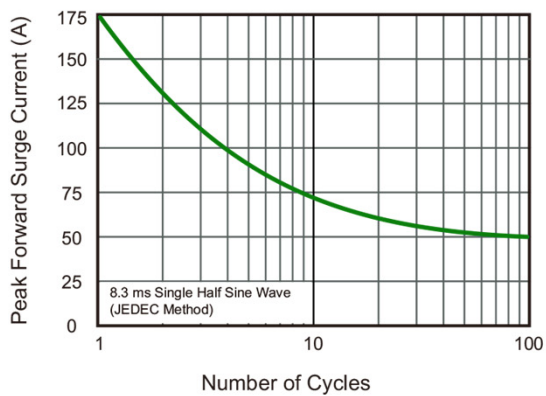
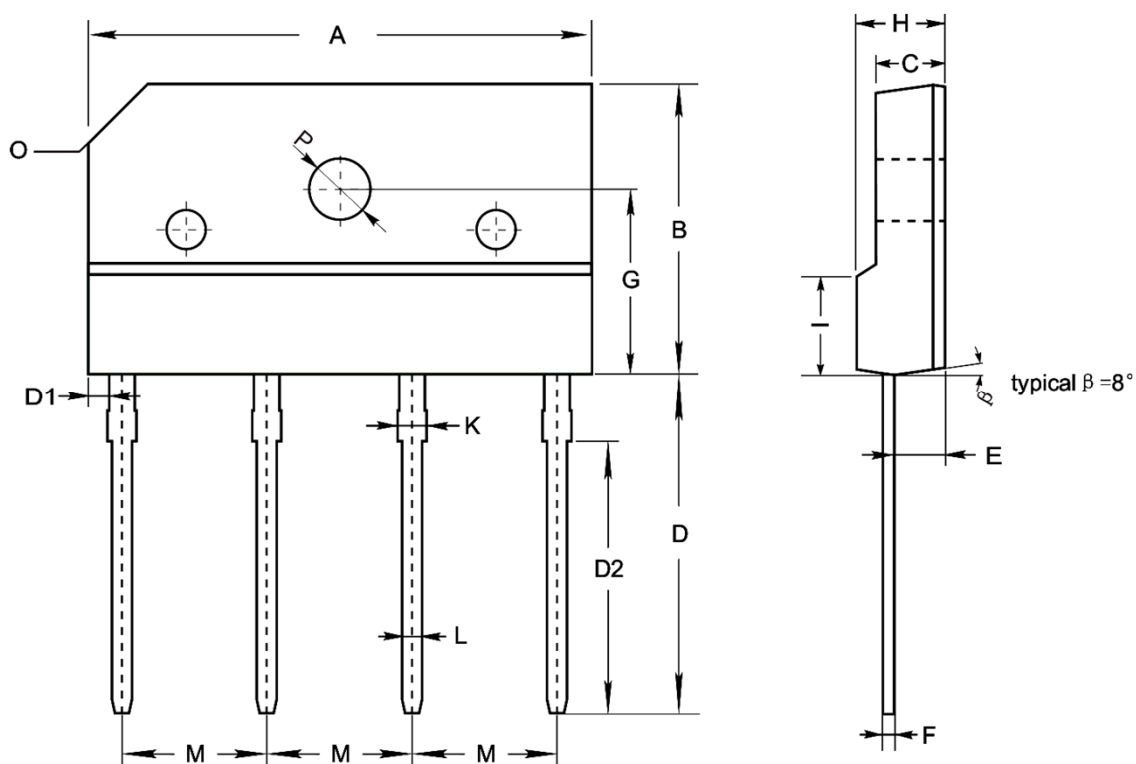


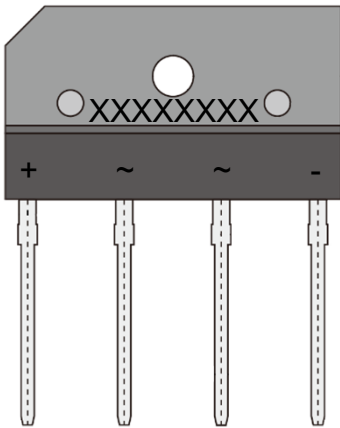
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

## Product Dimension (KBJ-2)




Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	25.7	26.3	1.012	1.035
B	14.7	15.3	0.579	0.602
C	3.4	3.8	0.134	0.150
D	17	18	0.669	0.709
E	1.0	1.4	0.039	0.055
F	13.8	14.2	0.543	0.559
G	2.45	2.85	0.096	0.112
H	0.4	0.7	0.016	0.028
I	9.3	9.8	0.366	0.386
J	4.4	4.8	0.173	0.189
K	3.8	4.2	0.150	0.165
L	1.2	1.6	0.047	0.063
M	0.85	1.15	0.033	0.045
N	7.3	7.7	0.287	0.303
O	C3.0		C0.118	
P	φ3.00	φ3.60	φ0.118	φ0.142

Marking information



Type number	Marking code
PKBJ10005	KBJ10005
PKBJ1001	KBJ1001
PKBJ1002	KBJ1002
PKBJ1004	KBJ1004
PKBJ1006	KBJ1006
PKBJ1008	KBJ1008
PKBJ1010	KBJ1010


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