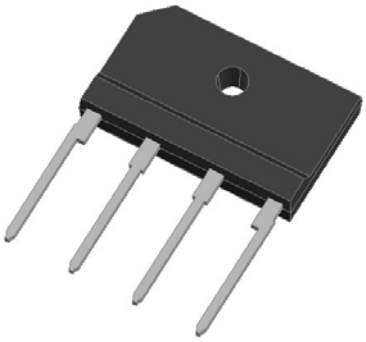
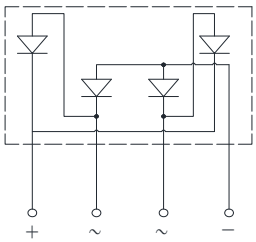
Bridge Rectifiers





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℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	KBJ15005A	KBJ1501A	KBJ1502A	KBJ1504A	KBJ1506A	KBJ1508A	KBJ1510A
Device marking code				KBJ15005A	KBJ1501A	KBJ1502A	KBJ1504A	KBJ1506A	KBJ1508A	KBJ1510A
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage		V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage		V_{DC}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T_C =105℃	I_O	A	15.0						
	Without heatsink T_a =25℃			3.6						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	250						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				500						
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode		I^2t	A^2S	259						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		V_{dis}	KV	2						
Mounting torque @Recommend torque：5kg·cm		Tor	kg·cm	8						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ15005A	KBJ1501A	KBJ1502A	KBJ1504A	KBJ1506A	KBJ1508A	KBJ1510A
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=7.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5						
			T_j =125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	76						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	KBJ15005A	KBJ1501A	KBJ1502A	KBJ1504A	KBJ1506A	KBJ1508A	KBJ1510A
Thermal Resistance	Between junction and ambient, Without heatsink	RθJ-A	℃/W	20						
	Between junction and case, With heatsink	RθJ-C		1.5						

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

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBJ15005A ~ KBJ1510A	B1	Approximate 4.27	20	1000	2000	Tube

■ Characteristics(Typical)

FIG1:Io-Tc Curve

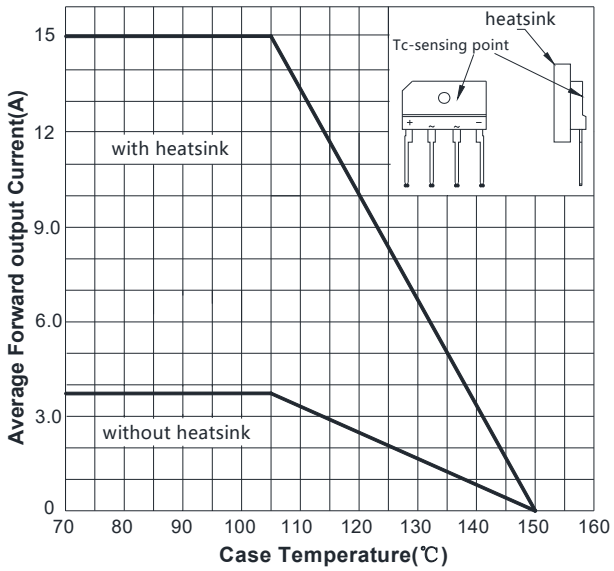


FIG2:Surge Forward Current Capability

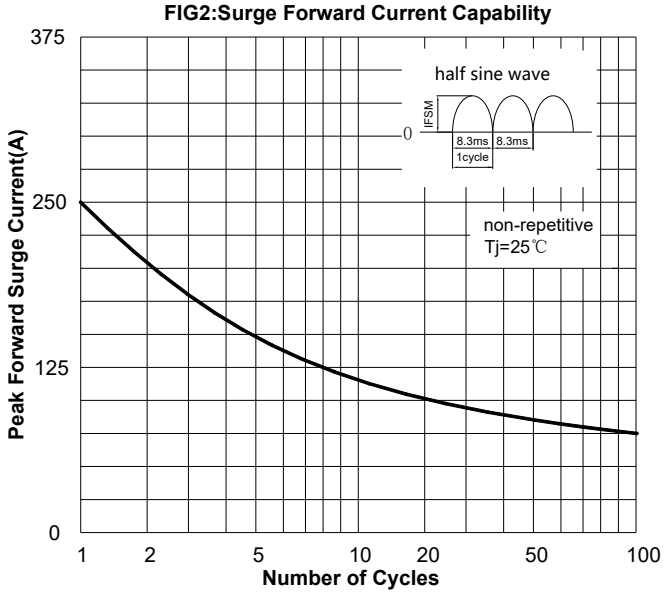


FIG3: Typical Forward Voltage

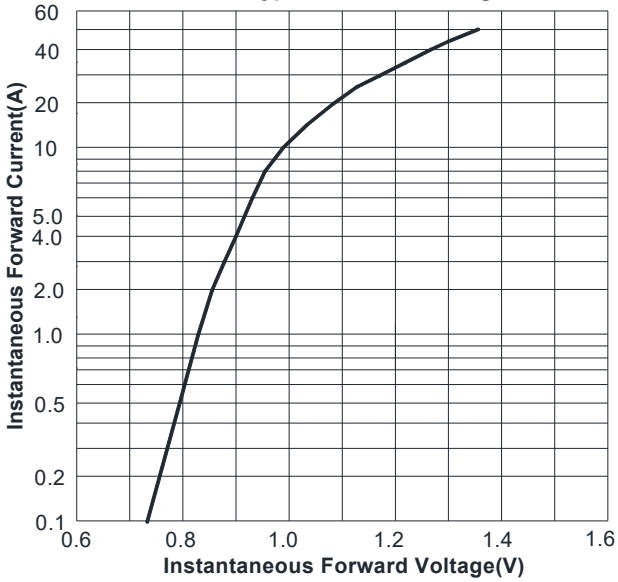
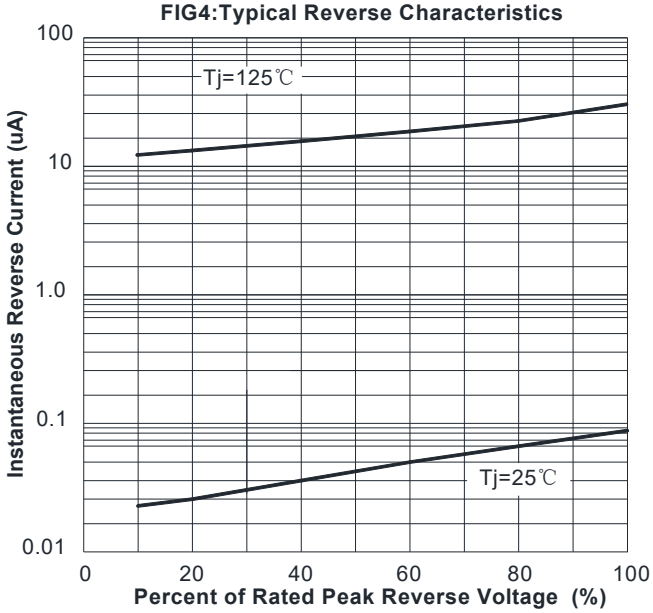
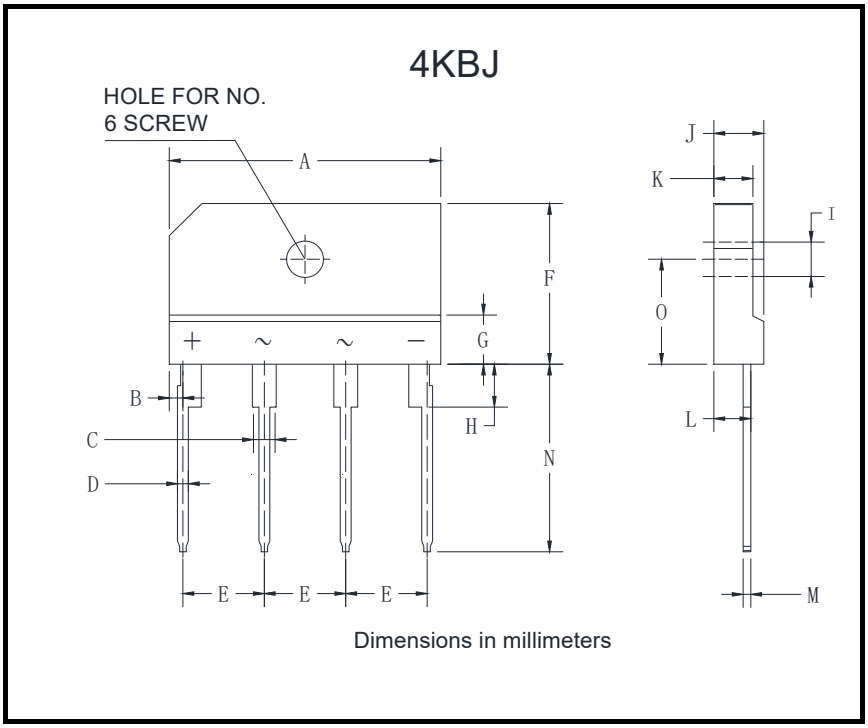


FIG4:Typical Reverse Characteristics



■ 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

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.