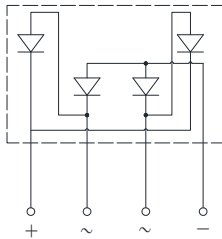
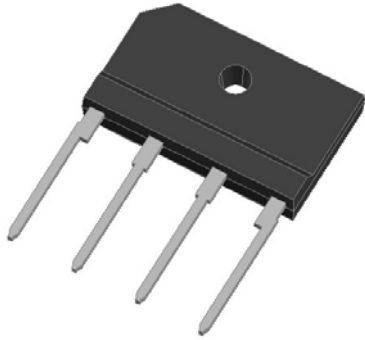


## Bridge Rectifiers



### 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBJ1512	
Device marking code			KBJ1512	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	1200	
Maximum RMS Voltage	V <sub>RMS</sub>	V	840	
Maximum DC blocking Voltage	V <sub>DC</sub>	V	1200	
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =100°C	I <sub>o</sub>	A	15
	Without heatsink T <sub>a</sub> =25°C			3.3
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	220	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			440	
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	201	
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	T <sub>or</sub>	kg·cm	8	



# KBJ1512

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ1512
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =7.5A	1.1
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	64

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

PARAMETER		SYMBOL	UNIT	KBJ1512
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	20.0
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		1.5

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
KBJ1512	B1	Approximate 4.27	20	1000	2000	Tube

## ■ Characteristics (Typical)

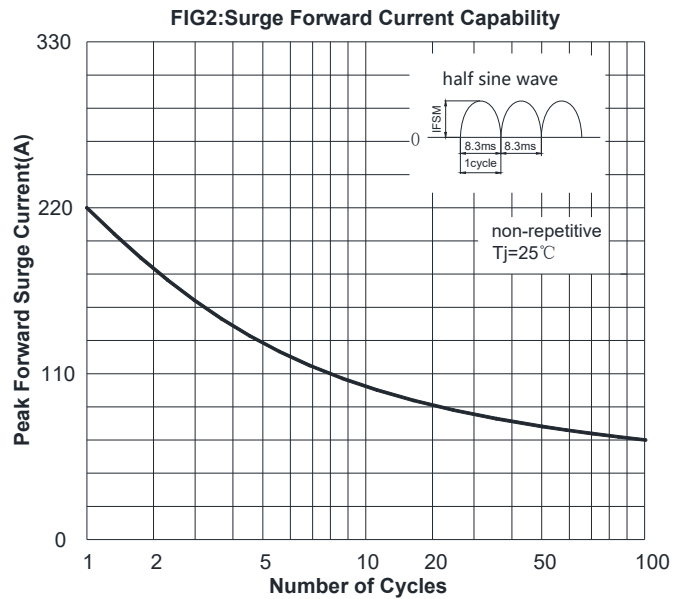
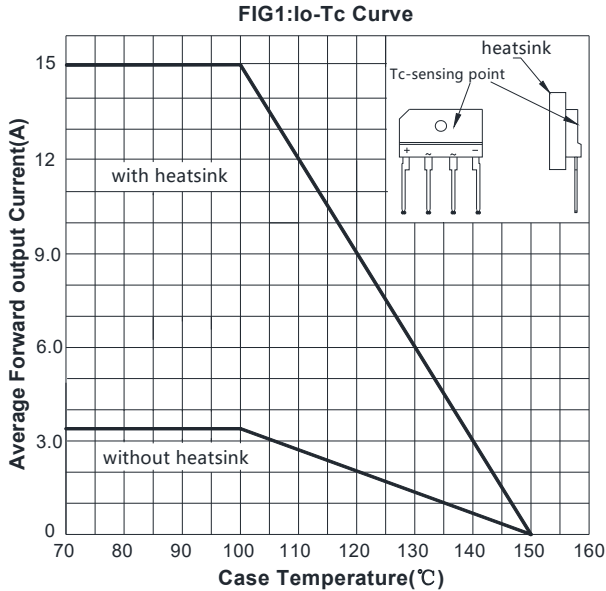


FIG3: Typical Forward Voltage

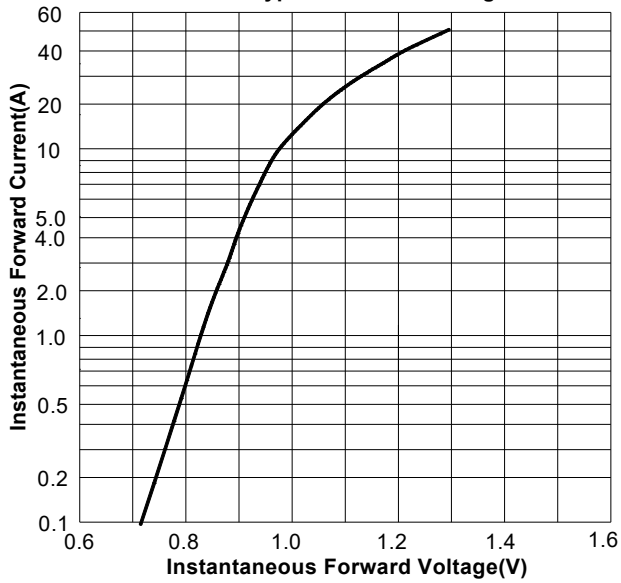
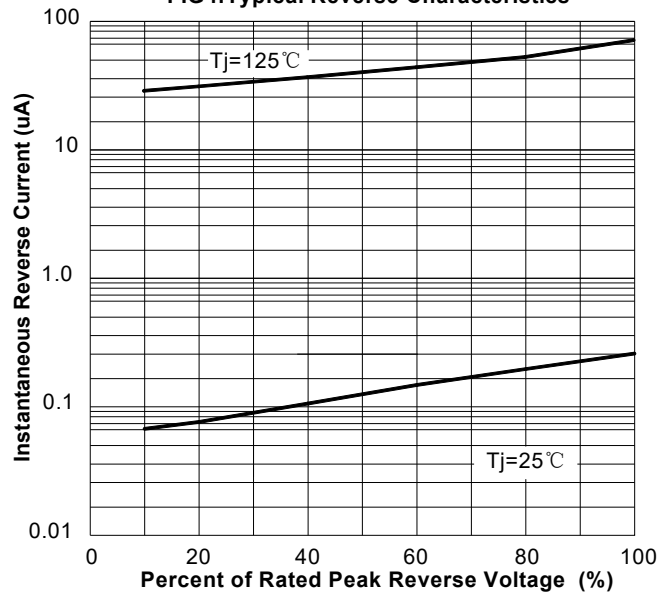
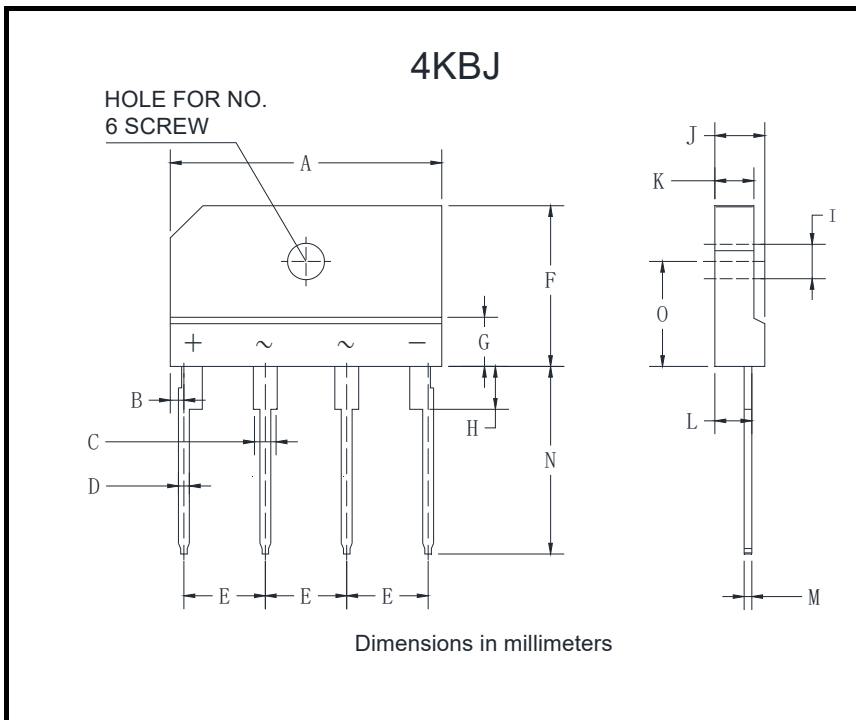


FIG4: Typical Reverse Characteristics



## 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



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