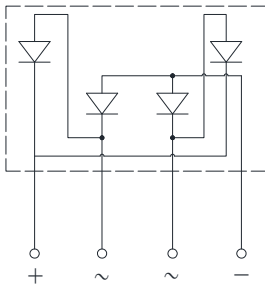
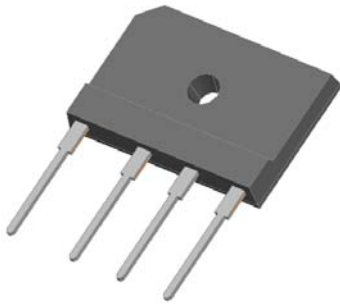


## Bridge Rectifiers



### 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:** 6KBJ  
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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
Device marking code			GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
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 Tc =100°C	IO	A	50.0					
	Without heatsink Ta =25°C			5.2					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	500						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			1000						
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I²t	A²s	1037.5						
Storage temperature	Tstg	°C	-55 ~ +150						
Junction temperature	Tj	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	Vdis	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						



# GBJ50005 THRU GBJ5010

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>F</sub> M=25A				1.0			
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				200			
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C				190			

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

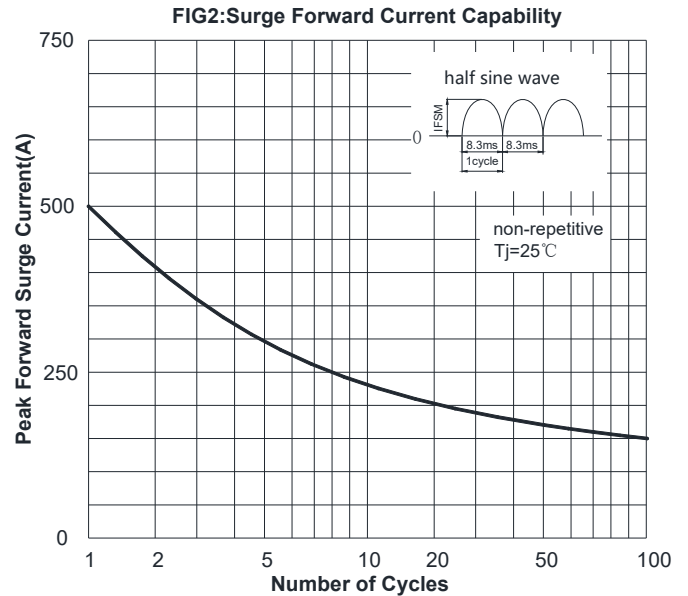
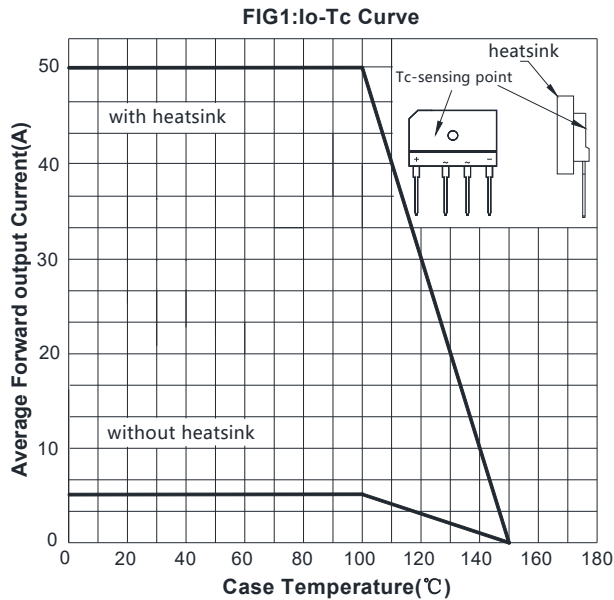
PARAMETER		SYMBOL	UNIT	GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W				18			
	Between junction and case, With heatsink	R <sub>θJ-C</sub>					0.8			

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBJ50005 - GBJ5010	B1	Approximate 6.5	15	750	1500	TUBE

## ■ Characteristics (Typical)





# GBJ50005 THRU GBJ5010

FIG3: Typical Forward Voltage

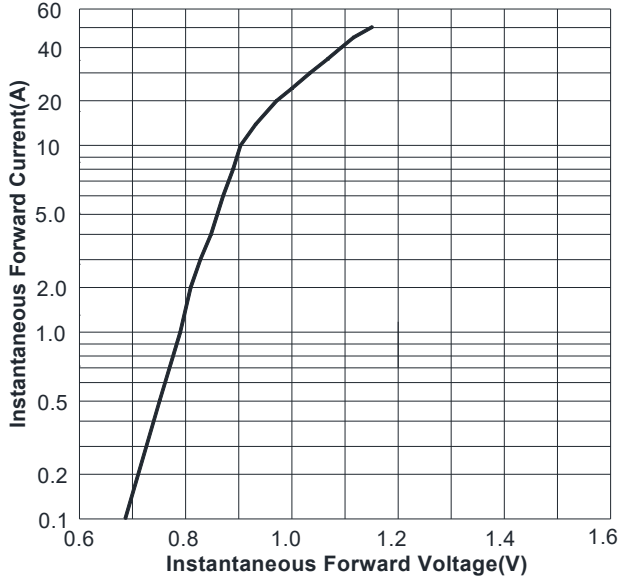
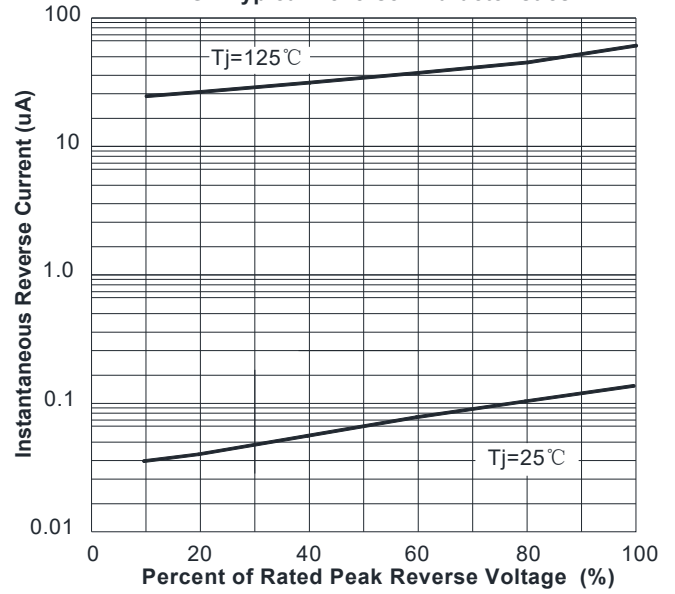
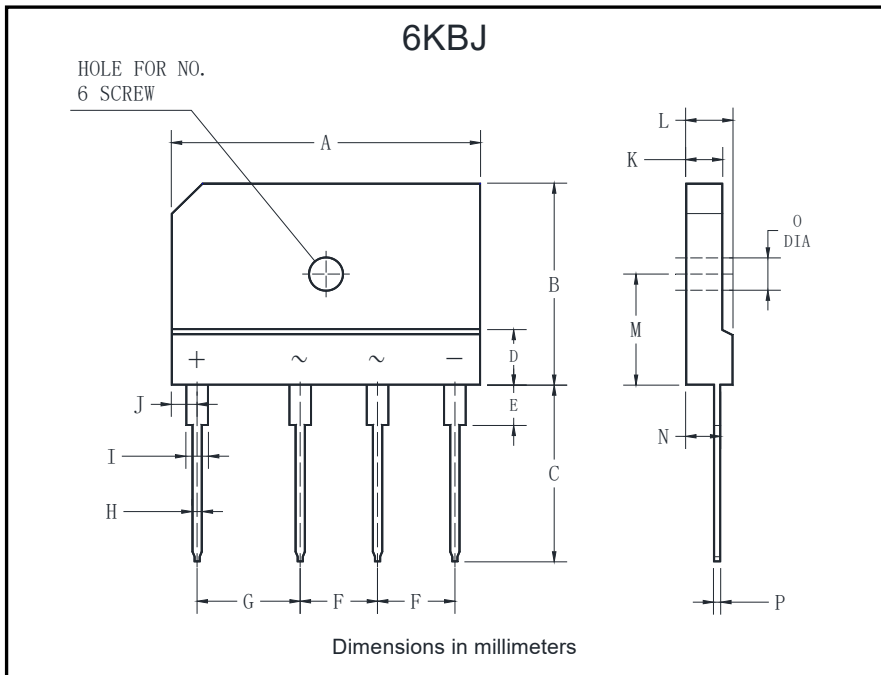


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



6KBJ		
Dim	Min	Max
A	29.7	30.3
B	19.7	20.3
C	17.0	18.0
D	4.8	5.8
E	3.8	4.2
F	7.3	7.7
G	9.8	10.2
H	0.9	1.1
I	2.0	2.4
J	2.3	2.7
K	3.4	3.8
L	4.4	4.8
M	10.8	11.2
N	3.1	3.7
O	3.1	3.4
P	0.6	0.8



## GBJ50005 THRU GBJ5010

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