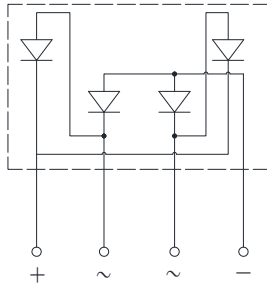
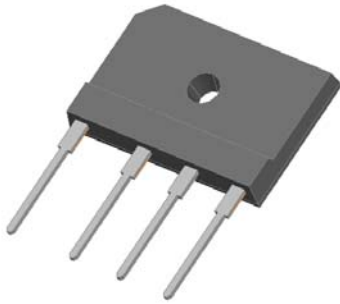


Bridge Rectifiers



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

PARAMETER		SYMBOL	UNIT	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
Device marking code				GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
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 $T_c = 125^\circ\text{C}$	IO	A	6.0						
	Without heatsink $T_a = 25^\circ\text{C}$			3.5						
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 ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$, Rating of per diode		I ² t	A ² s	127						
Storage temperature		T _{stg}	°C	-55 ~ +150						
Junction temperature		T _j	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		V _{dis}	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm		Tor	kg·cm	8						



GBJ6005 THRU GBJ610

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F M=3.0A				1.0			
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C				5			
			T _j =125°C				100			
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C				53			

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

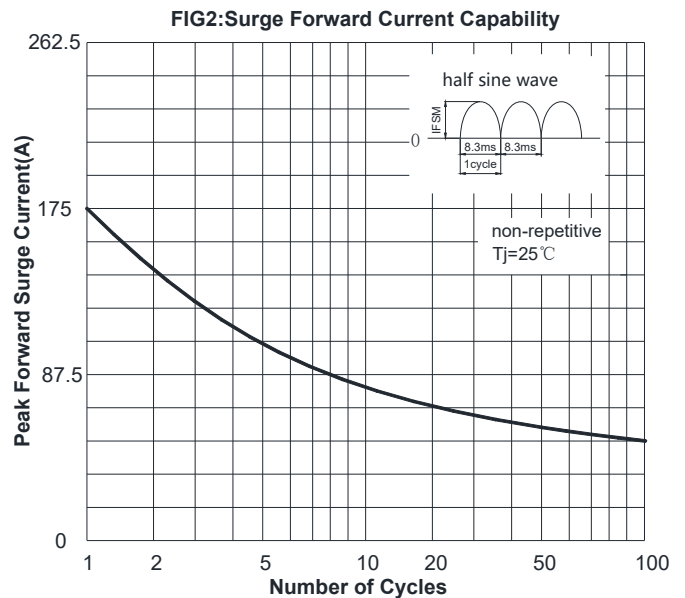
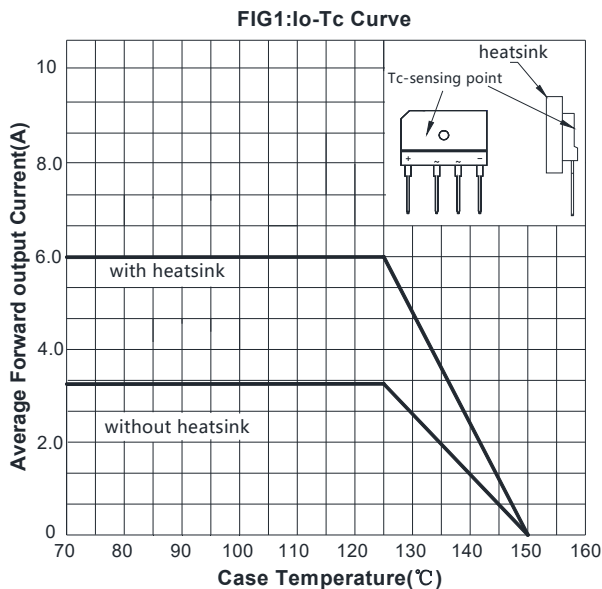
PARAMETER		SYMBOL	UNIT	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W					18		
	Between junction and case, With heatsink	R _{θJ-C}						2		

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
GBJ6005 ~ GBJ610	B1	Approximate 6.5	15	750	1500	TUBE

■ Characteristics (Typical)





GBJ6005 THRU GBJ610

FIG3: Typical Forward Voltage

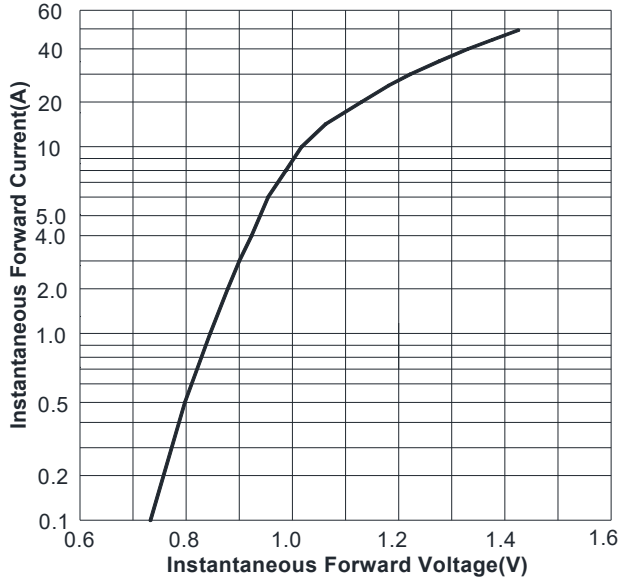
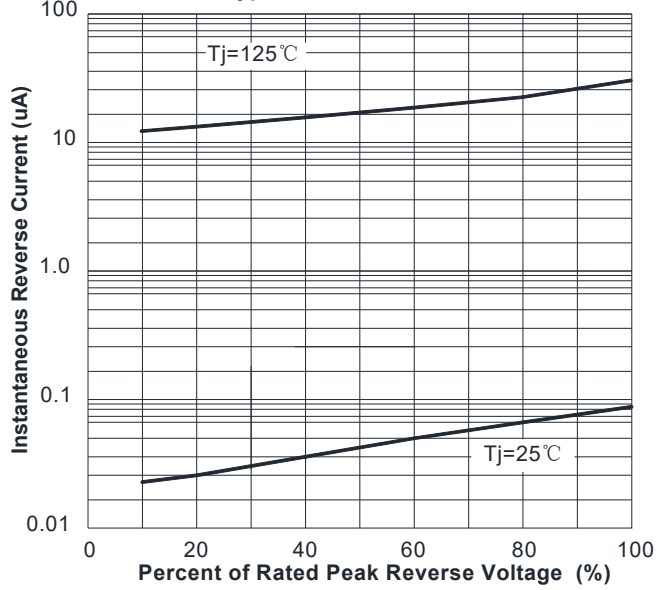
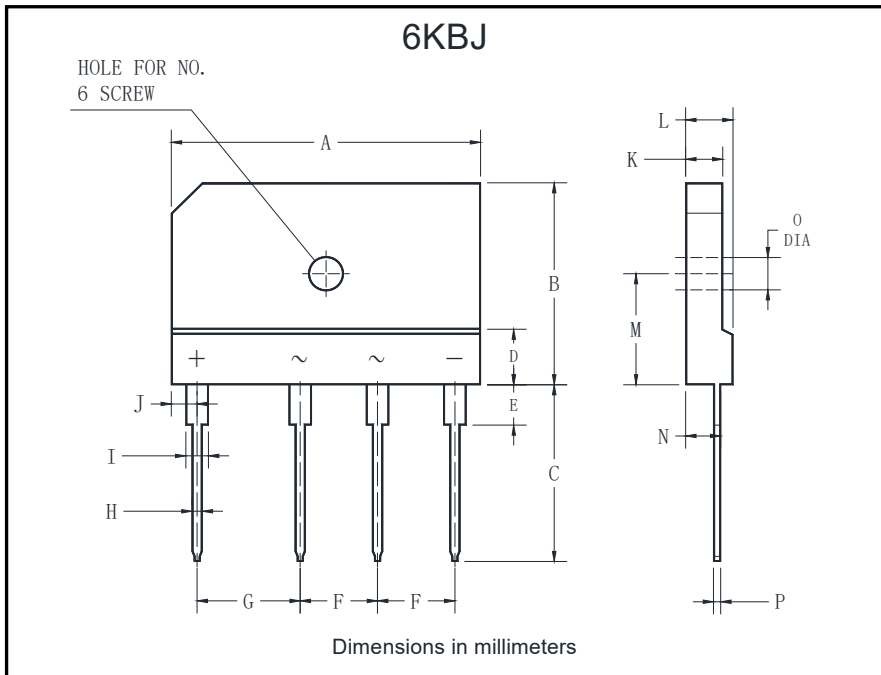


FIG4: Typical Reverse Characteristics



■ 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



GBJ6005 THRU GBJ610

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