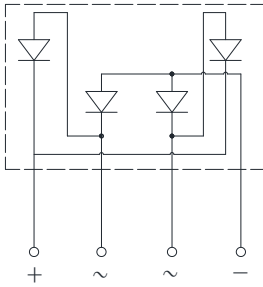
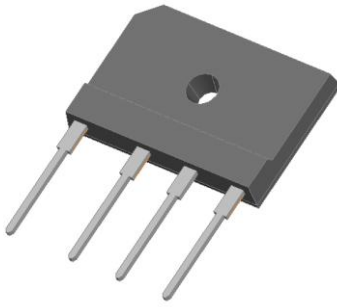


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- 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
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink $T_c=87^\circ\text{C}$	IO	A	6					
	Without heatsink $T_a=25^\circ\text{C}$			3.5					
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	175						
Current squared time @1ms≤t≤8.3ms $T_j=25^\circ\text{C}$ , Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	127						
Storage temperature	Tstg	°C	-55 ~+150						
Junction temperature	Tj	°C	-55 ~+150						
Dielectric strength @ terminals to case, AC 1 minute	Vdis	KV	2						
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>F</sub> M=3A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	5						



# GBJ6005 THRU GBJ610

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

PARAMETER		SYMBOL	UNIT	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^\circ\text{C/W}$	26						
	Between junction and case, With heatsink	$R_{\theta J-C}$		3.4						

## ■ 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 THRU GBJ610	B1	Approximate 6.5	15	750	1500	TUBE
GBJ6005 THRU GBJ610	A1	Approximate 6.5	250	250	2000	BOX

## ■ Characteristics (Typical)

FIG1:  $I_0$ - $T_c$  Curve

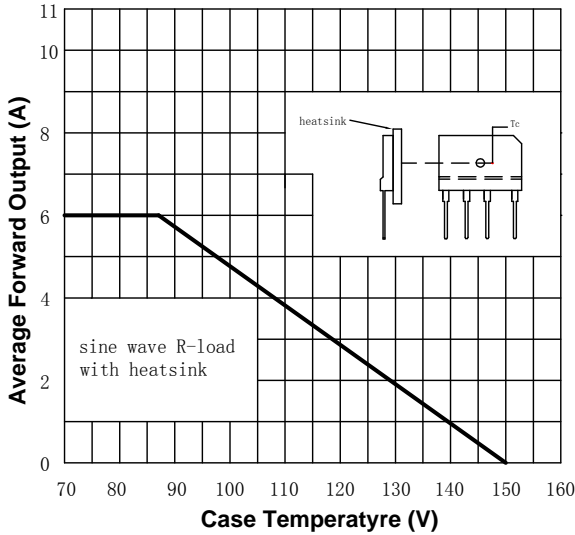


FIG2: Surge Forward Current Capability

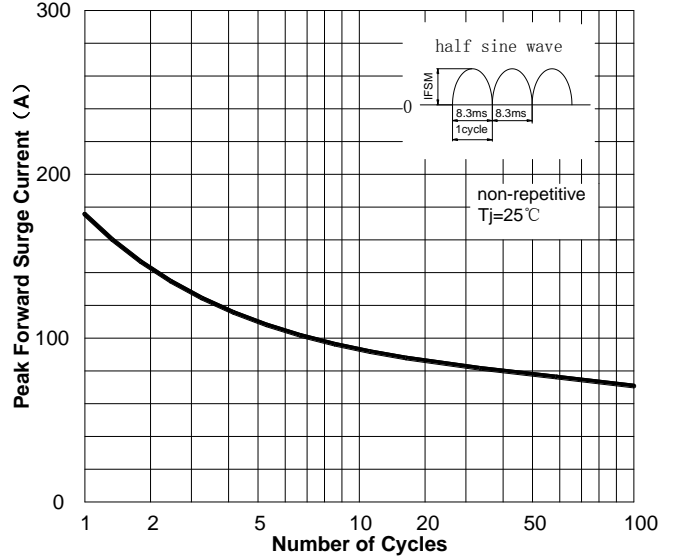


FIG3: Forward Voltage

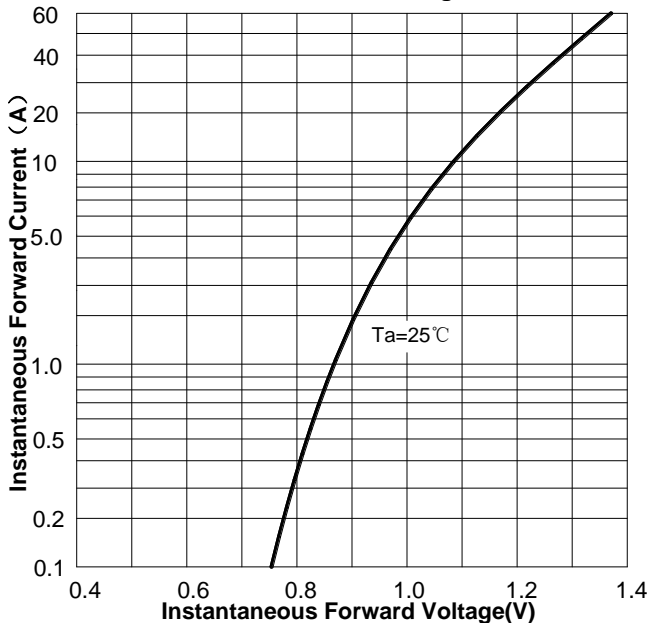
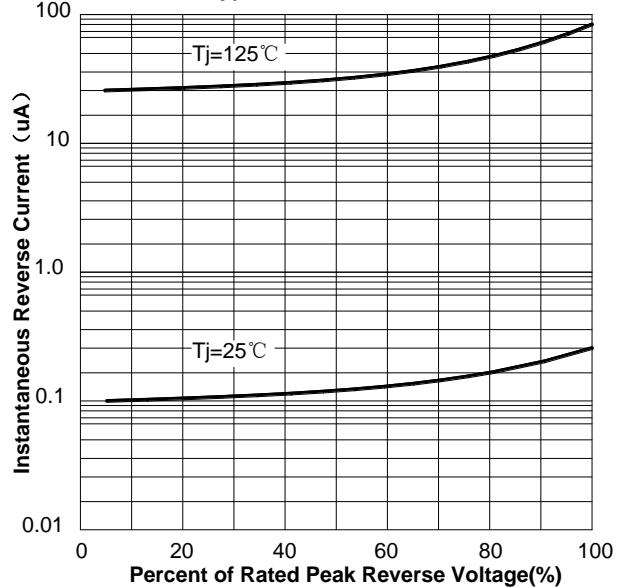


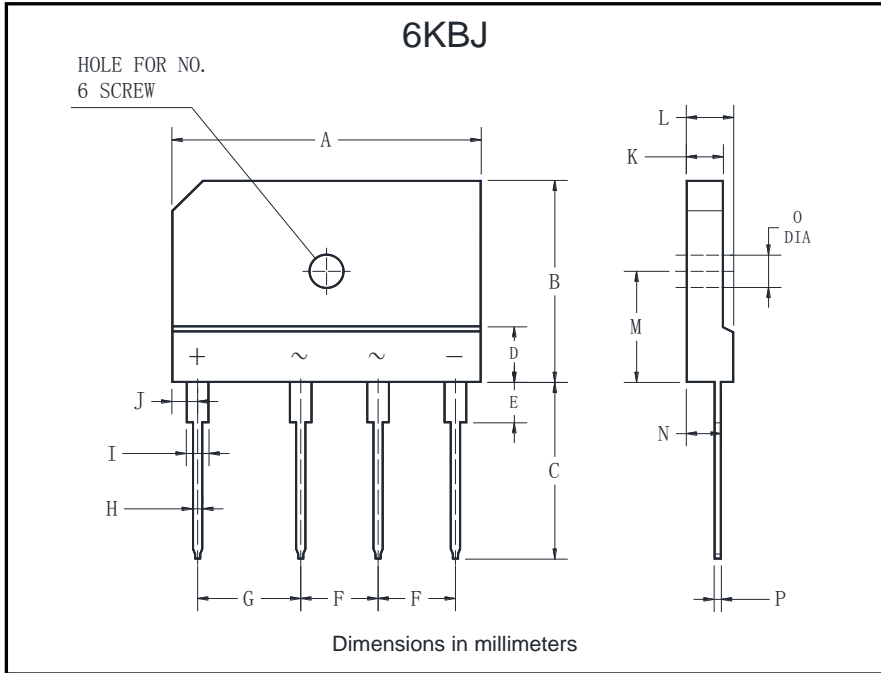
FIG4: Typical Reverse Characteristics





# GBJ6005 THRU GBJ610

## ■ 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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