

## Bridge Rectifiers

### Features

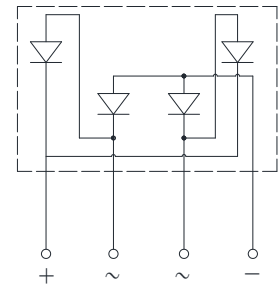
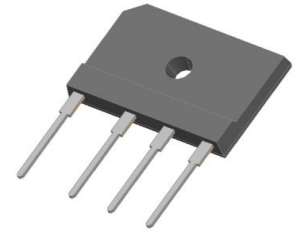
- UL recognition, file #E230084
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### 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	GBJ20005A	GBJ2001A	GBJ2002A	GBJ2004A	GBJ2006A	GBJ2008A	GBJ2010A
Device marking code			GBJ20005A	GBJ2001A	GBJ2002A	GBJ2004A	GBJ2006A	GBJ2008A	GBJ2010A
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load,	IO	A	With heatsink $T_c=87^\circ\text{C}$						
			Without heatsink $T_a=25^\circ\text{C}$						
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	320						
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	$\text{A}^2\text{s}$	424						
Storage temperature	$T_{\text{stg}}$	$^\circ\text{C}$	-55 ~+150						
Junction temperature	$T_j$	$^\circ\text{C}$	-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	GBJ20005A	GBJ2001A	GBJ2002A	GBJ2004A	GBJ2006A	GBJ2008A	GBJ2010A
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=10.0A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	$\mu\text{A}$	V <sub>RM</sub> =V <sub>RRM</sub>	5						

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

PARAMETER		SYMBOL	UNIT	GBJ20005A	GBJ2001A	GBJ2002A	GBJ2004A	GBJ2006A	GBJ2008A	GBJ2010A
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^\circ\text{C/W}$	22.0						
	Between junction and case, With heatsink	$R_{\theta J-C}$		1.0						

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBJ20005A THRU GBJ2010A	B1	Approximate 6.5	15	750	1500	TUBE

■ Characteristics(Typical)

FIG1:  $I_o$ - $T_c$  Curve

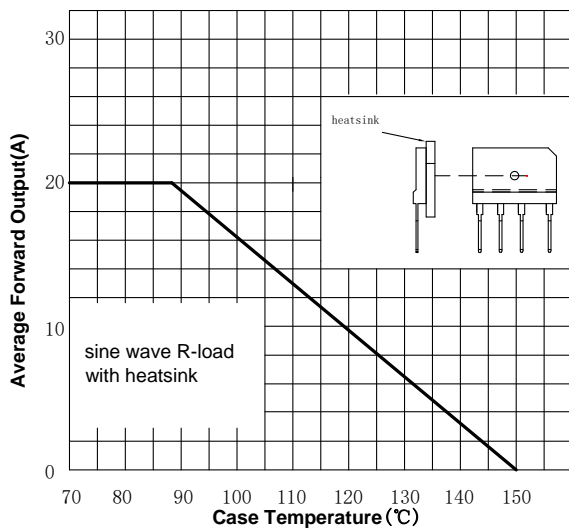


FIG2: Surge Forward Current Capability

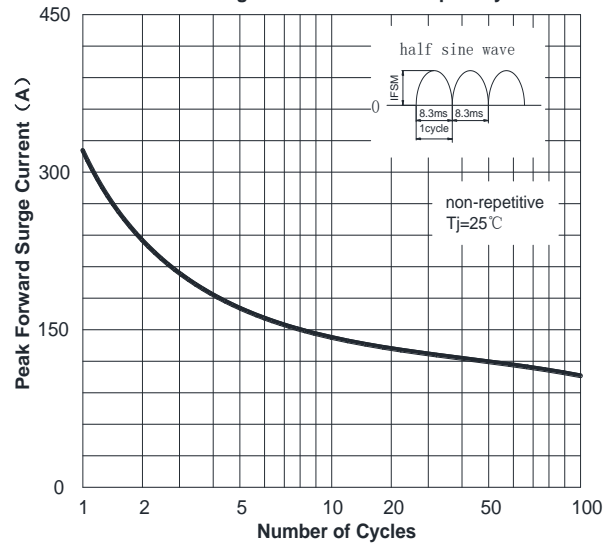


FIG3: Forward Voltage

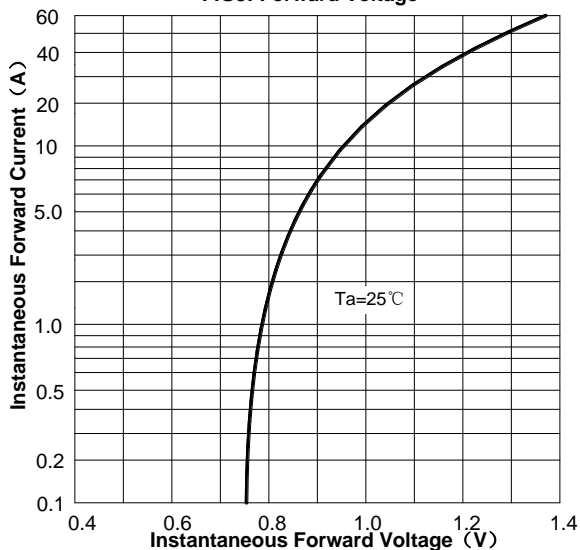
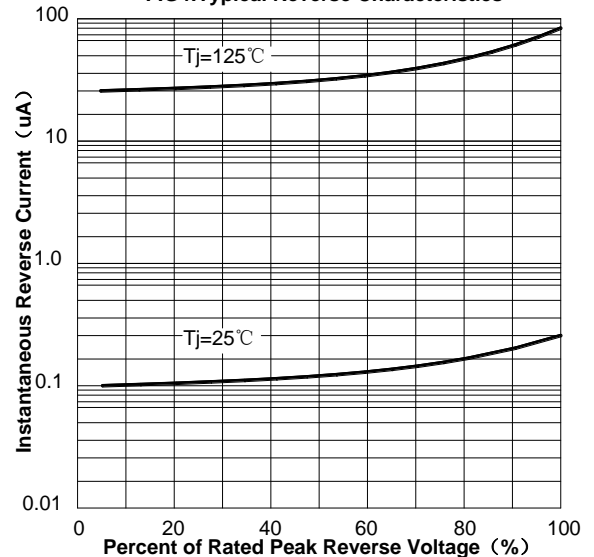
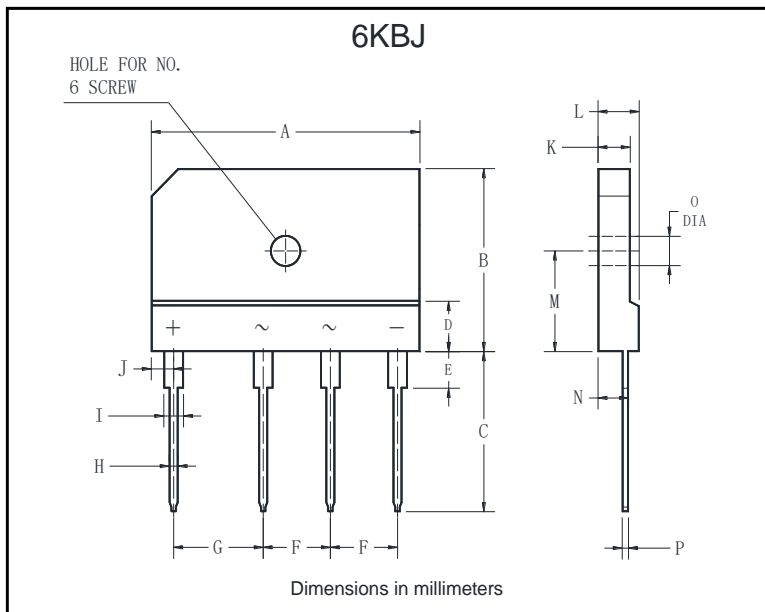


FIG4: Typical Reverse Characteristics



■ 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

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