

Bridge Rectifiers

Features

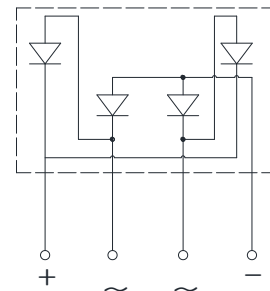
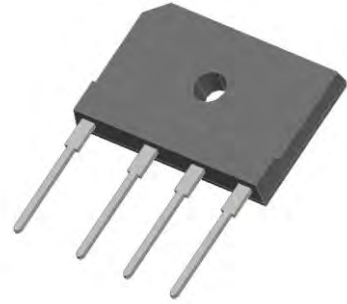
- UL recognition, file #E230084
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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 (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
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load,	With heatsink Tc =87 °C	IO	A	50.0					
	Without heatsink Ta =25 °C			5.2					
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, Tj=25 °C	IFSM	A	450						
Current squared time @1ms≤t≤8.3ms Tj=25 °C, Rating of per diode	I ² t	A ² s	830						
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						

Electrical Characteristics (Ta=25 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=25.0A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	µA	VRM=VRRM	5						



GBJ50005 ~ GBJ5010

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

PARAMETER		SYMBOL	UNIT	GBJ50005	GBJ5001	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	22.0						
	Between junction and case, With heatsink	R _{θJ-C}		0.8						

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)

FIG1: I_o-T_c Curve

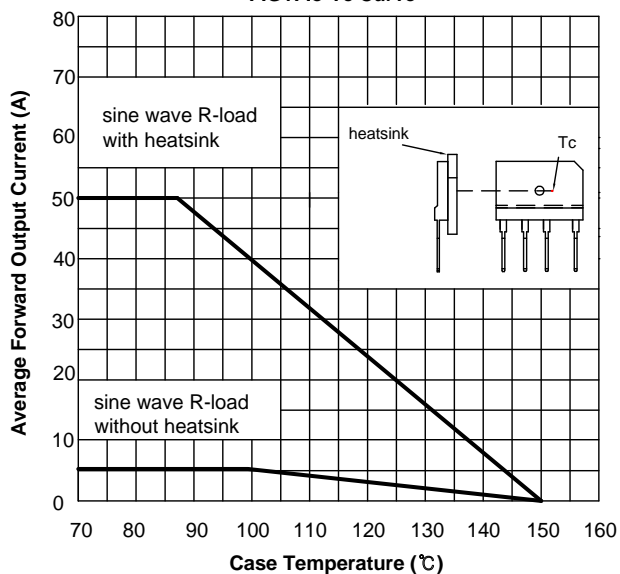


FIG2: Surge Forward Current Capability

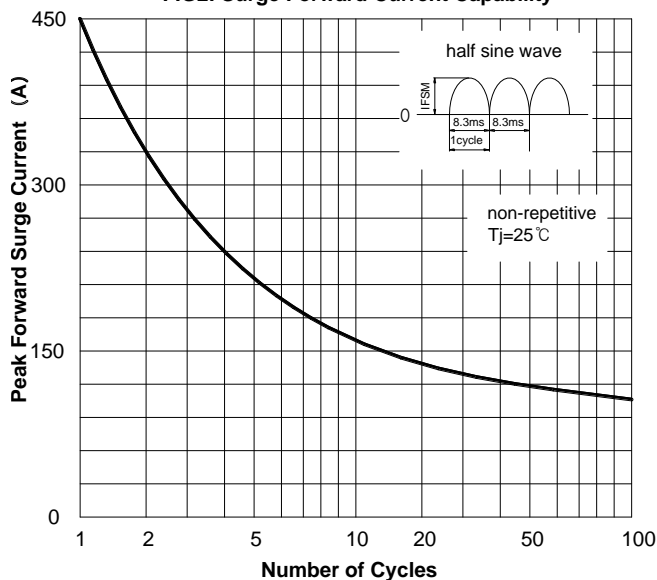


FIG3: Typical Forward Characteristics

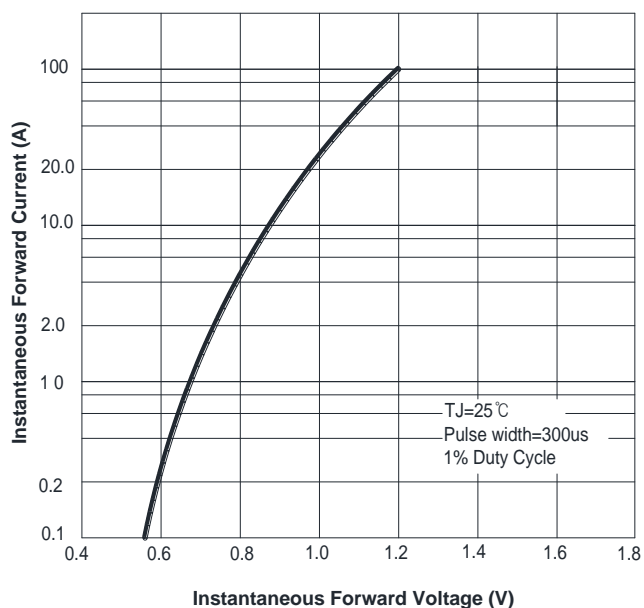
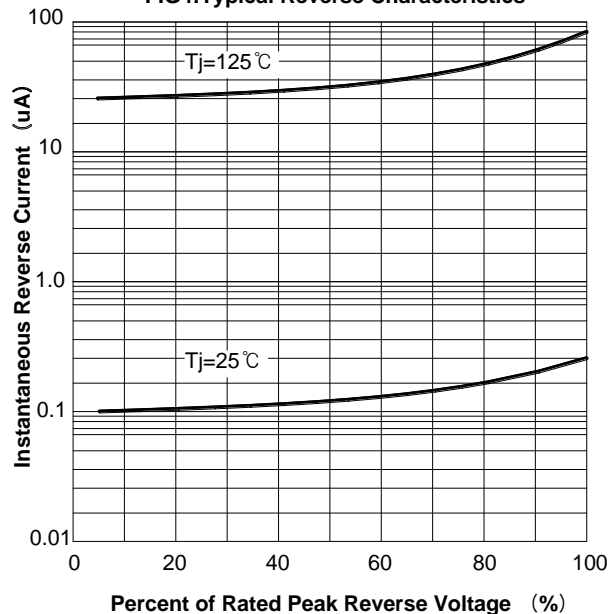
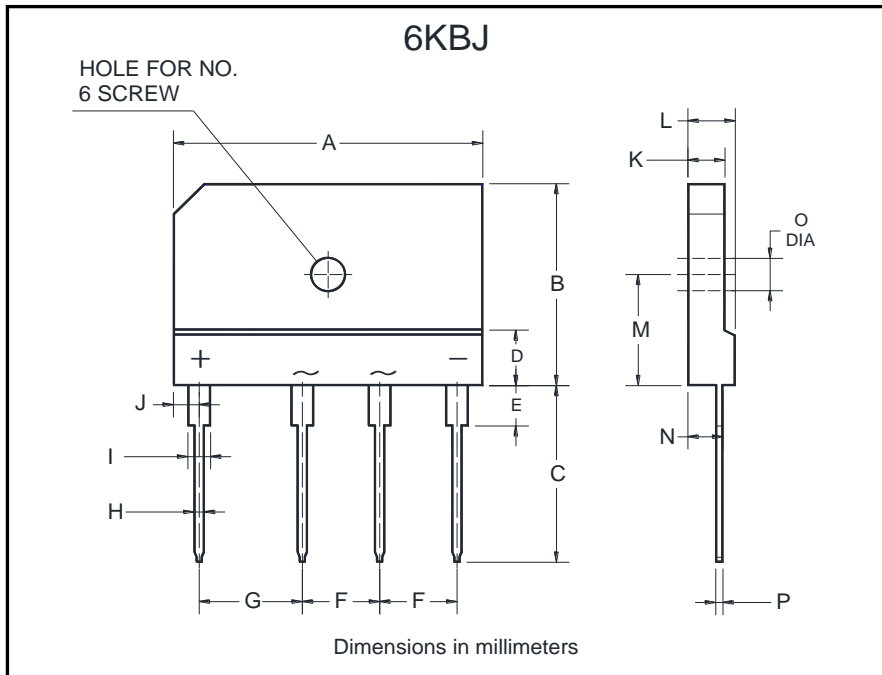


FIG4: Typical Reverse Characteristics



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