

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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBJ8005	GBJ801	GBJ802	GBJ804	GBJ806	GBJ808	GBJ810
Device marking code			GBJ8005	GBJ801	GBJ802	GBJ804	GBJ806	GBJ808	GBJ810
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	I _O	A	With heatsink T _C =87°C						
			Without heatsink T _a =25°C						
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T _J =25°C	IFSM	A	175						
Current squared time @1ms≤t≤8.3ms T _J =25°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						
Mounting torque @recommend torque : 5kg·cm	Tor	kg·cm	8						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ8005	GBJ801	GBJ802	GBJ804	GBJ806	GBJ808	GBJ810
Maximum instantaneous forward voltage drop per diode	V _F	V	IFM=4A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	VRM=VRRM	5						



GBJ08005 ~ GBJ810

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

PARAMETER		SYMBOL	UNIT	GBJ8005	GBJ801	GBJ802	GBJ804	GBJ806	GBJ808	GBJ810
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJA}	°C/W	25						
	Between junction and case, With heatsink	R _{θJC}		2.3						

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBJ8005 THRU GBJ810	B1	Approximate 6.5	15	750	1500	TUBE
GBJ8005 THRU GBJ810	A1	Approximate 6.5	250	250	2000	BOX

Characteristics (Typical)

FIG1: I_o-T_c Curve

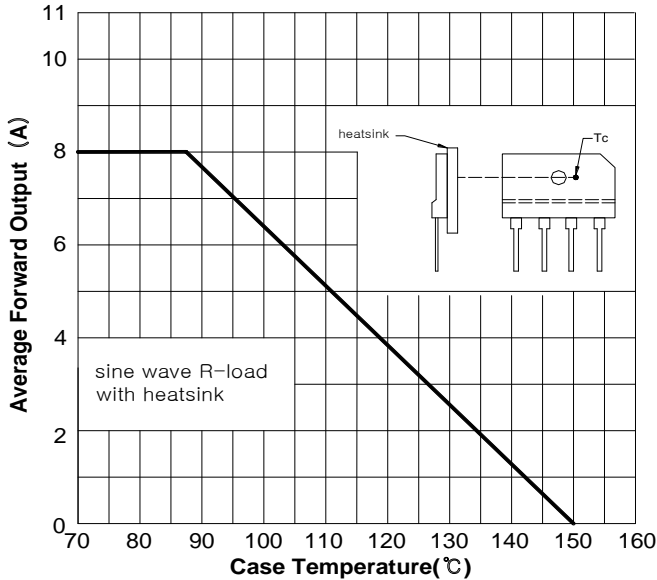


FIG2: Surge Forward Current Capability

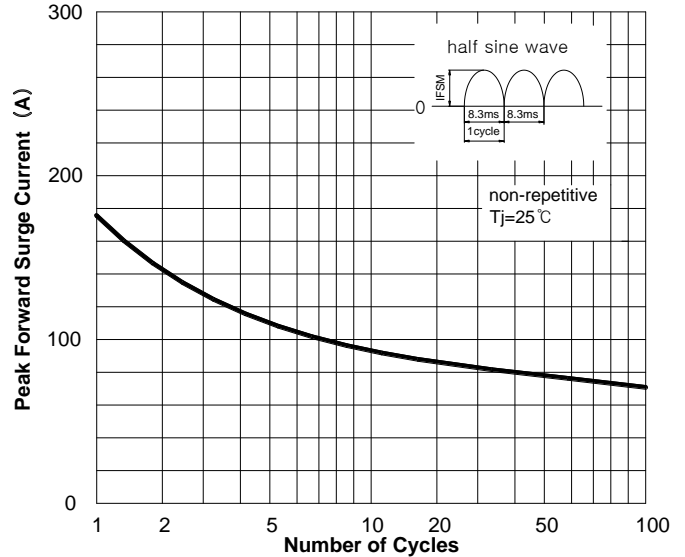


FIG3: Forward Voltage

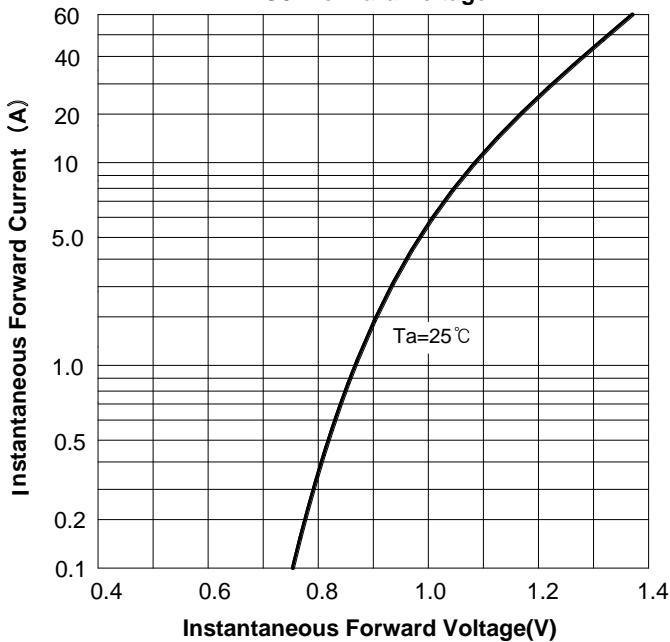
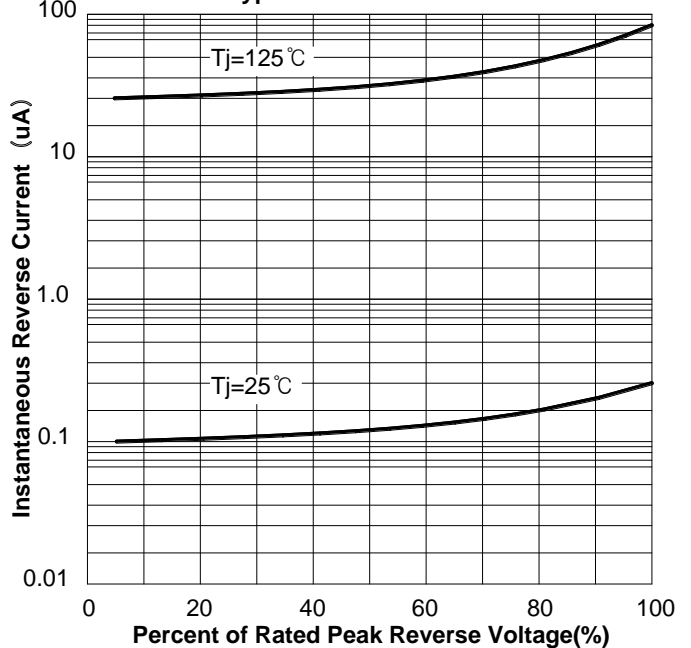
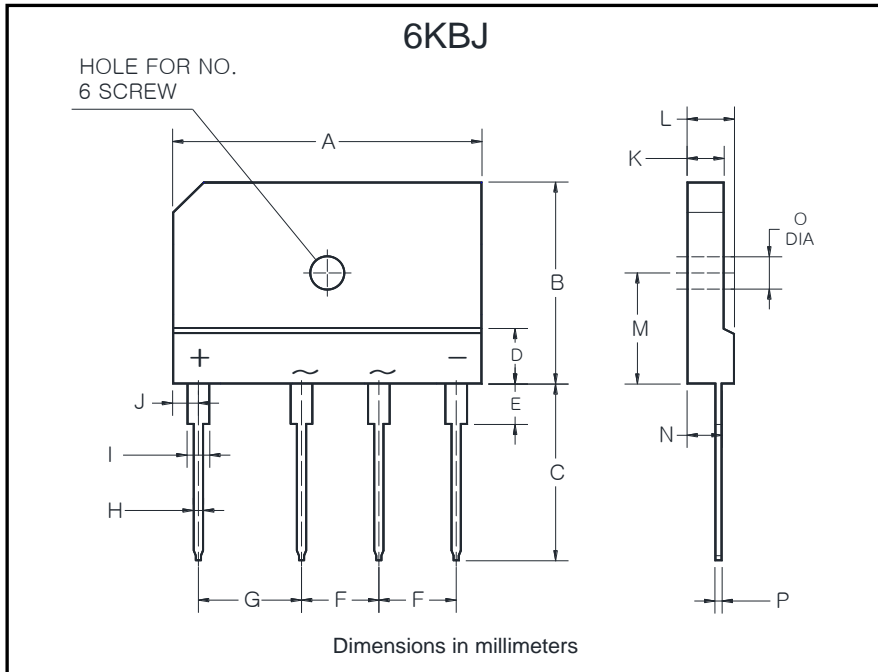


FIG4: Typical Reverse Characteristics



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