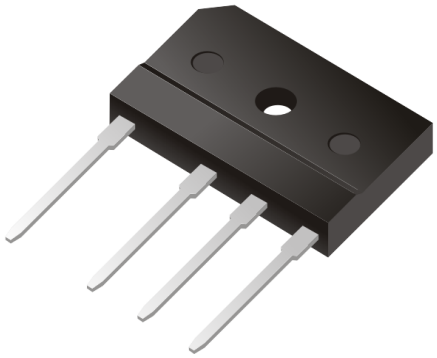
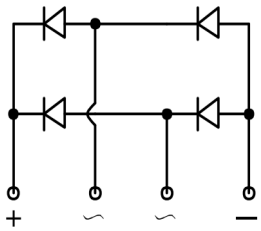
GBJ5010
Bridge Rectifiers

GBJ





Reverse Voltage - 1000 V

Forward Current - 50 A

Features

- Glass passivated chip
- Thin single in-line package
- High surge current capability
- High reliability
- Low forward voltage drop

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**: GBJ
  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℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GBJ5010
Repetitive peak reverse voltage		V_{RRM}	V	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =90 ℃	I_O	A	50
	Without heatsink Ta =25℃			5.2
Surge(non-repetitive)forward current @60HZ half sine wave, 1 cycle, Tj=25℃		I_{FSM}	A	450
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2S	840
Storage temperature		Tstg	℃	-55 ~+150
Junction temperature		Tj	℃	-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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		GBJ5010
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=25.0A		1.10
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	V_{RRM}	25 ℃	5.0
				125 ℃	300

Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GBJ5010
Thermal Resistance	Between junction and ambient, Without heatsink	RθJ-A	℃/W	22
	Between junction and case, With heatsink	RθJ-C		0.8

Fig.1 Typical Forward Current Derating Curve

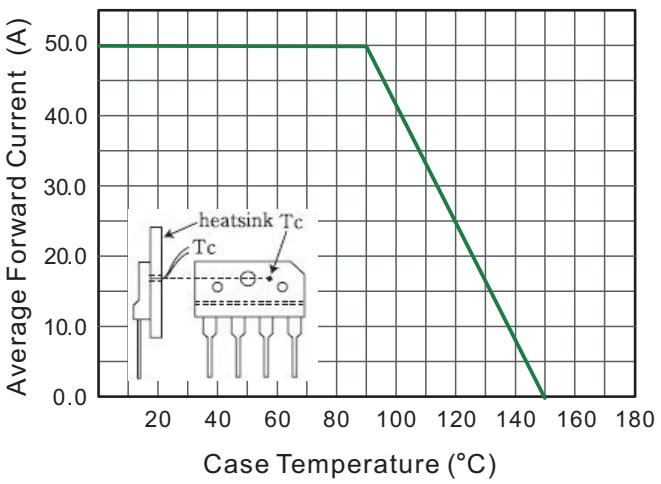


Fig.2 Typical Reverse Characteristics

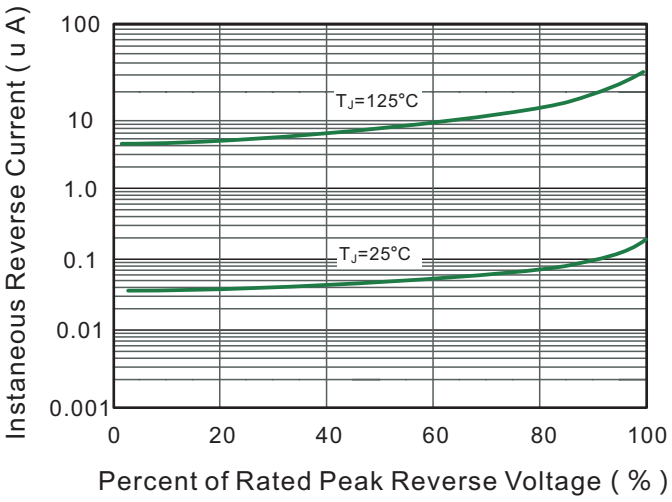


Fig.3 Typical Forward Characteristics

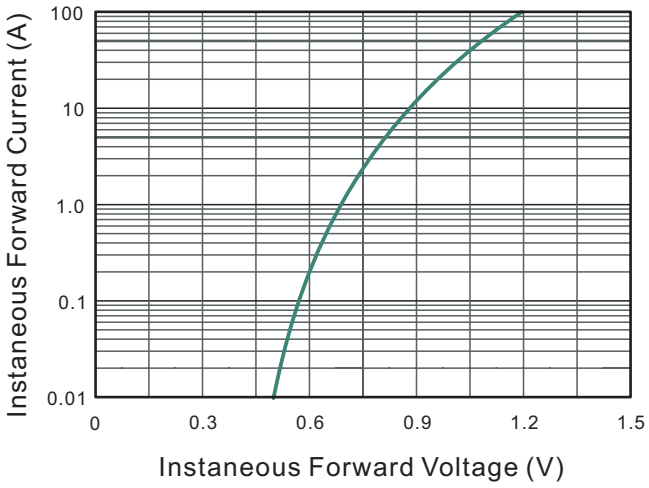
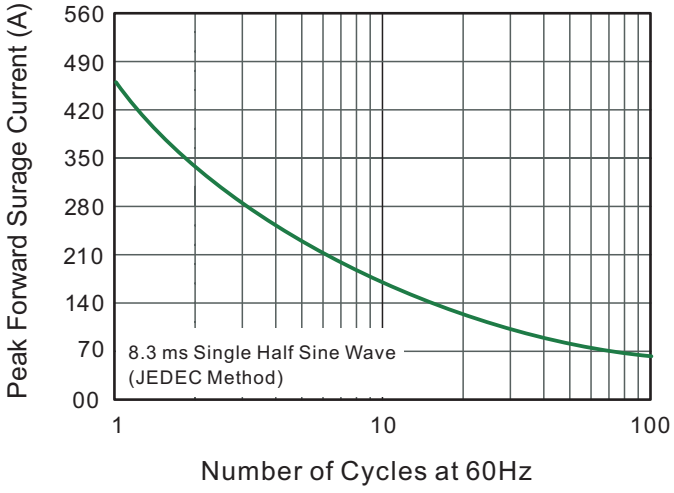


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline Dimensions inches and (milimeters)