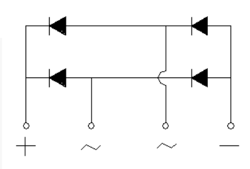
GBJ6J thru GBJ6M

Single Phase Glass Passivated Silicon Bridge Rectifier

V_{RRM} = 600 V - 1000 V
I_O = 6 A

Features

- Epoxy Resin material compliant with 94V-0 standards of UL Material Flammability Provisions
- Compliant with RoHS Provisions
- Single in-line DIP package, compact size
- Low forward voltage, high forward current
- High surge current capability
- Types from 600 V to 1000 V V_{RRM}
- Small size, high heat-conducting performance
- Thermal welding performance: 260 °C/10 s
- Weight: 7.25 g (0.25 Oz)
- Not ESD Sensitive



GBJ Package

Maximum ratings at T_A = 25 °C (ambient temperature), unless otherwise specified

Parameter	Symbol	Conditions	GBJ6J	GBJ6K	GBJ6M	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
DC blocking voltage	V_{DC}		600	800	1000	V
Operating temperature	T_j		-50 to 150	-50 to 150	-50 to 150	°C
Storage temperature	T_{stg}		-50 to 150	-50 to 150	-50 to 150	°C

Electrical characteristics at T_A = 25 °C, unless otherwise specified

Resistive load, single phase, half sine wave, 60 Hz.
For capacitive load derate current by 20%.

Parameter	Symbol	Conditions	GBJ6J	GBJ6K	GBJ6M	Unit
Maximum average forward rectified current	I_O	T_C = 100 °C T_A = 25 °C	6 (1) 2.7 (2)	6 (1) 2.7 (2)	6 (1) 2.7 (2)	A
Maximum forward surge current	I_{FSM}	8.3 ms pulse width, single pulse sine-wave, rated load, T_j = 25 °C	150	150	150	A
Maximum forward voltage	V_F	I_F = 3 A	1.05	1.05	1.05	V
Max. reverse current leakage at rated DC blocking voltage	I_R	T_A = 25 °C T_A = 125 °C	5 500	5 500	5 500	μA
Insulation strengthg (Lead wire to case)	V_{dis}	AC Voltage: 1 minute, current leakage < 1 mA	2.5	2.5	2.5	kV
Fusing feature	I^2t	1ms ≤ t < 10ms, T_j=25 °C	80	80	80	A^2s
Thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$	without heatsink with stated size heatsink	26 (2) 3.4 (1)	26 (2) 3.4 (1)	26 (2) 3.4 (1)	°C/W
Mounting torgue	TOR		1.0 (0.8 Nm is recomended)			Nm

Remarks: (1) Install on PCB with stated size heat sink. In order to reach excellent heat dissipation performance, please coat thermal conductive sillica gel in moderation, use M3 screw to screw up. Recommended heatsink size: 8.2*8.2*3.0 cm.
(2) Install on PCB without heatsink.

Fig.1: Current Derating Curve

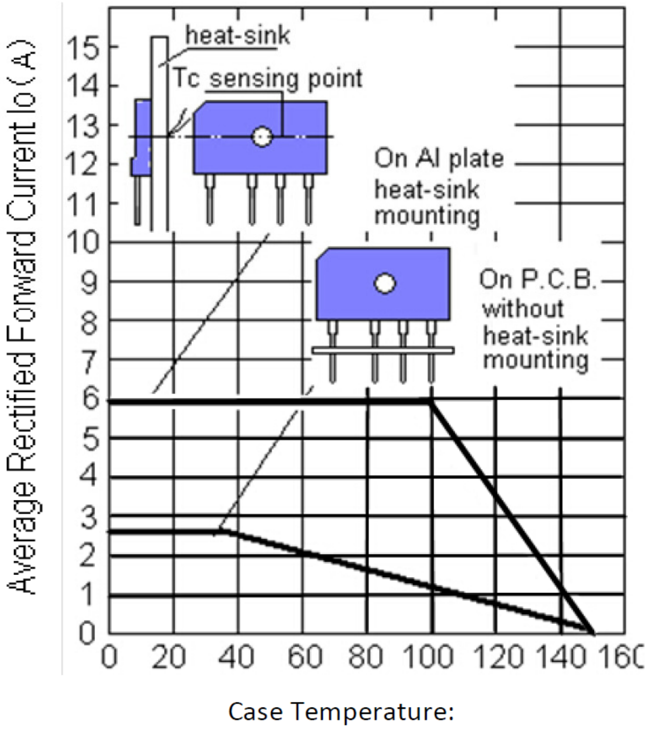


Fig.2: Typical Reverse Characteristics

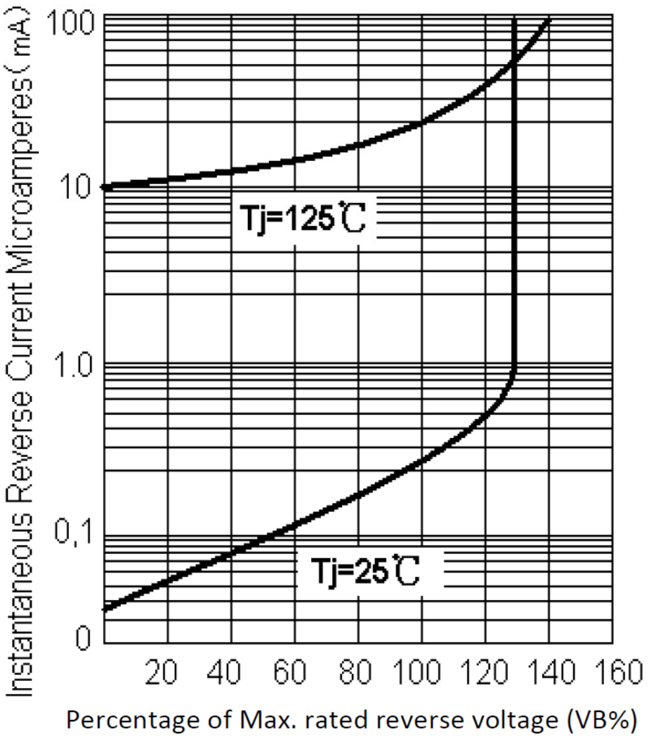


Fig.3: Max. Surge Current

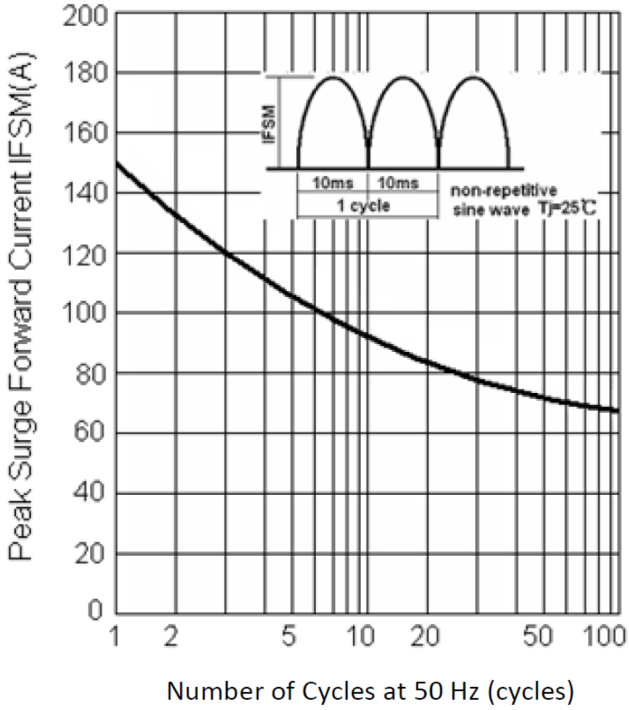
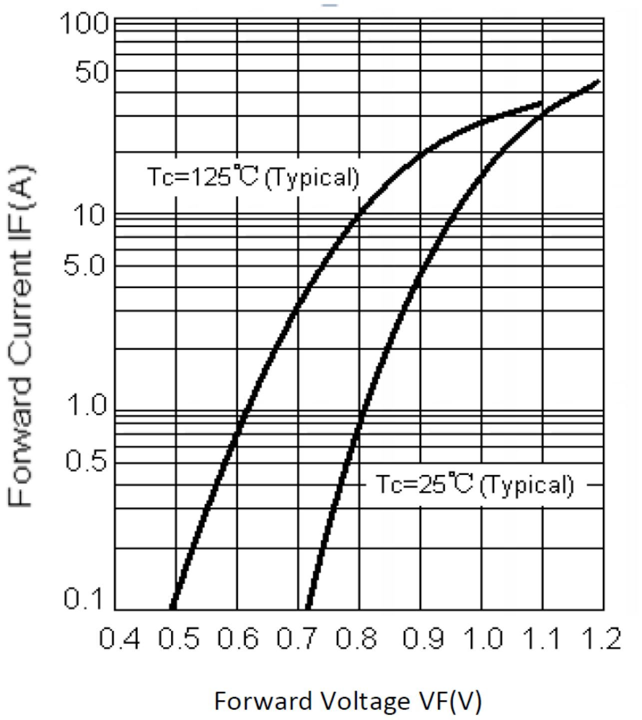
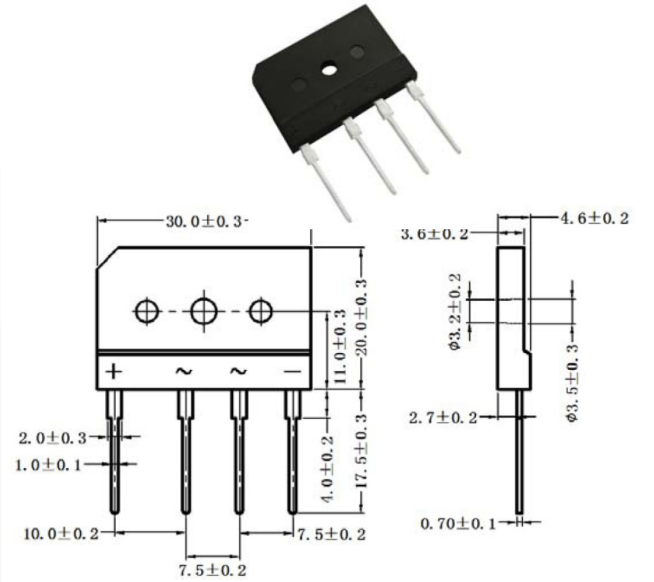


Fig.4: Rated Forward Features



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Dimensions in millimeters