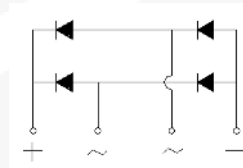


## Single Phase Glass Passivated Silicon Bridge Rectifier

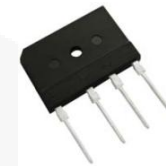
$V_{RRM} = 600\text{ V} - 1000\text{ V}$   
 $I_O = 35\text{ A}$

### 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 $T_A = 25\text{ °C}$ (ambient temperature), unless otherwise specified

Parameter	Symbol	Conditions	GBJ35J	GBJ35K	GBJ35M	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 $T_A = 25\text{ °C}$ , unless otherwise specified

Resistive load, single phase, half sine wave, 60 Hz.

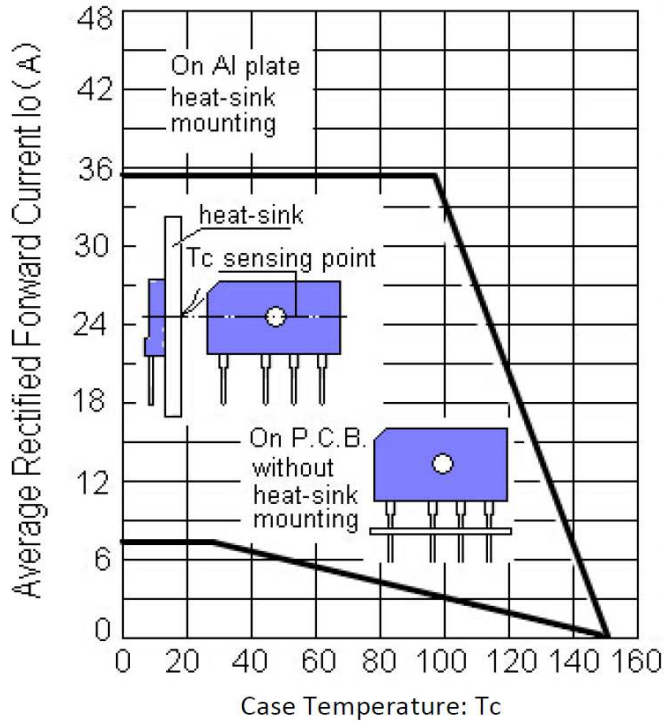
For capacitive load derate current by 20%.

Parameter	Symbol	Conditions	GBJ35J	GBJ35K	GBJ35M	Unit
Maximum average forward rectified current	$I_O$	$T_C = 98\text{ °C}$	35 <sup>(1)</sup>	35 <sup>(1)</sup>	35 <sup>(1)</sup>	A
		$T_A = 25\text{ °C}$	6.8 <sup>(2)</sup>	6.8 <sup>(2)</sup>	6.8 <sup>(2)</sup>	
Maximum forward surge current	$I_{FSM}$	8.3 ms pulse width, single pulse sine-wave, rated load, $T_j = 25\text{ °C}$	500	500	500	A
Maximum forward voltage	$V_F$	$I_F = 17.5\text{ A}$	1.05	1.05	1.05	V
Max. reverse current leakage at rated DC blocking voltage	$I_R$	$T_A = 25\text{ °C}$	5	5	5	$\mu\text{A}$
		$T_A = 125\text{ °C}$	500	500	500	
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	$I^2t$	$1\text{ ms} \leq t < 10\text{ ms}$ , $T_j = 25\text{ °C}$	410	410	410	$\text{A}^2\text{s}$
Thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$	without heatsink	28 <sup>(2)</sup>	28 <sup>(2)</sup>	28 <sup>(2)</sup>	°C/W
		with stated size heatsink	1.0 <sup>(1)</sup>	1.0 <sup>(1)</sup>	1.0 <sup>(1)</sup>	
Mounting torque	TOR		1.0 ( 0.8 Nm is recommended )			Nm

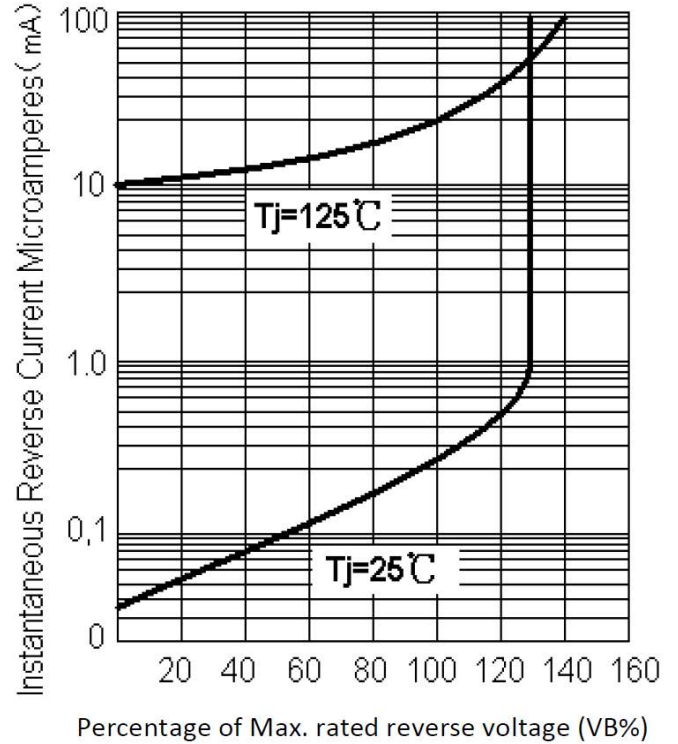
**Remarks:** (1) Install on PCB with stated size heat sink. In order to reach excellent heat dissipation performance, please coat thermal conductive silica gel in moderation, use M3 screw to screw up. Recommended heatsink size: 19.0\*19.0\*7.6 cm.

(2) Install on PCB without heatsink.

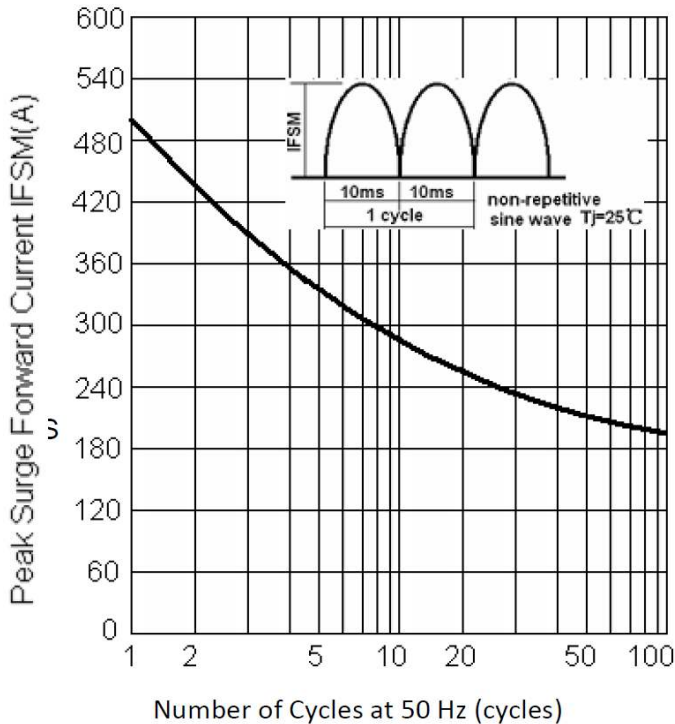
**Fig.1: Current Derating Curve**



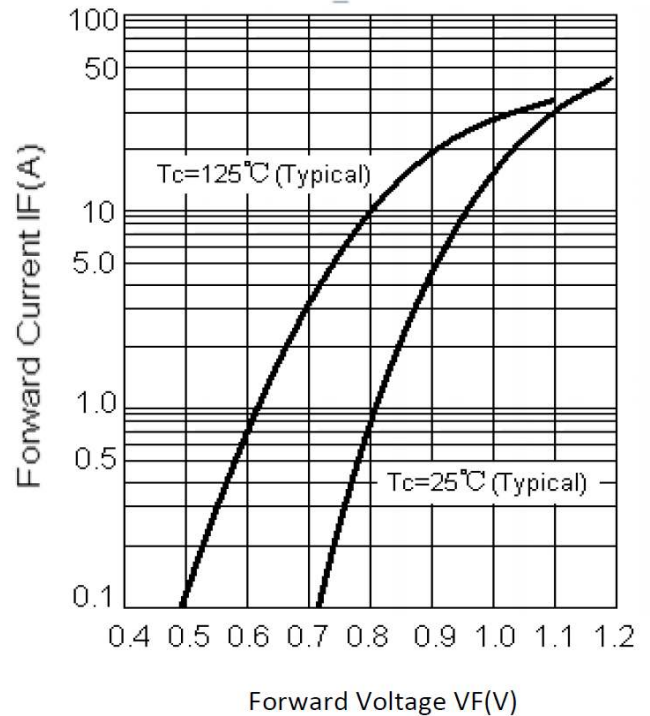
**Fig.2: Typical Reverse Characteristics**



**Fig.3: Max. Surge Current**



**Fig.4: Rated Forward Features**



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.

