

# GBJ25J-R-HAF

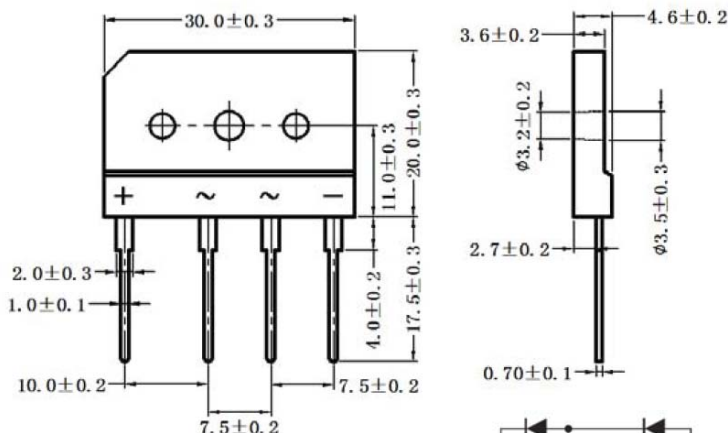
## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: 600 V

FORWARD CURRENT: 25 A

### Features

- Epoxy Resin material compliant with 94V-0 standards of UL Material Flammability
- Single in-line DIP package, compact size
- Low forward voltage, high forward current capacitive
- Small packaging size, high heat-Conducting performance
- High surge current capability
- Halogen and Antimony Free(HAF), RoHS compliant



Dimensions in inches and (millimeters)

### Mechanical data

- Case: Molded plastic, GBJ
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position: Any

### Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	GBJ25J	Units
	Marking	D25XB60	-
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current with Heatsink <sup>1)</sup> $T_C = 98^\circ\text{C}$	$I_{(AV)}$	25	A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350	A
Current Squared Time at $1 \text{ ms} \leq t \leq 10 \text{ ms}$	$I^2t$	300	$\text{A}^2\text{S}$
Maximum Forward Voltage at 12.5 A DC	$V_F$	1.05	V
Maximum Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 500	$\mu\text{A}$
Typical Thermal Resistance, without heatsink <sup>1)</sup>	$R_{\theta JA}$	22	$^\circ\text{C/W}$
Typical Thermal Resistance, with heatsink <sup>2)</sup>	$R_{\theta JC}$	1	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{Stg}$	- 45 to + 150	$^\circ\text{C}$

<sup>1)</sup> Install on PCB with stated size heatsink

<sup>2)</sup> Install on PCB without heatsink

Fig.1: Current Derating Curve

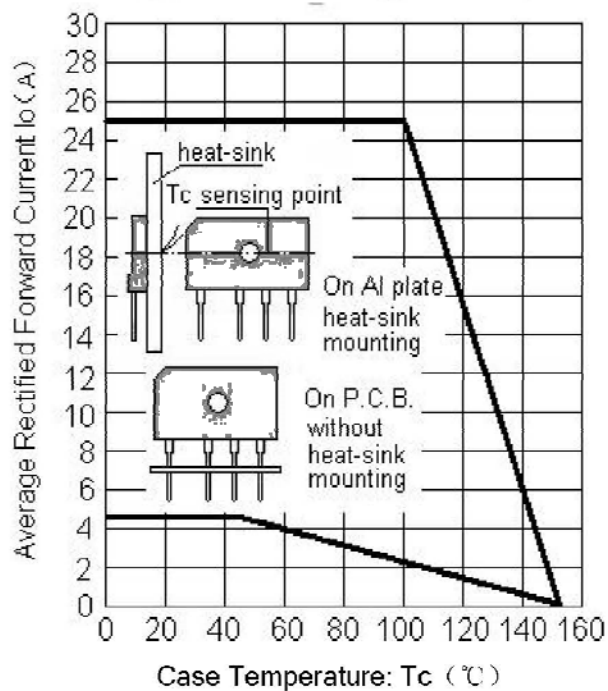


Fig.2: Typical Reverse Characteristics

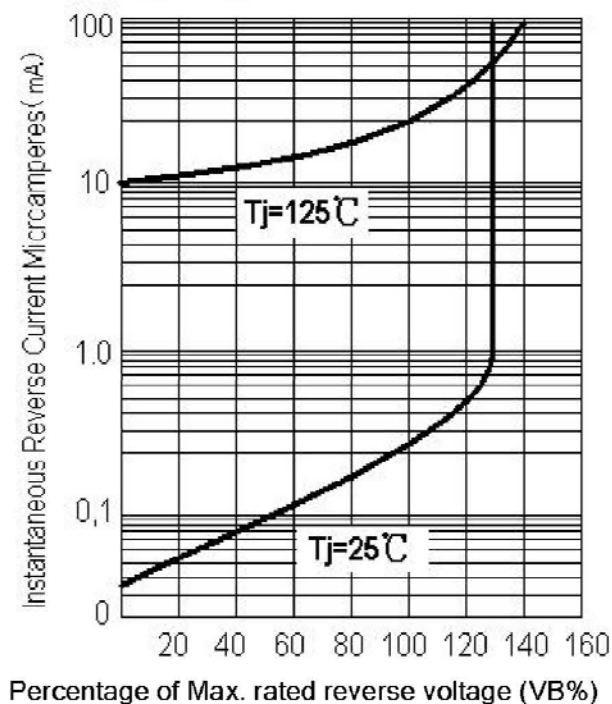


Fig.3: Max. Surge Current

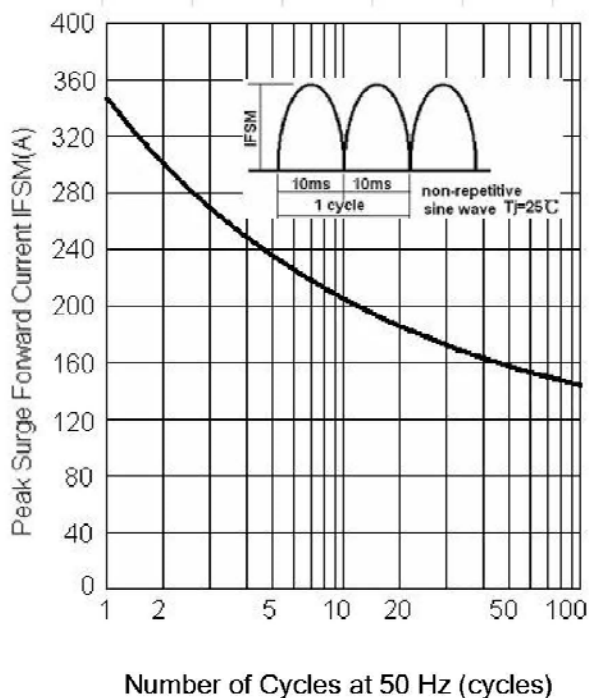


Fig.4: Rated Forward Features

