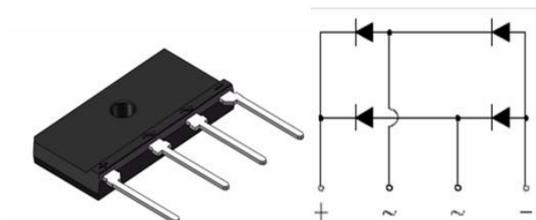


## Reverse Voltage 600~1000V Output Current 25.0A

### Features

- Thin Single In-Line package;
- Ideal for printed circuit boards;
- Glass Passivated chip junction;
- Low profile package;
- High Surge current capability;
- High case dielectric strength of 2500 VRMS;
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0;
- Same footprint V.S GBJ package;



GBJL

### Typical Applications

- General purpose use in ac-to-dc bridge full wave rectification for TV, Monitor, SMPS, Adapter, Printer, Audio equipment, and Home Applications application

### Mechanical Data

- Case: GBJL; Epoxy meets UL-94V-0 Flammability rating; Base P/N with suffix "E" on packing code-halogen free;
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102; E3 suffix for customer grade, meet JESD 201;

#### Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	GBJL25J-T1	GBJL25K-T1	GBJL25M-T1	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	600	800	1000	V
Maximum average forward rectified output current at	$T_C=110^{\circ}C$	$I_{F(AV)}$	25 <sup>(1)</sup>		A
	$T_A=25^{\circ}C$		3.6 <sup>(2)</sup>		
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350			A
Rating for fusing ( $t \leq 8.3ms$ )	$I^2t$	511			A <sup>2</sup> s
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to 150			°C

<b>Electrical Characteristics</b> (TA = 25 °C unless otherwise noted)						
Parameter	Test Conditions	Symbol	GBJL25J-T1	GBJL25K-T1	GBJL25M-T1	Unit
Maximum instantaneous forward voltage	I <sub>F</sub> =12.5A	V <sub>F</sub>	0.98			Volts
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	5.0			μA
	T <sub>A</sub> =125°C		150			
Typical reverse recovery time (I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A)		T <sub>rr</sub>	Max 6.0			μs
Typical thermal resistance per leg		R <sub>θJA</sub>	22 <sup>(2)</sup>			°C/W
		R <sub>θJL</sub>	2.5 <sup>(1)</sup>			

Notes:

- 1). Unit case mounted on Al plate heatsink;
- 2). Units mounted on PCB without heatsink;
- 3). Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M3 screw.

## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

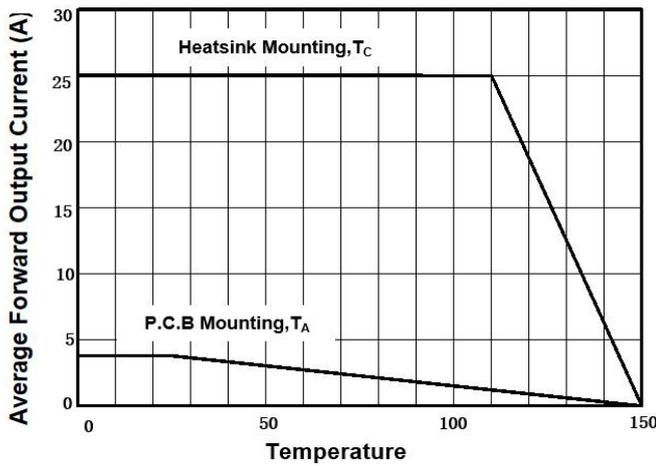


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

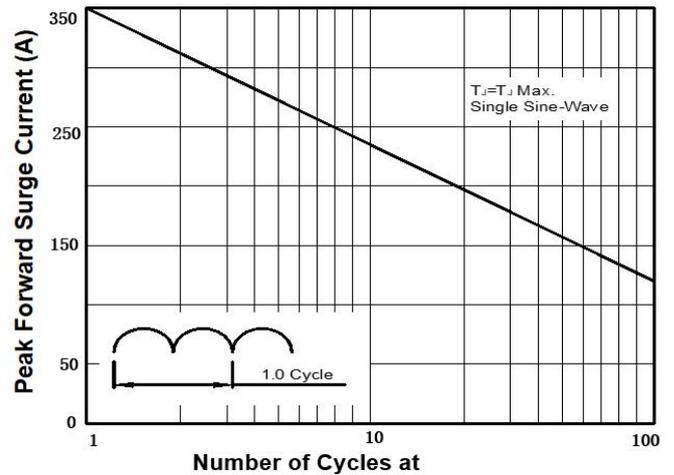


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

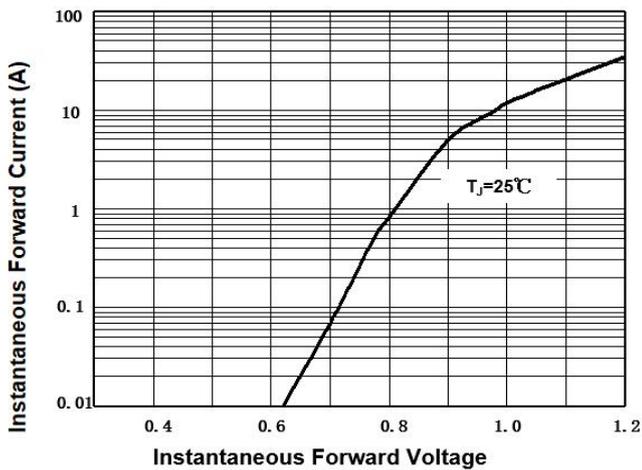
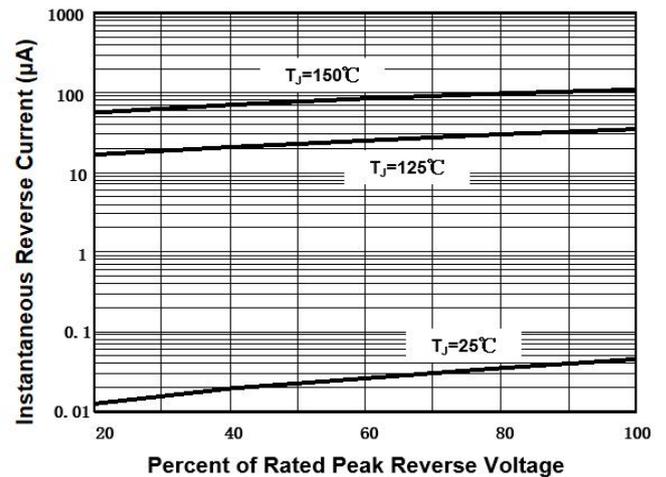


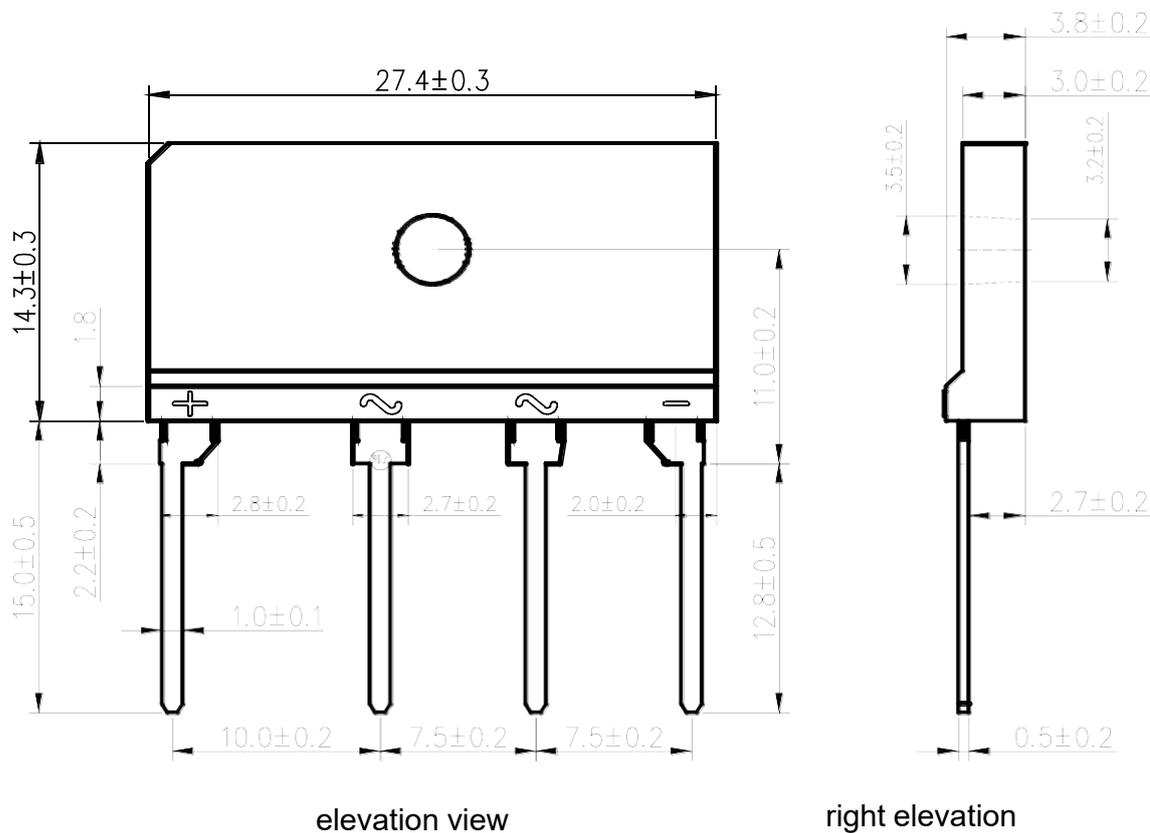
FIG.4-TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS



## Package Outline Dimensions

Unit:mm

First angle projection



elevation view

right elevation

## Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/1	Released Datasheet
Rev.B	2023/12/17	Modify document format

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