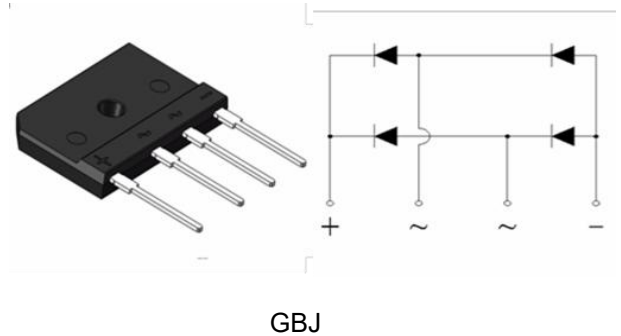


Features

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



Typical Applications

- General purpose use in AC-to-DC bridge full wave rectification for Switching Power Supply, Home Appliances, Office Equipment, Industrial Automation applications.

Mechanical Data

- Case: GBJ(5S)Molded plastic body;Base P/N with suffix"E" on packing code-halogen free
- Terminals:Plated leads solderable per MIL-STD-750, Method 2026;
- High temperature soldering guaranteed: Solder Dip 260°C, 10seconds;
- Polarity: As marked on body;
- Mounting Torque: 10cm·kg (8.8 inches·lbs) max;
- Recommend Torque:Mounting Torque: 5.7cm·kg (5inches·lbs);

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

Parameter	Symbol	GBJ8A	GBJ8B	GBJ8D	GBJ8G	GBJ8J	GBJ8K	GBJ8M	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TC=110°C	$I_{F(AV)}$	8.0 ⁽¹⁾							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	180							A
Rating for fusing(t<8.3ms)	I^2t	135							A ² sec
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	GBJ8A	GBJ8B	GBJ8D	GBJ8G	GBJ8J	GBJ8K	GBJ8M	Unit
Maximum instantaneous forward voltage dropper leg at 4A	V_F	1.00							Volts
Maximum DC reverse at rated DC blocking voltage per leg	TA=25°C	5.00							μA
	TA=125°C	250.00							

Thermal Characteristics									
Parameter	Symbol	GBJ8A	GBJ8B	GBJ8D	GBJ8G	GBJ8J	GBJ8K	GBJ8M	Unit
Typical thermal resistance per leg	$R_{\theta JA}$ (2)	22.0							° C /W
	$R_{\theta JC}$ (3)	1.6							

- 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

(TA = 25° C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

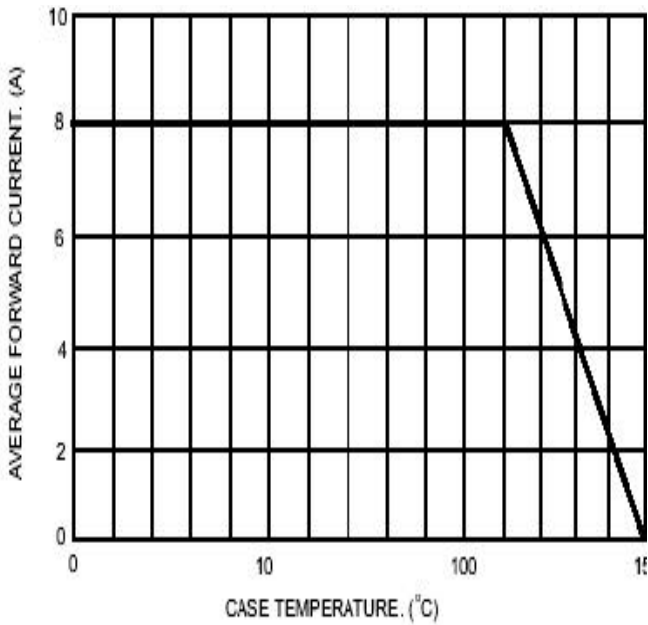


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

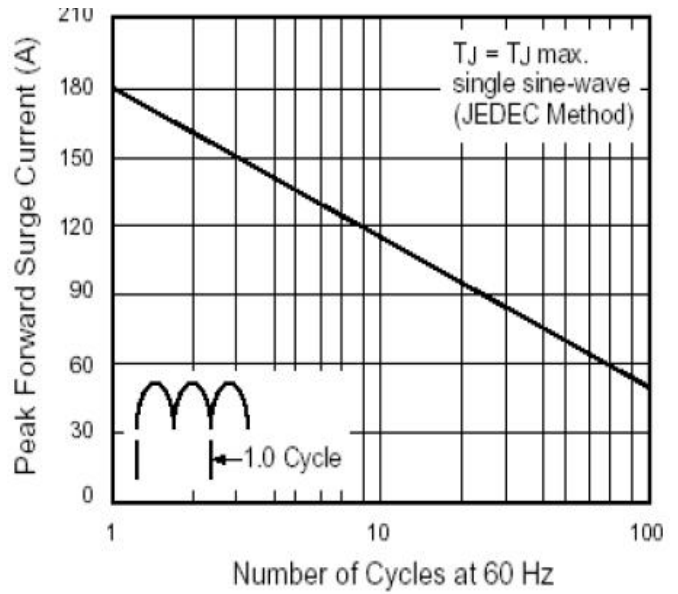


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

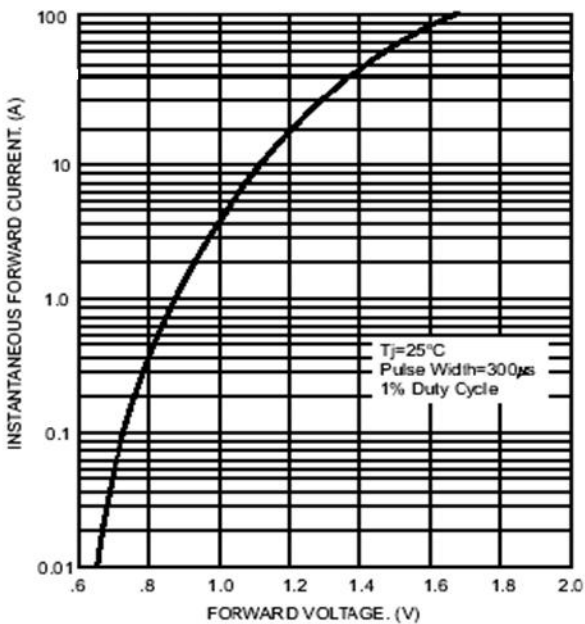
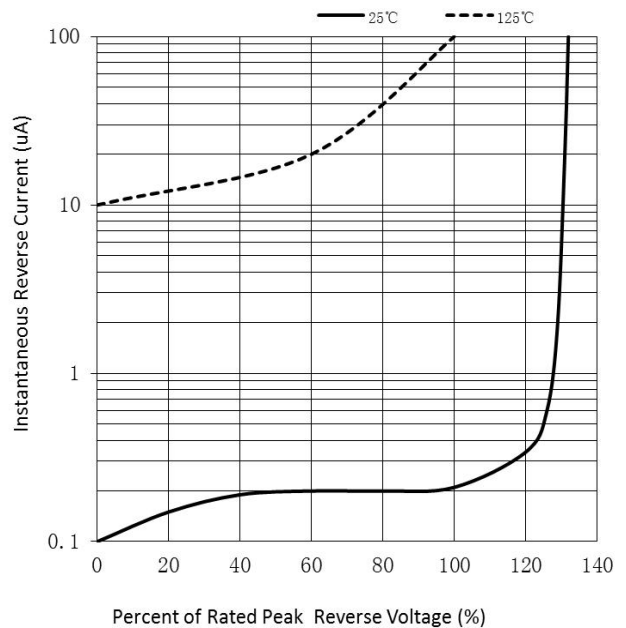


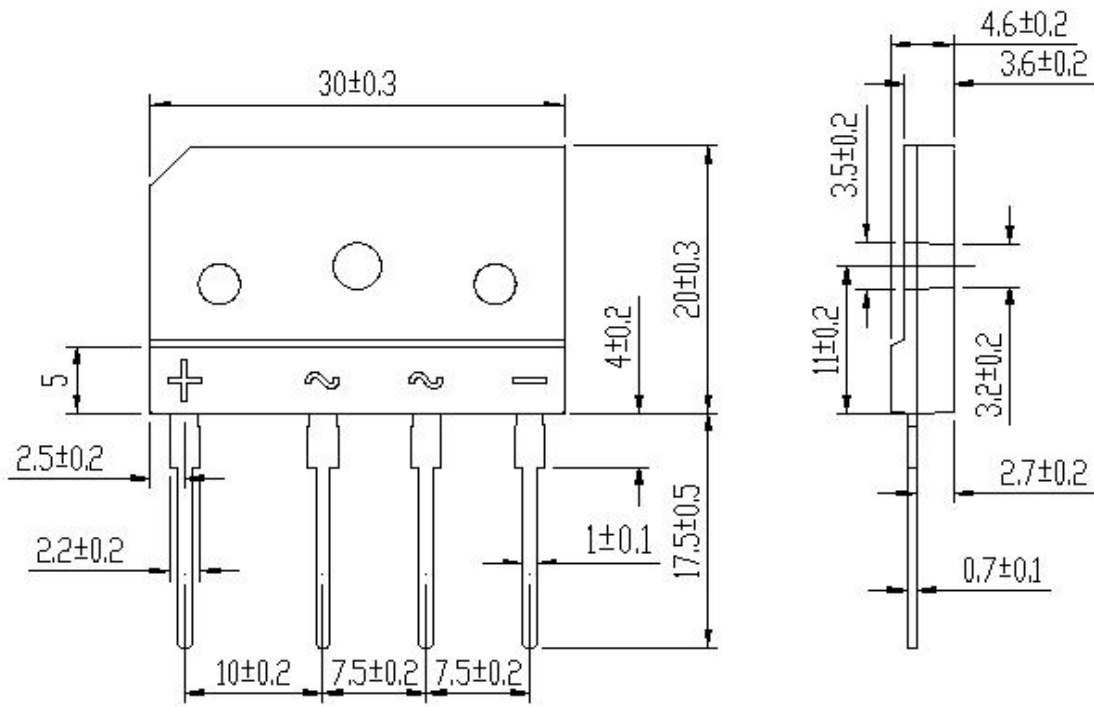
FIG.4-TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS



Package Outline Dimensions

in millimeters

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	2023/12/21	Modify document format

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