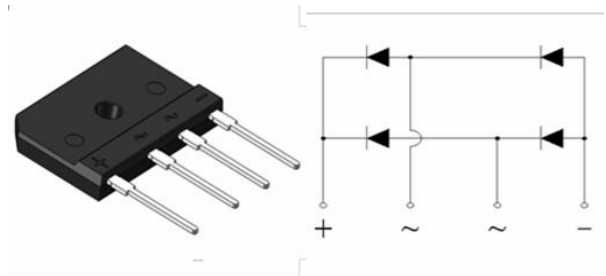


Reverse Voltage 50V~1000V Output Current 40A

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;



GBJ

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	GBJ40A	GBJ40B	GBJ40D	GBJ40G	GBJ40J	GBJ40K	GBJ40M	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 current	$I_{F(AV)}$	40							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	400							A
Rating for fusing(t<8.3ms)	I^2t	664							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	GBJ40A	GBJ40B	GBJ40D	GBJ40G	GBJ40J	GBJ40K	GBJ40M	Unit
Maximum instantaneous forward voltage drop per leg at 20A	V _F	1.10							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	GBJ40A	GBJ40B	GBJ40D	GBJ40G	GBJ40J	GBJ40K	GBJ40M	Unit
Typical thermal resistance per leg	R _{θJA} ⁽²⁾	22 ⁽²⁾							°C /W
	R _{θJC} ⁽³⁾	1.5 ⁽¹⁾							

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 FORWARD CURRENT DERATING CURVE

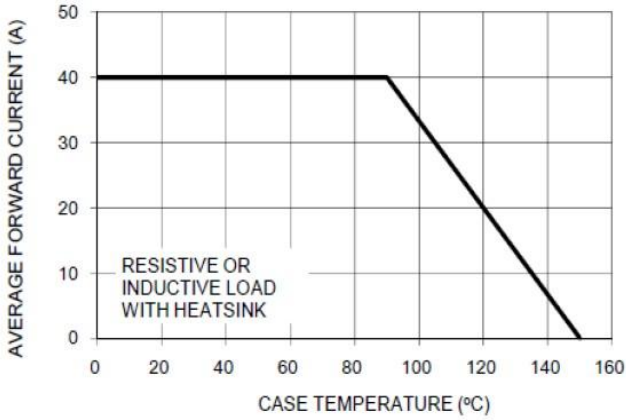


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

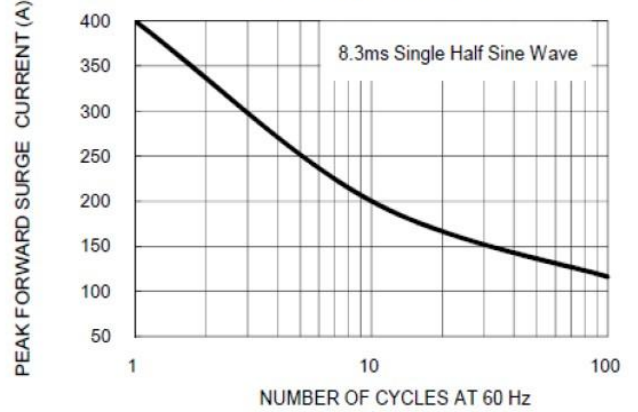


FIG. 3 TYPICAL REVERSE CHARACTERISTICS PER LEG

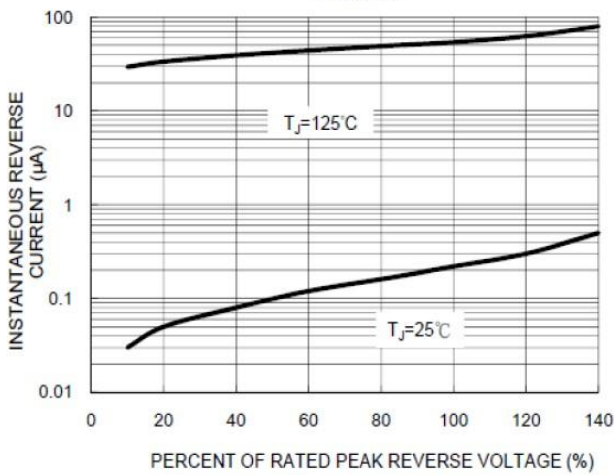
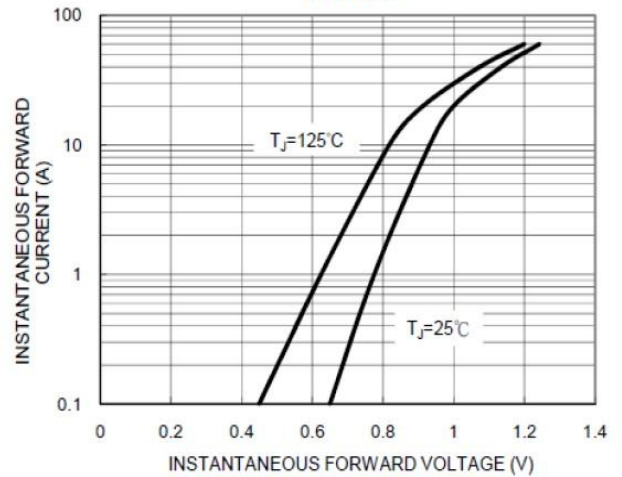


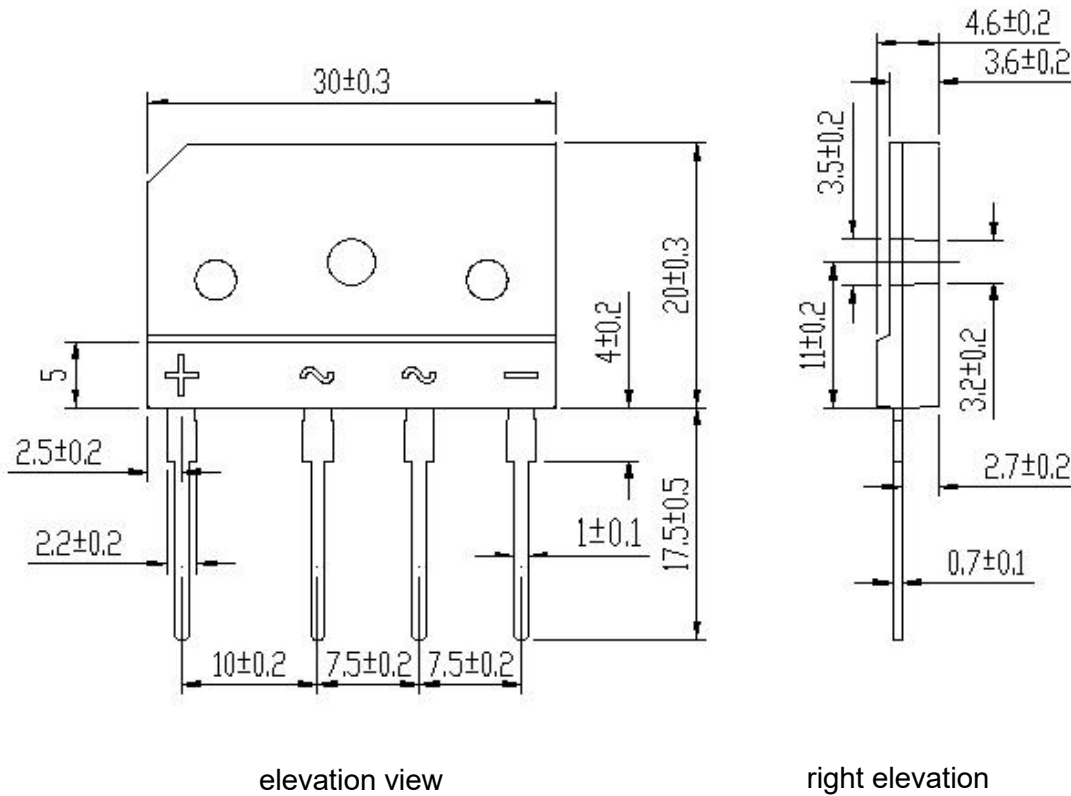
FIG. 4 TYPICAL FORWARD CHARACTERISTICS PER LEG



Package Outline Dimensions

in millimeters

First angle projection



Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/1	Released Datasheet
Rev.B	2023/12/22	Modify document format

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