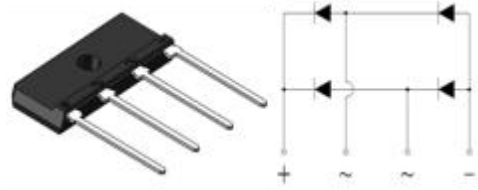


Reverse Voltage 600~1000V Output Current 6.0A

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 2000 VRMS ;
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0;
- Same footprint V.S KBJ (3S) package;



KBJL

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: KBJL; 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 class 1A whisker test;
- High temperature soldering guaranteed: Solder Dip 270°C, 10seconds;
- Polarity: As marked on body;
- Mounting Torque: 5.7cm·kg (5.0 inches·lbs) max;
- Recommend Torque: Mounting Torque: 5.7cm·kg (5inches·lbs);

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

Parameter	Symbol	KBJL6J	KBJL6K	KBJL6M	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	$T_C=110^{\circ}C$	$6.0^{(1)}$			A
	$T_A=25^{\circ}C$	$2.4^{(2)}$			
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	120			A
Rating for fusing($t<8.3ms$)	I^2t	60			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	KBJL6J	KBJL6K	KBJL6M	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	V_F	0.96			Volts
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	5.0			μA
		150			
Typical thermal resistance per leg	$R_{\theta JA}^{(2)}$	23			$^{\circ}C/W$
	$R_{\theta JC}^{(1,3)}$	2.2			

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

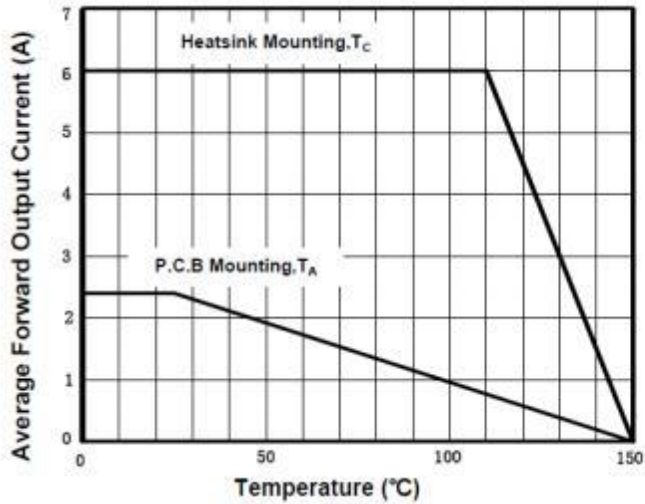


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

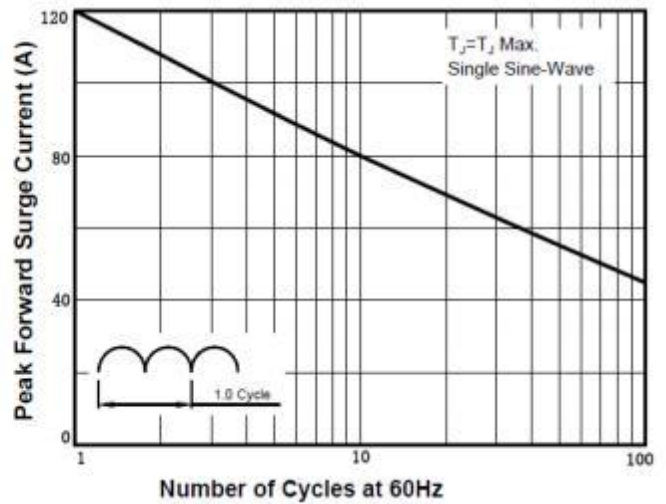


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

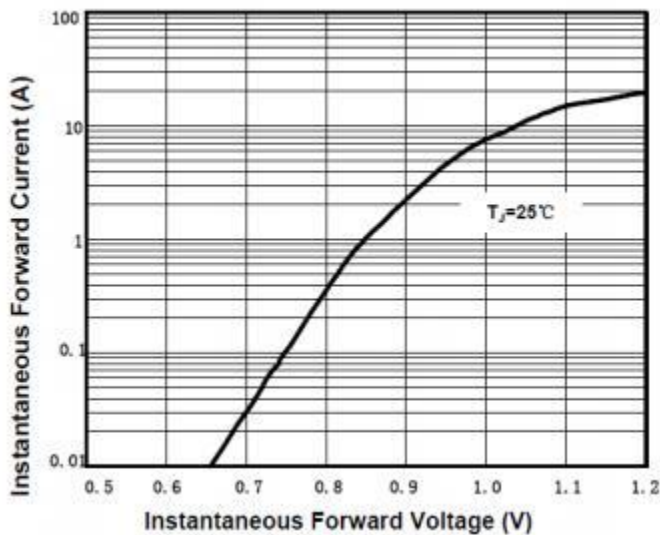
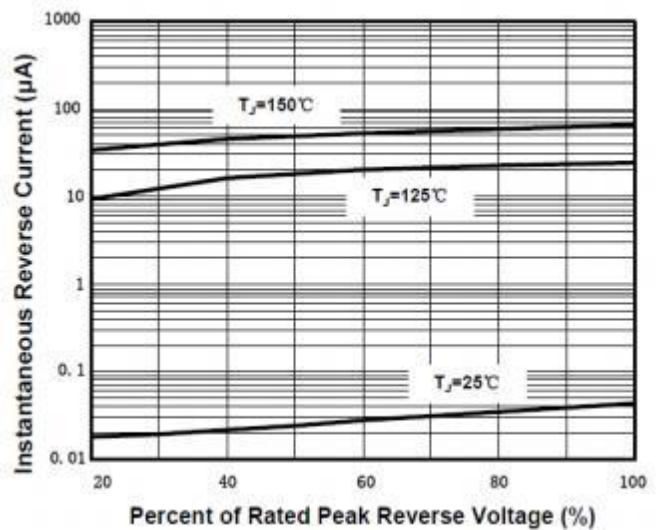


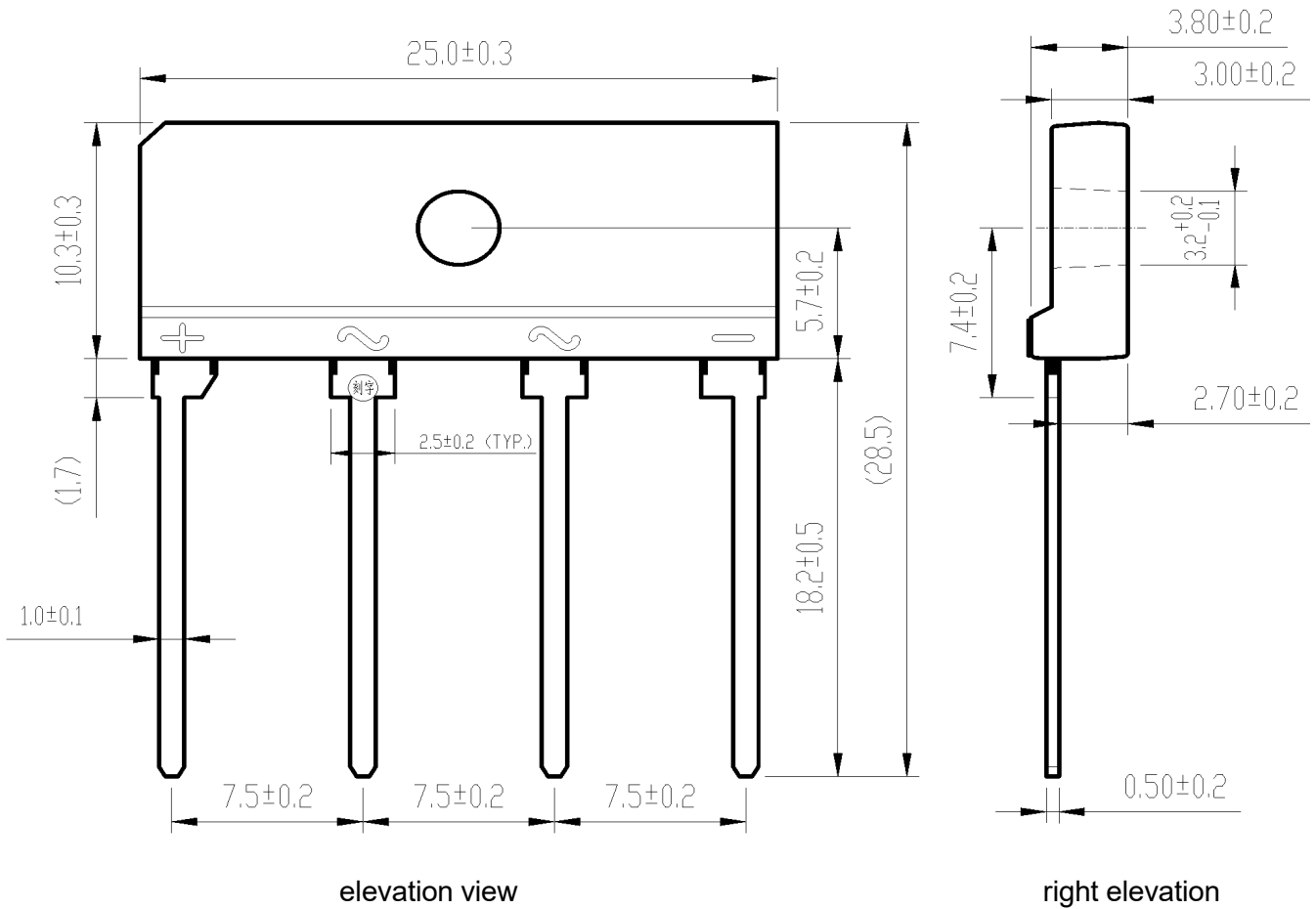
FIG.4-TYPICAL REAK REVERSE
VOLTAGE CHARACTERISTICS



Package Outline Dimensions

Package Dimensions in mm

First angle projection



Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/1	Released Datasheet
Rev.B	2023/12/8	Modify document format

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