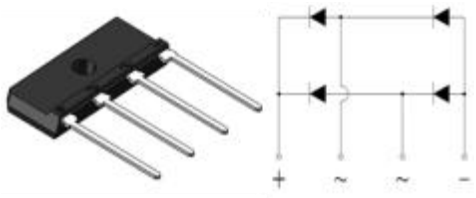
Reverse Voltage 600~1000V Output Current 6.0A

Features



KBJL

- 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;

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 Torgue: 5.7cm-kg (5.0 inches-lbs) max;
- Recommend Torgue: Mounting Torgue: 5.7cm-kg (5inches-lbs);

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

Parameter		Symbol	KBJL6JA	KBJL6KA	KBJL6MA	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°C	$I_{F(AV)}$	6.0(1)			A
	T_A=25°C		2.0(2)			
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	90			A
Rating for fusing(t<8.3ms)		I^2t	34			A^2sec
Operating junction and storage temperature range		T_J, T_{STG}	- 55 to + 150			°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter		Symbol	KBJL6JA	KBJL6KA	KBJL6MA	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A		V_F	1.00			Volts
Maximum DC reverse current at rated DC blocking voltage per leg	TA=25°C	I_R	5.0			μA
	TA=125°C		150			
Typical thermal resistance per leg		$R_{\theta JA}$(2)	20			°C/W
		$R_{\theta JC}$(1,3)	2.5			

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

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

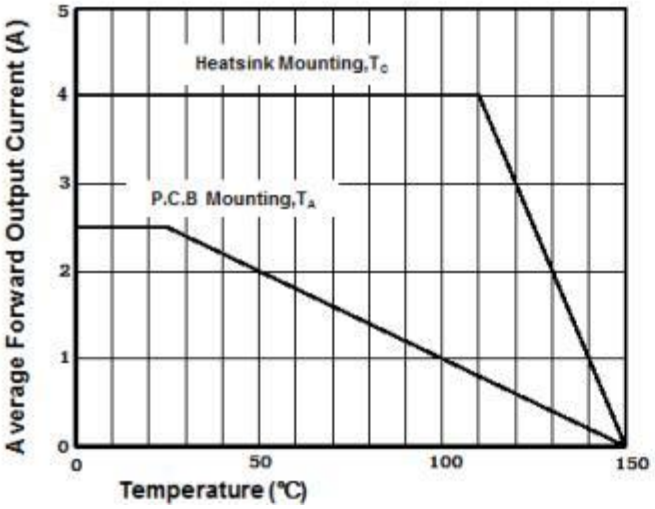


FIG.2-MAXIMUM NON-REPETITEVE PEAK FORWARD SUGER CURRENT

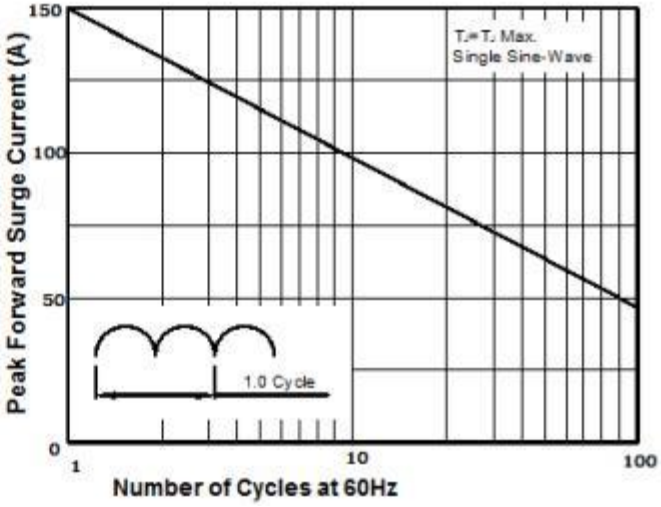


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISITCS

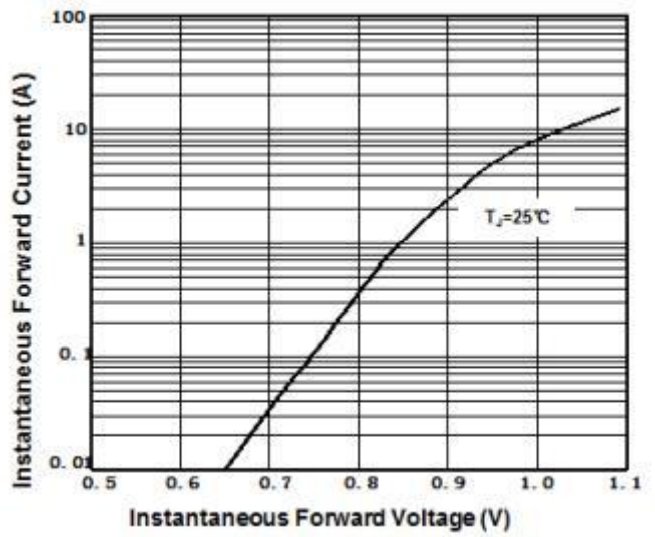
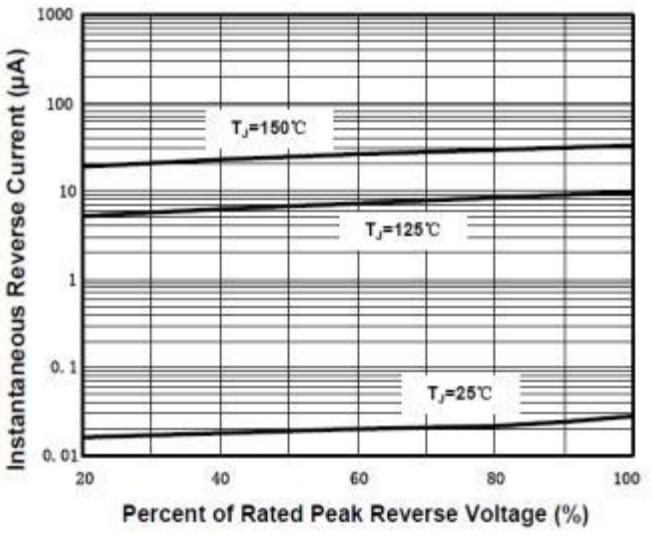


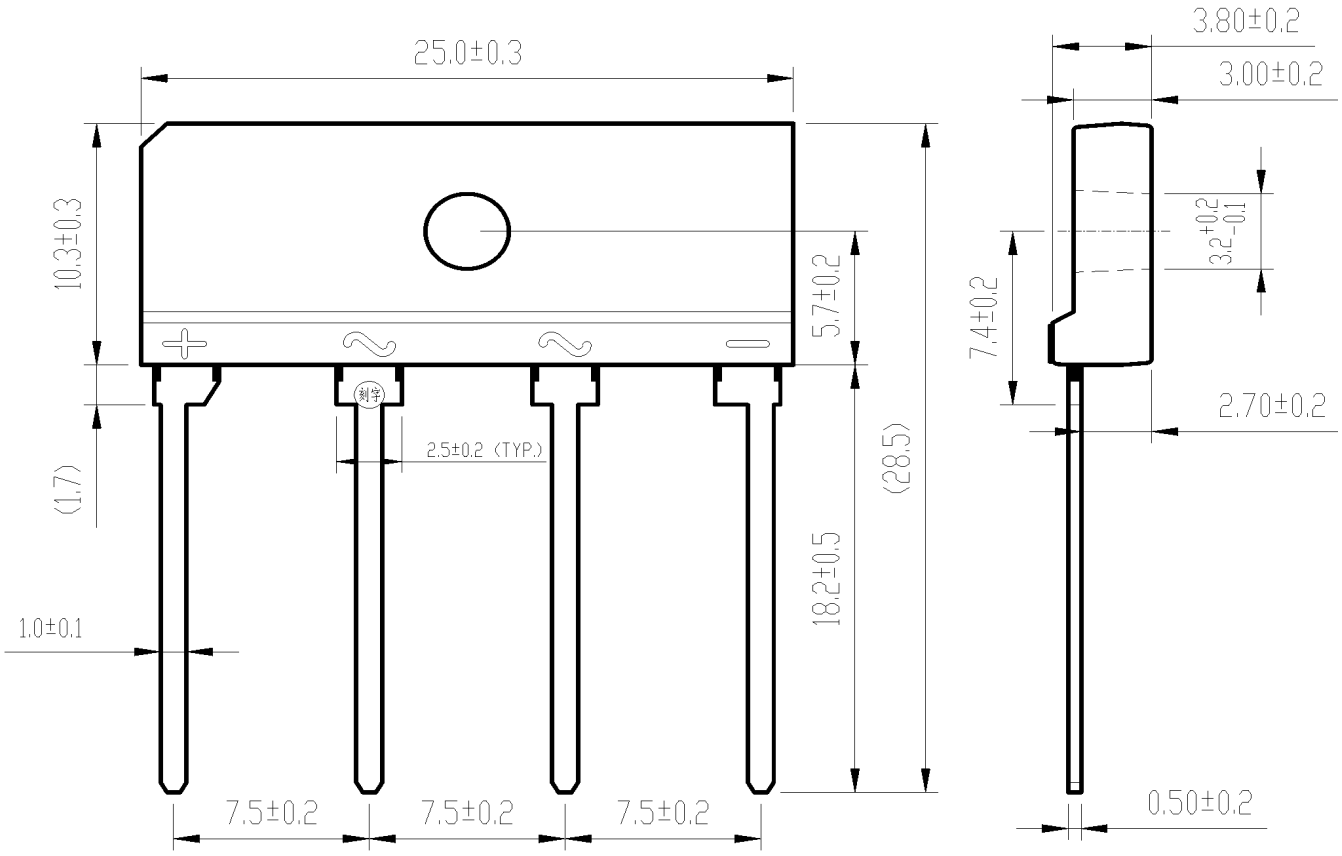
FIG.4-TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS



Package Outline Dimensions

Package Dimensions in mm

First angle projection



elevation view

right elevation

Revision History

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

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