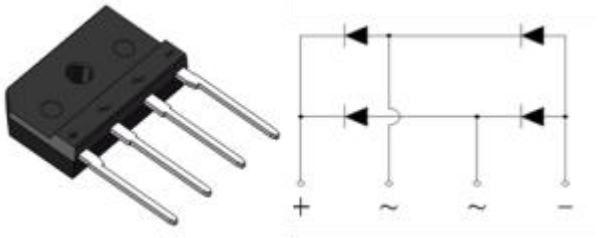
Reverse Voltage50~1000V Output Current 10A



KBJ

Features

- Thin Single In-Line package;
- Ideal for printed circuit boards;
- Glass Passivated chip junction;
- High Surge current capability;
- High case dielectric strength of 2000 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: KBJ(3S)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 Torgue: 10cm-kg (8.8 inches-lbs) max;
- Recommend Torgue:Mounting Torgue: 5.7cm-kg (5inches-lbs);

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

Parameter		Symbol	KBJ10A	KBJ10B	KBJ10D	KBJ10G	KBJ10J	KBJ10K	KBJ10M	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	T_C=100°C	$I_{F(AV)}$	$10^{(1)}$							A
	T_A=25°C		$2.7^{(2)}$							
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^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	KBJ10A	KBJ10B	KBJ10D	KBJ10G	KBJ10J	KBJ10K	KBJ10M	Unit
Maximum instantaneous forward voltage drop per leg at 5A		V_F	1.00							Volts
Maximum DC reverse at rated DC blocking voltage per leg	TA=25°C	I_R	5.0							μA
	TA=125°C		250							
Typical thermal resistance per leg		$R_{\theta JA}$(2)	26							°C/W
		$R_{\theta JC}$(1)	5							

Notes: 1. Unit case mounted on 14*14*0.15 cm thick AL plate heatsink

2. Units mounted in free air, no heatsink on P.C.B. with 0.5*0.5" (12.7*12.7mm) copper pads and 0.375"(9.5mm) lead length

3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with M3 screws

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

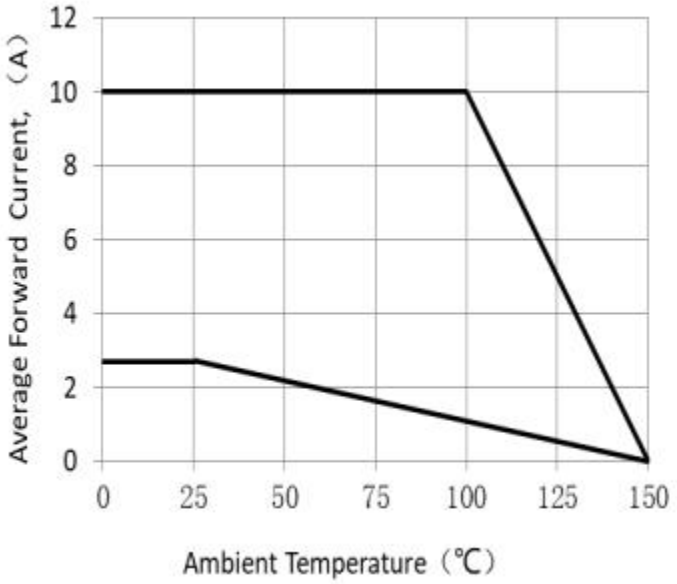


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISITCS

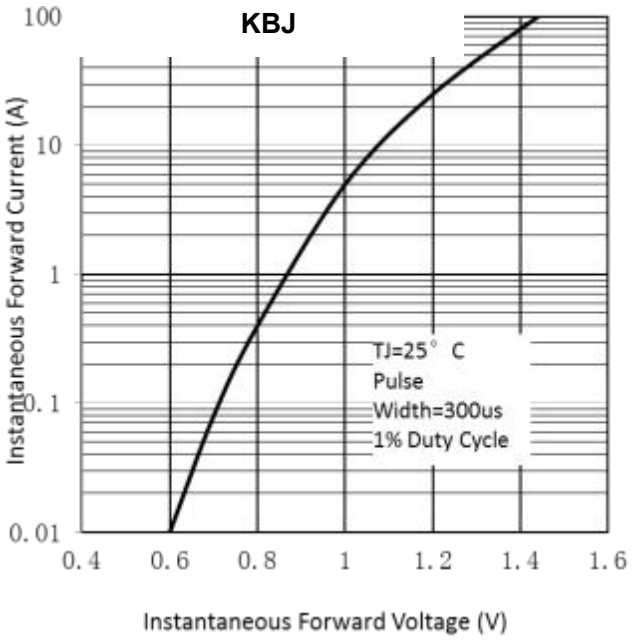


FIG.3-TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS

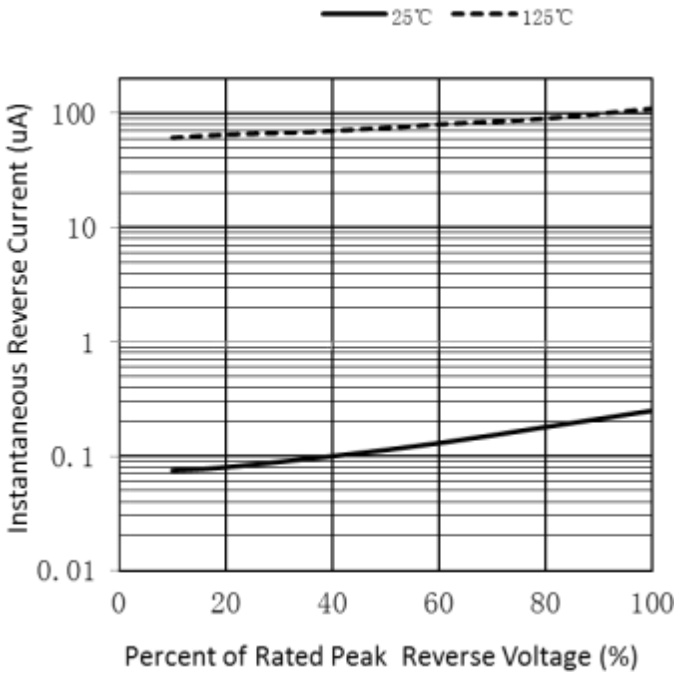
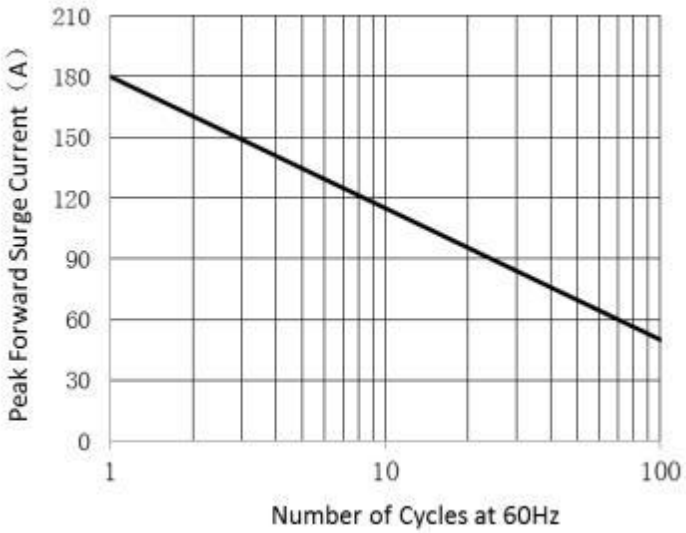


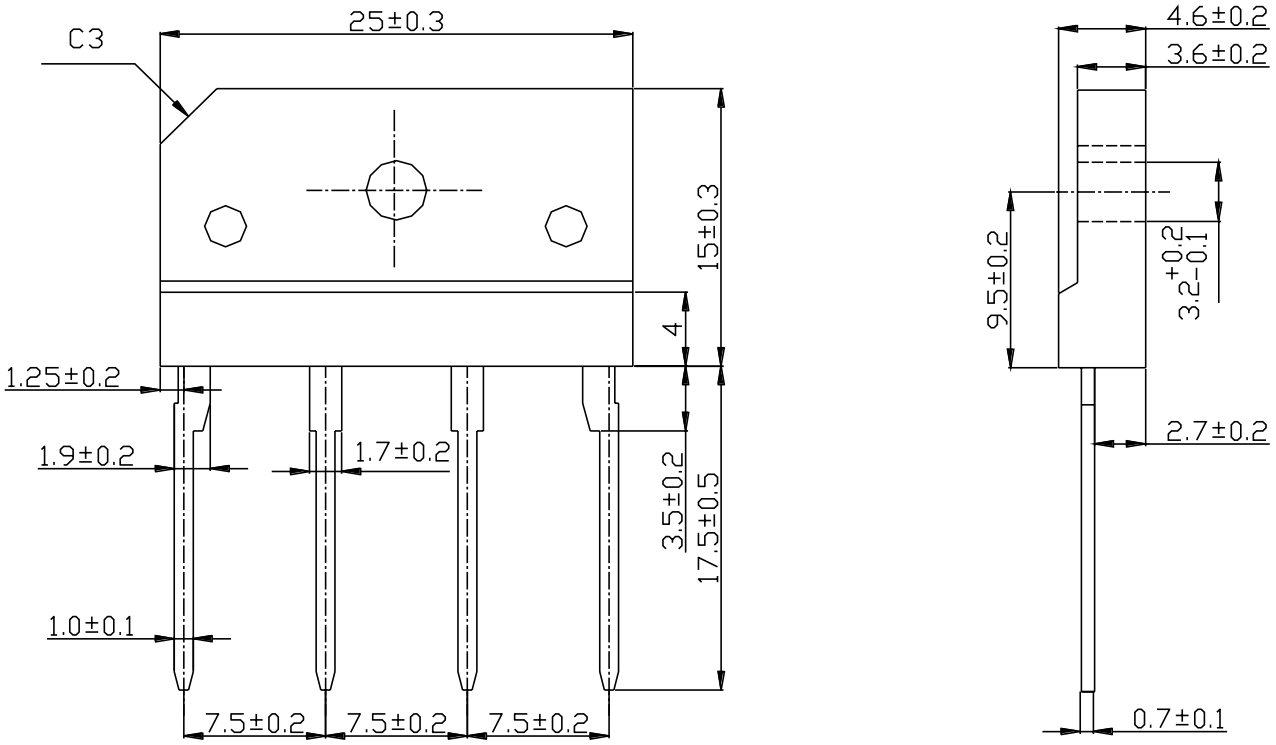
FIG.4-MAXIMUM NON-REPETITEVE PEAK FORWARD SUGER CURRENT



Package Outline Dimensions

in millimeters

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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