

4A Single Phase Bridge Rectifier

Features

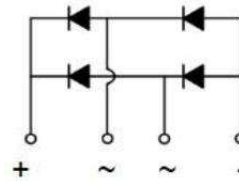
- Ideal for printed circuit boards
- High case dielectric strength
- Reverse Voltage : 50 to 1000V
- Forward Current : 4A
- High temperature soldering : 260°C/10s at terminal



KBJ

Applications

- General purpose use in AC/DC bridge full wave rectification for printer, power supply, switching mode power supply, adapter, and home appliances applications.



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	KBJ 4005	KBJ 401	KBJ 402	KBJ 404	KBJ 406	KBJ 408	KBJ 410	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 @ $T_C=100^{\circ}C$ with heatsink (Note 1)	$I_{F(AV)}$	4.0							A
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load(JEDEC method)	I_{FSM}	135							A
Rating for fusing ($t < 8.3ms, T_j = 25^{\circ}C$)	I^2t	75							A ² s
Maximum Instantaneous Forward Voltage @2.0A	V_F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	10							μA
	$T_A=125^{\circ}C$	500							
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	4.0							$^{\circ}C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)							$^{\circ}C$

Notes:

1. Device mounted on 75mm*75mm*1.6mm Al plate heatsink.

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG.1 - Typical forward current derating curve

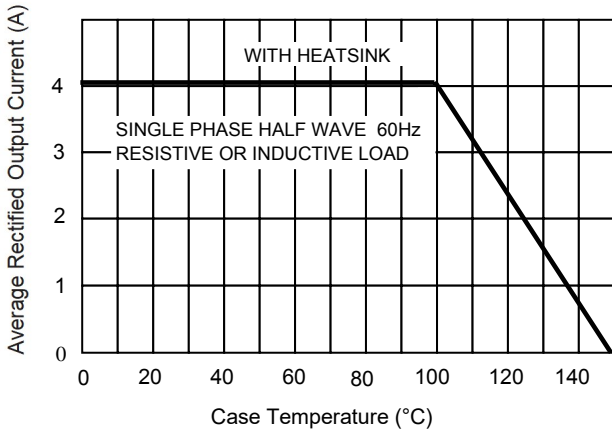


FIG.2 - Maximum Non-Repetitive Peak Forward Surge Current

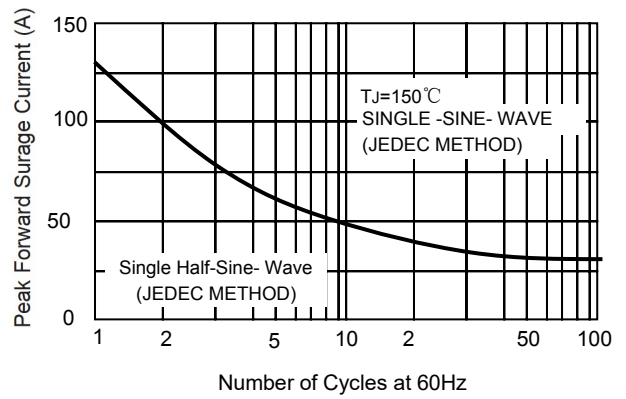


FIG.3 - Typical Junction Capacitance

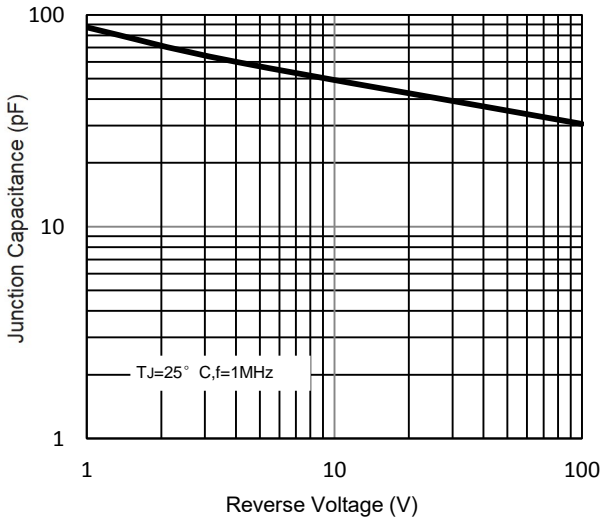


FIG.4 - Typical Instantaneous Forward Characteristics

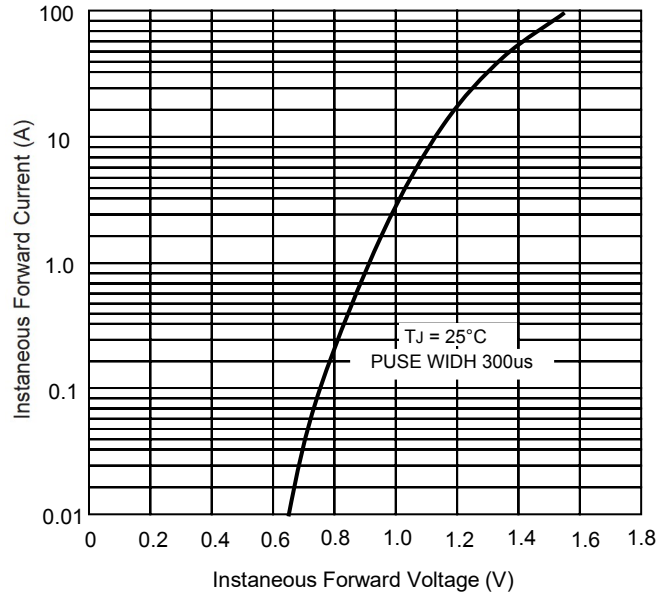
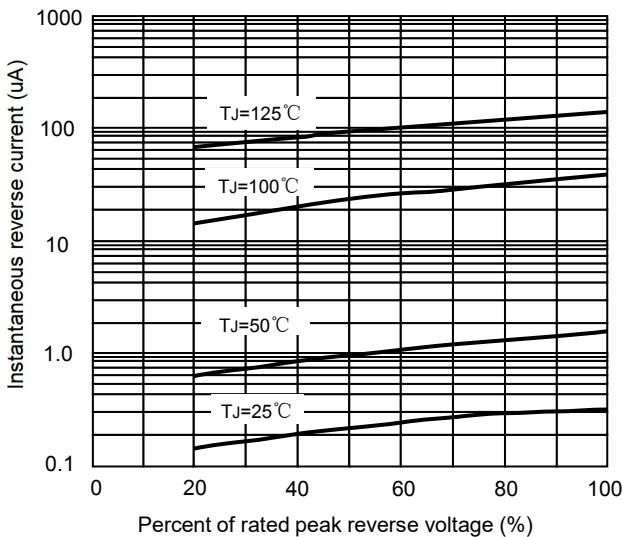
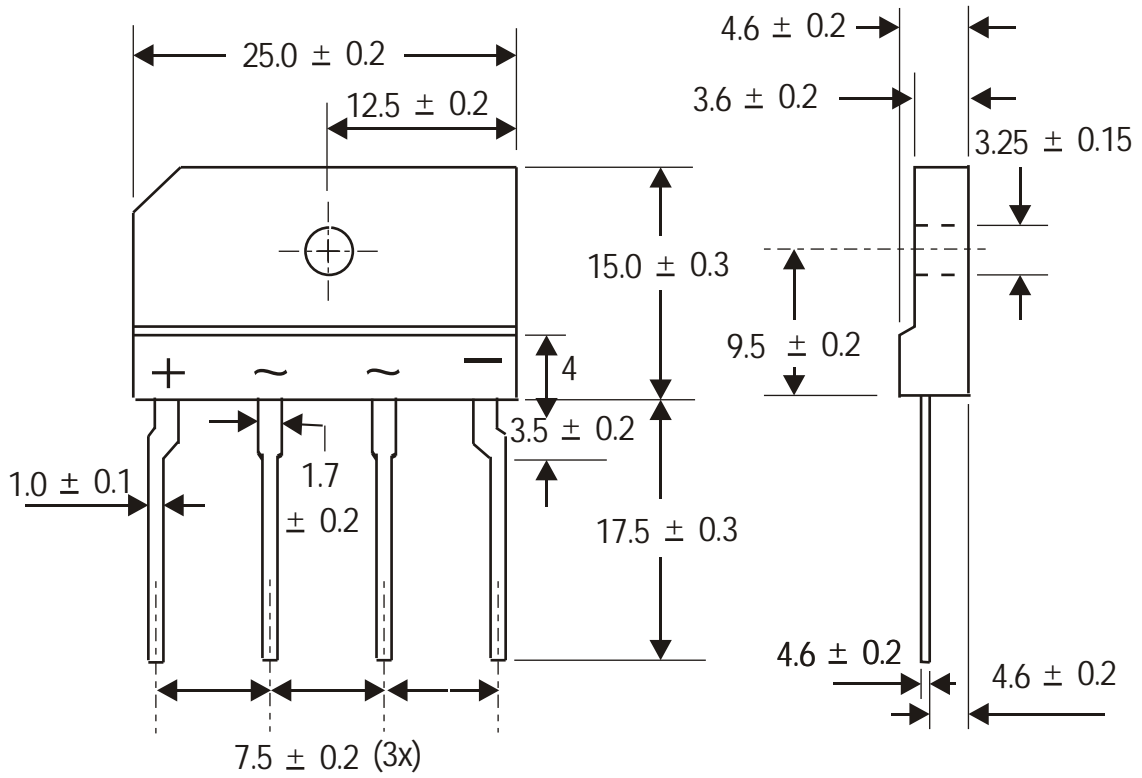


FIG.5 - Typical reverse Characteristics



Package Outlines (Dimensions in mm)

Plastic surface mounted package(KBJ)



Dimensions in millimeters(1mm =0.0394")

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