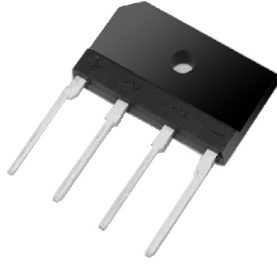


KBJ4005 thru KBJ410

4.0 A Single-Phase Silicon Bridge Rectifier Rectifier Reverse Voltage 50 to 1000V

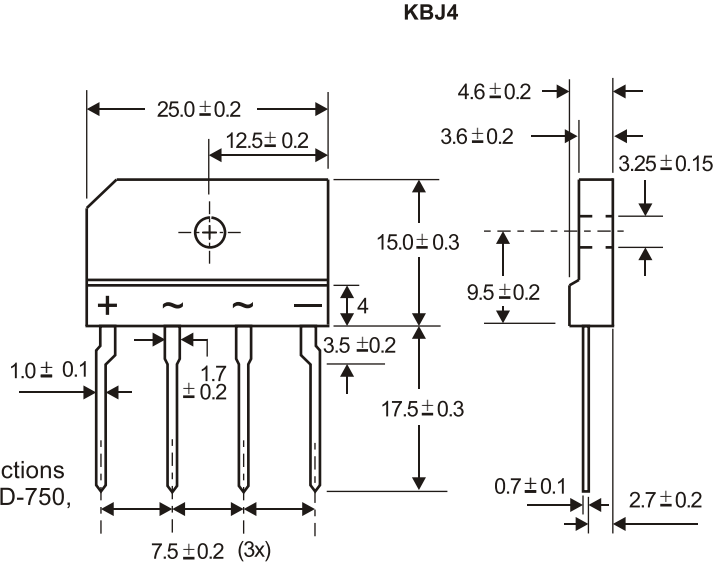


Features

- This series is UL listed under the Recognized Component Index, file number E142814
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500VRMS
Ideal for printed circuit boards
- High surge current capability

Mechanical Data

Case : Molded plastic body over passivated junctions
 Terminals : Plated leads solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbols molded on body
 Mounting Position : Any(3)
 Mounting Torque : 5 in-lbs max.
 Weight : 0.15 ounce, 4.0 grams (approx)



Dimensions in millimeters(1mm = 0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

Parameter	Symbol	KBJ 4005	KBJ 401	KBJ 402	KBJ 404	KBJ 406	KBJ 408	KBJ 410	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current T _c = 100°C	I _{F(AV)}	4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	120							A
Rating for fusing (t<8.3ms)	I ² t	60							A ² sec
Maximum thermal resistance (Note 1)	R _{thJC}	5.5							°C / W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to + 150							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

Parameter	Symbol	KBJ 4005	KBJ 401	KBJ 402	KBJ 404	KBJ 406	KBJ 408	KBJ 410	Unit
Maximum instantaneous forward voltage drop per leg at 2.0A	V _F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°C	I _R	10 250							μA

Notes: (1) Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.
 (2) Recommended mounting position is to bolt down on heat sink with silicone thermal compound for maximum heat transfer with #6 screw.

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

KBJ4005 thru KBJ410

Fig. 1 Derating Curve for Output Rectified Current

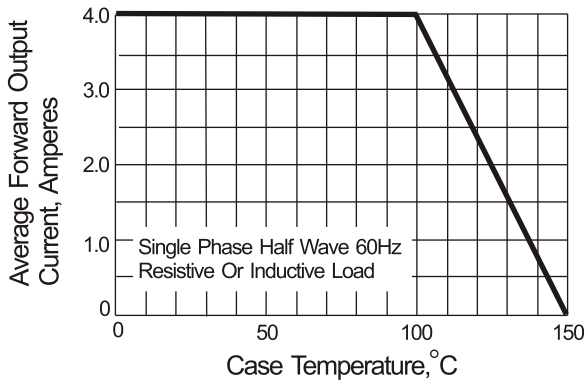


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

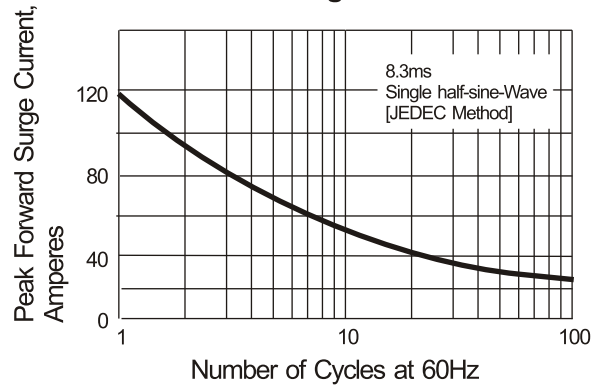


Fig. 3 Typical Instantaneous Forward Characteristics

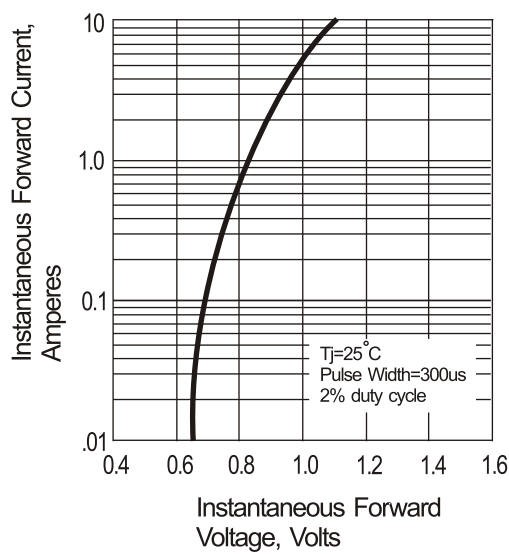


Fig. 4 Typical Reverse Characteristics at $T_J=25^\circ\text{C}$

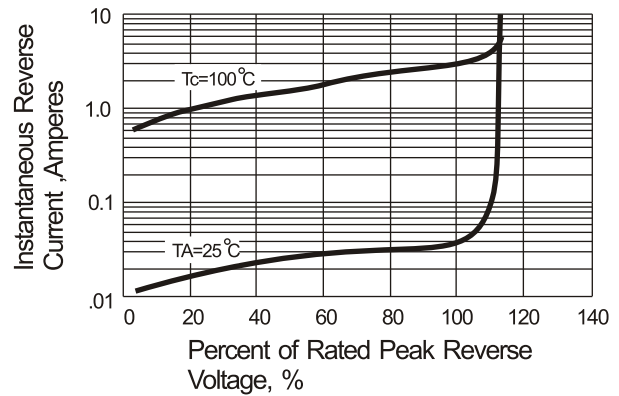
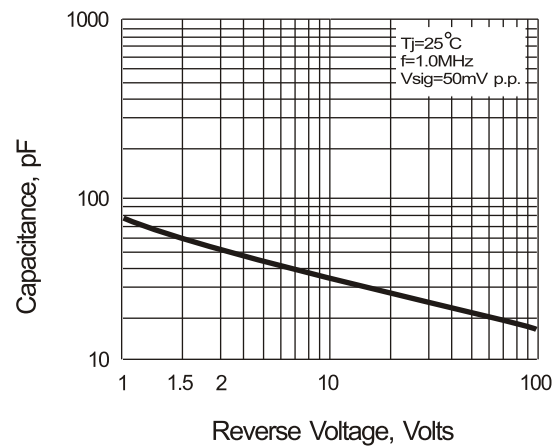


Fig. 5 Typical Junction Capacitance



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