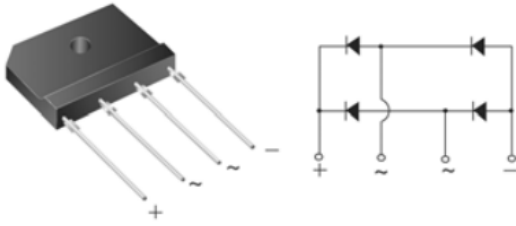


KBJ



Features

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874



Primary characteristics

$I_{F(AV)}$	4.0A
V_{RRM}	50V to 1000V
I_{FSM}	150A
I_{RM}	5 μ A
V_{FM} at $I_F=2.0$	1.0
T_J max.	150 °C

Applications

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

Mechanical data

- Case: KBJ
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque: 10cm·kg(8.8 inches·lbs)max.
- Recommended Torque: 5.7 cm·kg(5 inches·lbs)

Maximum rating (Ta=25°C unless otherwise noted)

Parameter	Sym	KBJ							Unit
		KBJ 4005V	KBJ 401V	KBJ 402V	KBJ 404V	KBJ 406V	KBJ 408V	KBJ 410V	
Max. repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Max. RMS reverse voltage	V_{RMS}	35	70	140	280	420	560	700	V
Max. DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	4.0							A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	150							A
Rating for fusing, $1ms \leq t \leq 8.3ms$	I^2t	93							A ² S
Max. instantaneous forward voltage drop per diode	V_{FM}	1.0 (2.0)							V
Max. instantaneous reverse current at rated DC blocking voltage	I_{RM}	5							μ A
		250							μ A
Operating junction temperature	T_J	-55 ~ +150							°C
Storage temperature	T_{STG}	-55 ~ +150							°C
Typical thermal resistance (Note2,1)	R J-A	26							°C/W
	R J-C	5							°C/W

Notes

- (1) Unit case mounted on 6.3x6.3x0.15cm thick Al plate heatsink
- (2) Units mounted on P.C.B. with 0.5 x 0.5" (13 x 13 mm) copper pads and 0.375" (9.5 mm) lead length



Ordering information (Example)

PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
KBJ410V				

Typical characteristics

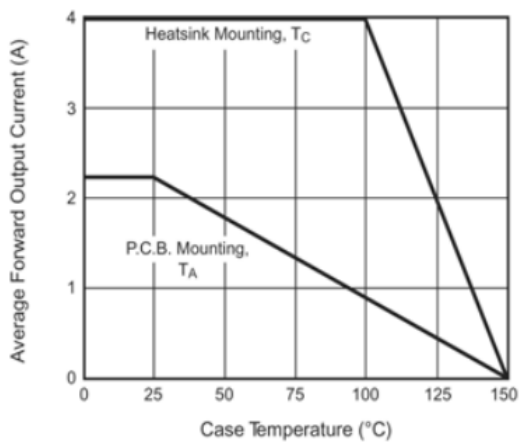


Figure 1. Derating Curve Output Rectified Current

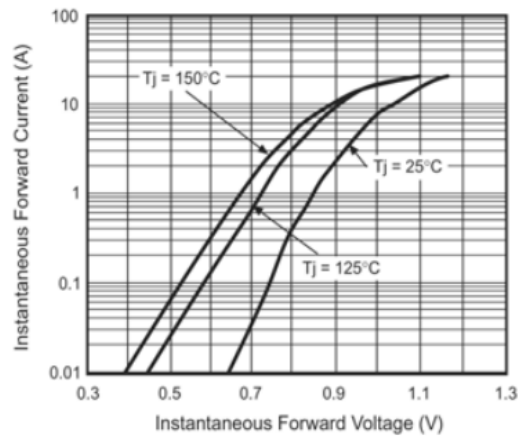


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

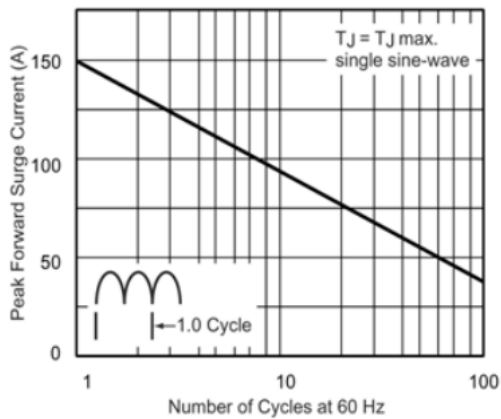


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

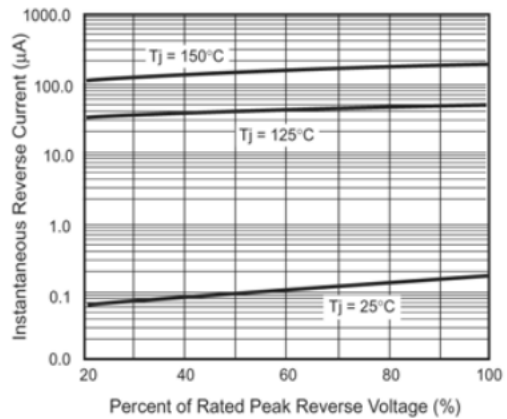
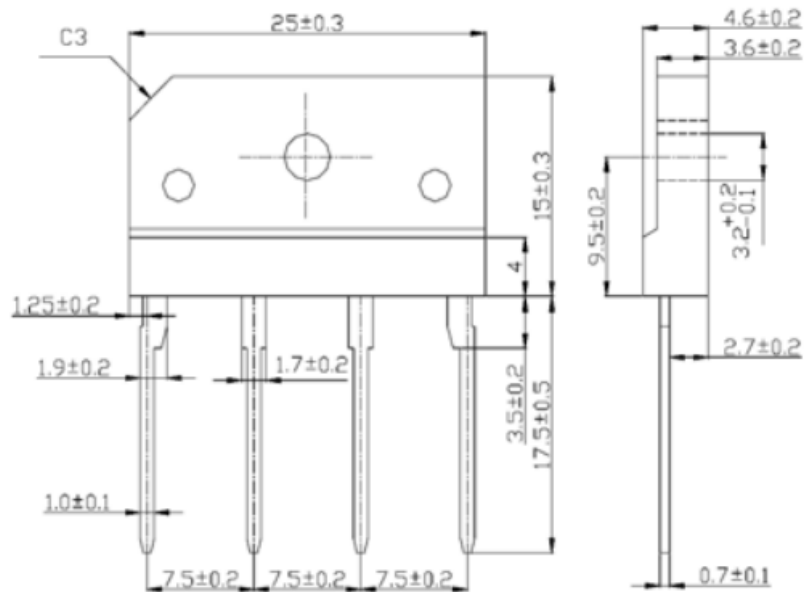


Figure 4. Typical Reverse Characteristics Per Leg

Package outline dimensions



Package outline dimensions in millimeters

Golden SEMI Inc. - Legal Notice

Disclaimer – All data and specifications are subject to changes without notice

GOLDEN SEMI Inc, it's affiliates, agents, distributors and employees neither accept nor assume any responsibility for errors or inaccuracies. All data and specifications are intended for information and provide a product description only. Electrical and mechanical parameters listed in GOLDEN SEMI data sheets and specifications will vary dependent upon application and environmental conditions . GOLDEN SEMI is not liable for any damages occurred or resulting from any circuit, product or end-use application for which it's products are used. GOLDEN SEMI products are not intended or designed for use in life saving or sustaining apparatus and purchase of any GOLDEN SEMI products automatically indemnifies GOLDEN SEMI against any claims or damages resulting from application malfunction