

## Glass Passivated Bridge Rectifier

**Voltage** **1000 V**

**Current** **4A**



**KBJ-2**

### Features

- Glass passivated chip junction
- UL recognition file number E526209
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

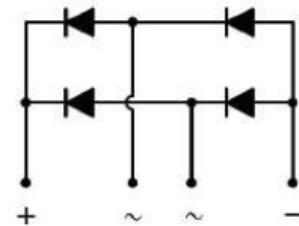


### Mechanical Data

- Case : KBJ-2 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 4.1442 grams

### Application

- Computing Power / Desktop Power
- Game Console Power
- Server Power
- Air Conditioner out door power board
- High Power/High Efficiency Power
- Home Appliances Power Board



Key Parameters	
Parameter	Value
$V_{RRM}$	1000V
$I_F(AV)$	4A
$I_{FSM}$	135A
$I_R$	5uA
Package	KBJ-2

**Maximum Ratings and Thermal Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage		$V_{RRM}$	1000	V
Maximum RMS Voltage		$V_{RMS}$	700	V
Maximum DC Blocking Voltage		$V_{DC}$	1000	V
Maximum Average Forward Current	With heatsink	$I_{F(AV)}$	4	A
	Without heatsink		2.7	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	$I_{FSM}$	135	A
	@ $T_A = 125^\circ\text{C}$		108	
Peak Forward Surge Current : 1.0 ms Single Half Square -Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	$I_{FSM}$	250	A
	@ $T_A = 125^\circ\text{C}$		200	
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )		$I^2 t$	75.6	$\text{A}^2\text{s}$
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 4\text{ V}$		$C_J$	45	pF
Typical Thermal Resistance (Note 1) (with heatsink)		$R_{\theta JA}$	10	$^\circ\text{C/W}$
		$R_{\theta JL}$	4	
		$R_{\theta JC}$	3	
Operating junction and storage temperature range		$T_J, T_{STG}$	-55~150	$^\circ\text{C}$
Mounting torque @ Recommend torque:5Kg.cm		Tor	8	Kg.cm

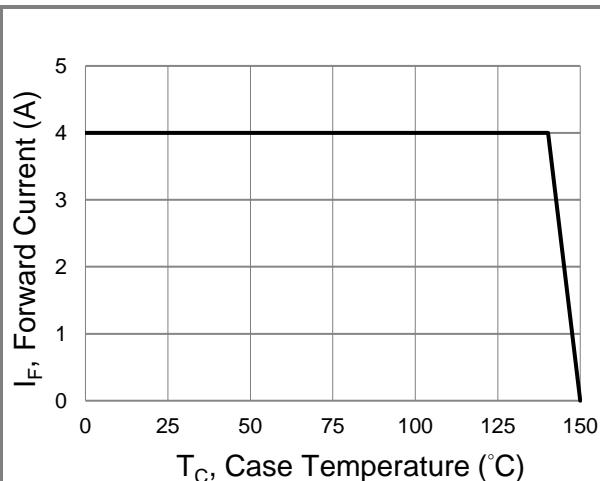
**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 2\text{ A}, T_J = 25^\circ\text{C}$	-	-	1.05	V
Reverse Current	$I_R$	$V_R = 1000\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	uA
		$V_R = 1000\text{ V}, T_J = 125^\circ\text{C}$	-	-	100	

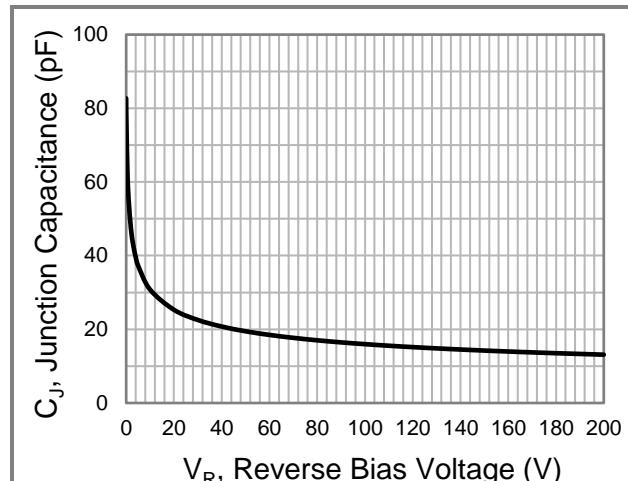
NOTES :

1. Device mounted on 10 cm \* 9.4 cm \* 2.6 cm Fin type heat sink .

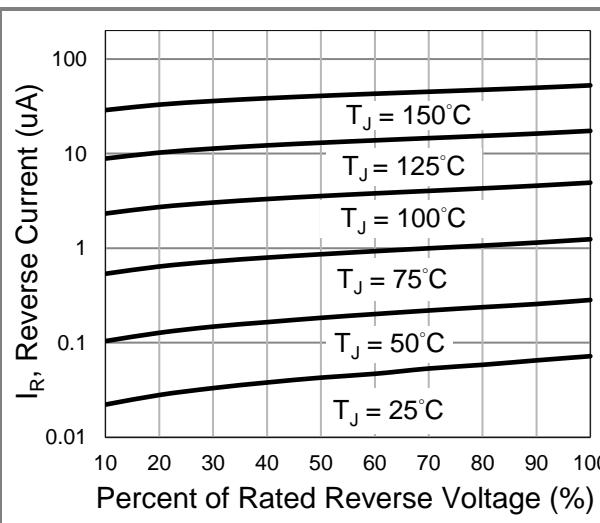
**TYPICAL CHARACTERISTIC CURVES**



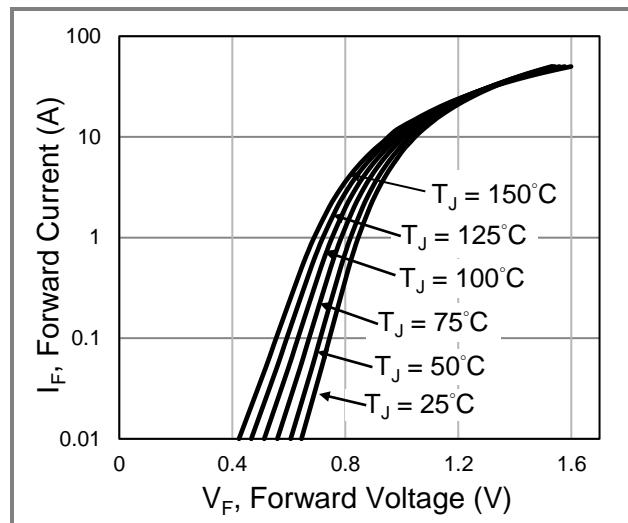
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
KBJ410	KBJ-2	20 pcs / tube	KBJ410

## Packaging Information

KBJ-2 Dimension		Unit: inch(mm)			
Dim	Unit (Inch)		Unit (mm)		
	Min	Max	Min	Max	
A	0.972	0.996	24.70	25.30	
B	0.579	0.602	14.70	15.30	
C	0.669	0.709	17.00	18.00	
D	0.287	0.303	7.30	7.70	
E	0.366	0.382	9.30	9.70	
F	0.130	0.146	3.30	3.70	
G	0.059	0.075	1.50	1.90	
H	0.035	0.043	0.90	1.10	
I	0.173	0.189	4.40	4.80	
J	Ø0.122	Ø0.142	Ø3.10	Ø3.60	
K	0.098	0.114	2.50	2.90	
L	0.014	0.031	0.55	0.80	
M	0.041	0.057	1.05	1.45	
N	0.067	0.083	1.70	2.10	
P	0.134	0.150	3.40	3.80	
Q	0.154	0.161	3.90	4.10	
R	C0.118		3.00		

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