

# KBJ1006G-KBJ1010G(LS)

## GLASS PASSIVATED BRIDGE RECTIFIER

**REVERSE VOLTAGE – 600 to 1000 Volts**  
**FORWARD CURRENT – 10 Amperes**

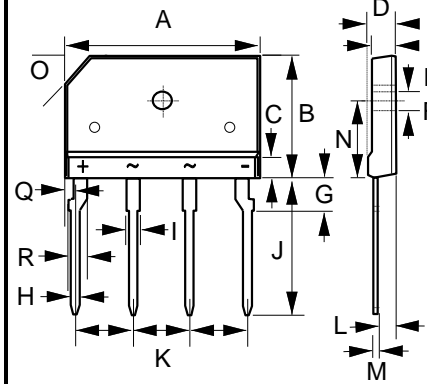
### FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique.
- The plastic material has UL flammability classification.
- UL recognized file # E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

### MECHANICAL DATA

- Package: KBJ
- Polarity indicator: Symbol molded on body
- Weight: 4.69 grams ( Approximate)
- Mounting position: Any

### KBJ



KBJ		
DIM	MIN	MAX
A	24.80	25.20
B	14.70	15.30
C	3.90	4.10
D	4.40	4.80
E	3.40	3.80
F	3.10Ø	3.40Ø
G	3.30	3.70
H	0.90	1.10
I	1.50	1.90
J	17.20	17.80
K	7.30	7.70
L	2.50	2.90
M	0.60	0.80
N	9.30	9.70
O	3.0 x 45°	
Q	1.05	1.45
R	1.70	2.10
All dimension in millimeter		

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

### ABSOLUTE RATINGS

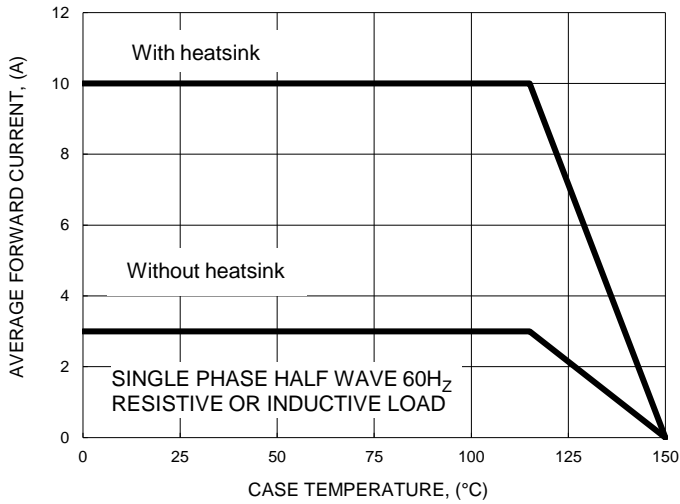
PARAMETER	SYMBOL	KBJ1006G	KBJ1008G	KBJ1010G	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	600	800	1000	V
Average rectified output current per device @ $T_C = 110^\circ\text{C}$	$I_{(AV)}$	10 3.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ $T_J = 25^\circ\text{C}$	$I_{FSM}$	170			A
Maximum forward Voltage at 5.0A DC	$V_F$	1.1			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$	$I_R$	5.0 500			$\mu\text{A}$
$I^2t$ Rating for fusing ( $t = 8.3\text{ms}$ )	$I^2t$	120			$\text{A}^2\text{S}$
Typical Junction Capacitance per element (Note 4)	$C_J$	45			pF
Typical Thermal Resistance (Note 5)	$R\theta_{JC}$	2.0			$^\circ\text{C} / \text{W}$
Operating and temperature range	$T_J$	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150			$^\circ\text{C}$

### Note:

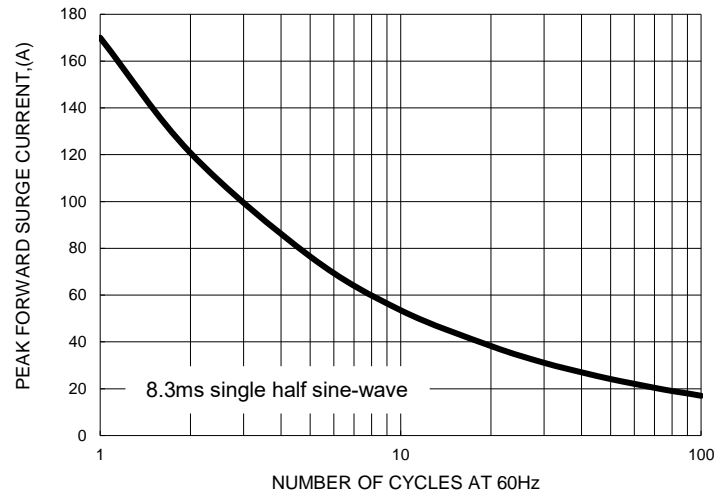
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal resistance junction to case in accordance with JESD-51. Unit mounted on 150mm \* 150mm \* 1.6mm Cu plate heatsink.

**RATING AND CHARACTERISTIC CURVES**  
**KBJ1006G-KBJ1010G**

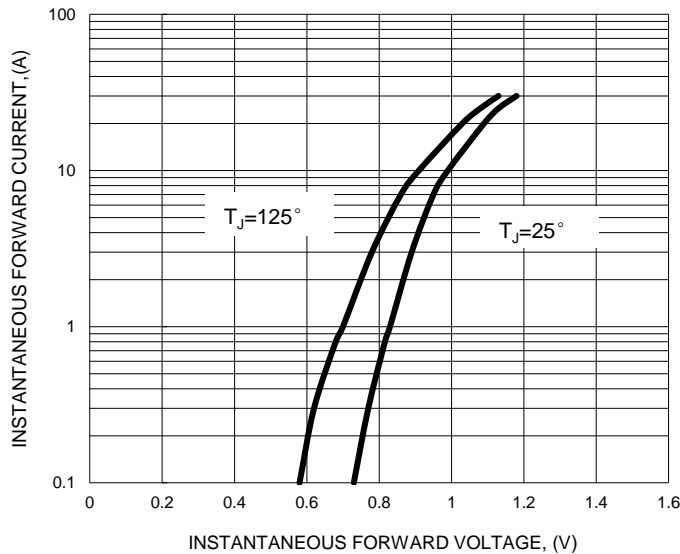
**FIG.1- FORWARD CURRENT DERATING CURVE**



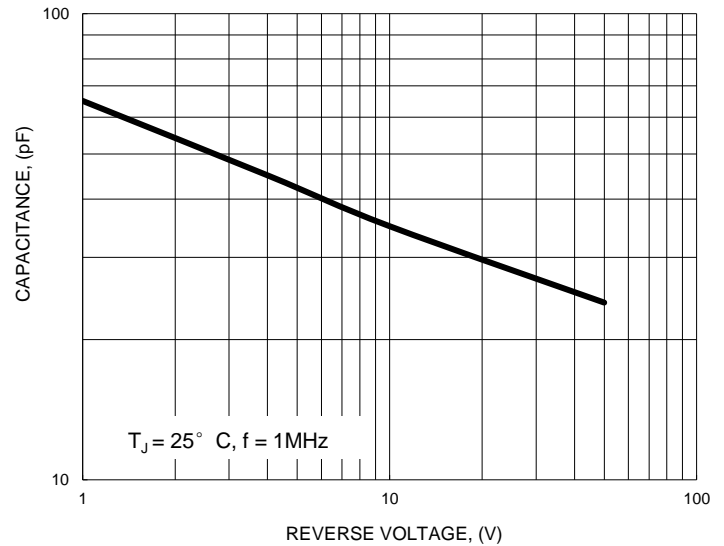
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



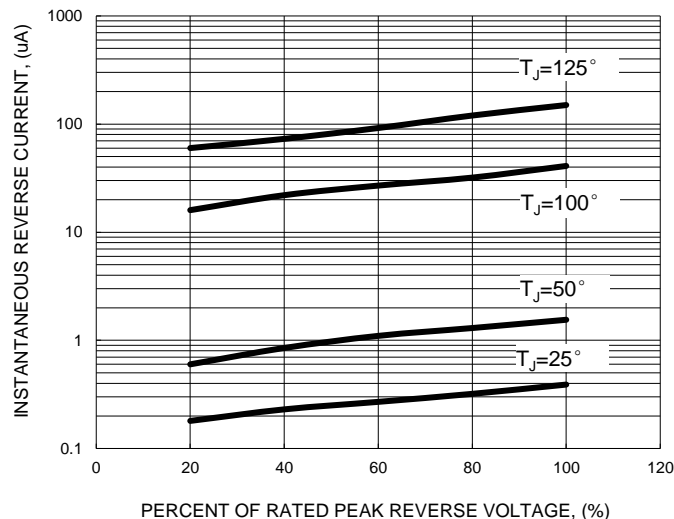
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



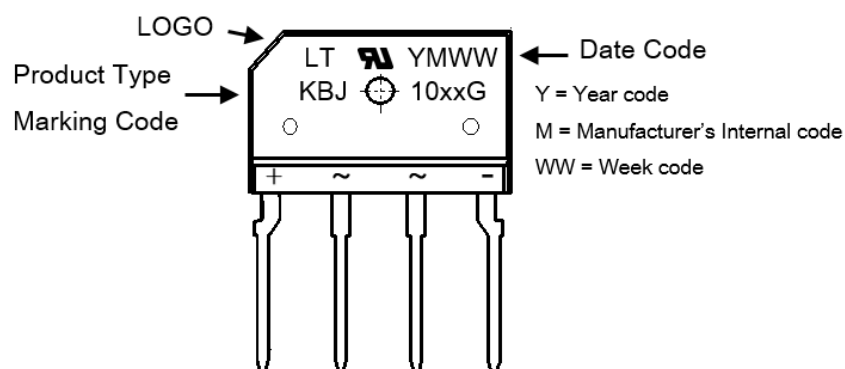
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



## Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
KBJ1006G_HF	KBJ	20pcs	Tube
KBJ1008G_HF	KBJ	20pcs	Tube
KBJ1010G_HF	KBJ	20pcs	Tube

## Marking Information :



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