


## Product Summary

V <sub>RRM</sub> (V)		I <sub>F</sub> (A)	V <sub>F</sub> Max (V) @ I <sub>F</sub> = 10A	I <sub>R</sub> Max (μA)
KBJ2006G	600	20	1.1	5
KBJ2008G	800			

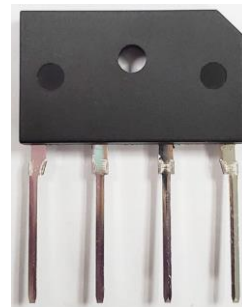
## Mechanical Data

- Package: KBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 
- Polarity Indicator: As Marked on The Body
- Weight: 4.6 grams (Approximate)
- Mounting Position: Any

## Features

- Glass Passivated Die Construction
- Rating to 1000V PRV
- Ideal for Printed Circuit Board
- Reliable Low-Cost Construction Utilizing Molded Plastic Technique
- UL Recognized File # E94661
- Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Halogen and Antimony Free. "Green" Device (Note 3)**
- For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative.**

KBJ

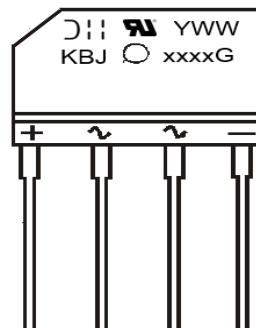


## Ordering Information (Note 4)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
KBJ2006G	KBJ	20pcs	Tube
KBJ2008G	KBJ	20pcs	Tube

- Notes:
- EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  - 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.
  - Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  - For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

## Marking Information



DII = Manufacturer's Marking  
 KBJxxxxG = Product Type Marking Code  
 YWW = Date Code Marking  
 Y = Year (ex: 5 = 2025)  
 WW = Week (01 to 53)

**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	KBJ2006G	KBJ2008G	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	800	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	600	800	V
Average Rectified Output Current @T <sub>C</sub> = +110°C	I <sub>F(AV)</sub>	20 3.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave T <sub>J</sub> = +25°C	I <sub>FSM</sub>	200		A
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	I <sup>2</sup> t	166		A <sup>2</sup> s
Mounting Torque (Recommended Torque: 0.5 N.m)	TOR	0.8		N.m
Operating Temperature Range	T <sub>J</sub>	-55 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150		°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Test Condition	Symbol	Max	Unit
Forward Voltage	I <sub>F</sub> = 10A    T <sub>J</sub> = +25°C	V <sub>F</sub>	1.1	V
Leakage Current	V <sub>R</sub> at Rated    T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C	I <sub>R</sub>	5.0 500	μA
Typical Junction Capacitance (Note 5)		C <sub>J</sub>	70	pF

**Thermal Characteristics**

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	R <sub>θJC</sub>	0.8	°C/W

- Notes:
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  6. Device mounted on 250mm\*250mm\*20mm aluminum plate heatsink, T<sub>A</sub> = +25°C.

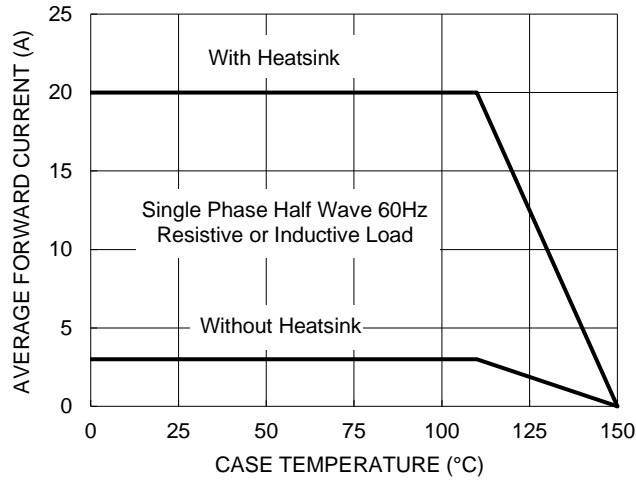


Figure 1. Forward Current Derating Curve

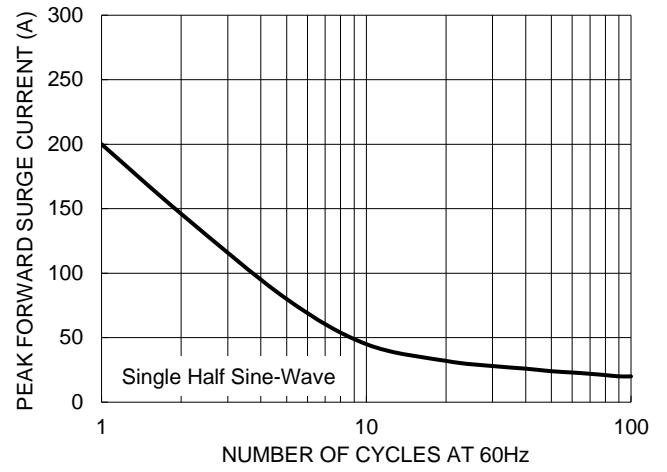


Figure 2. Maximum Non-Repetitive Surge Current

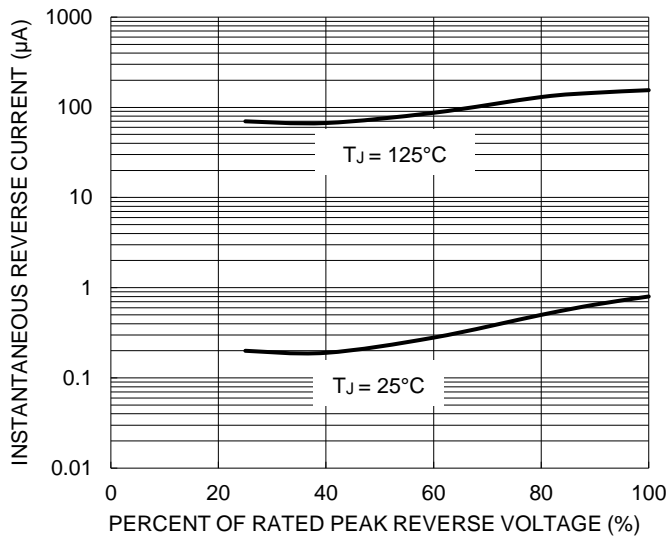


Figure 3. Typical Reverse Characteristics

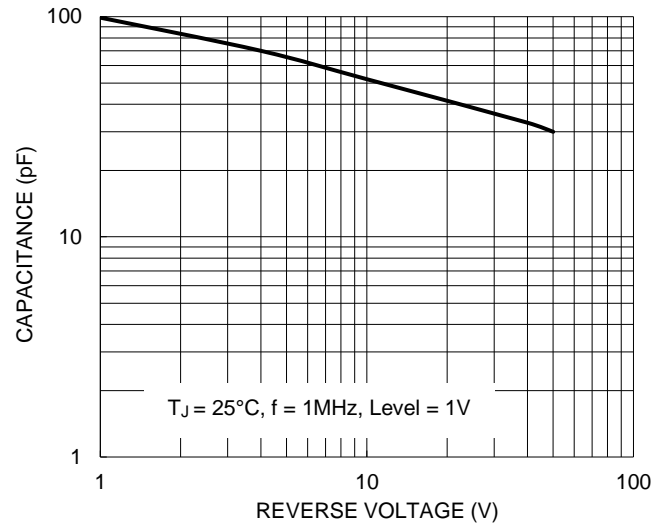


Figure 4. Typical Junction Capacitance

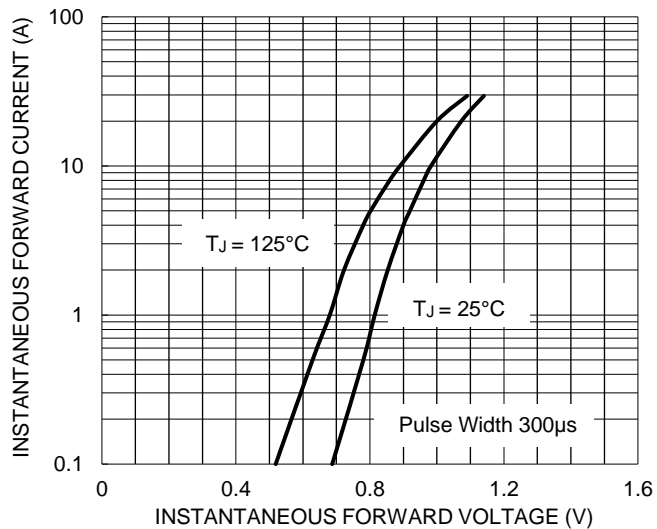


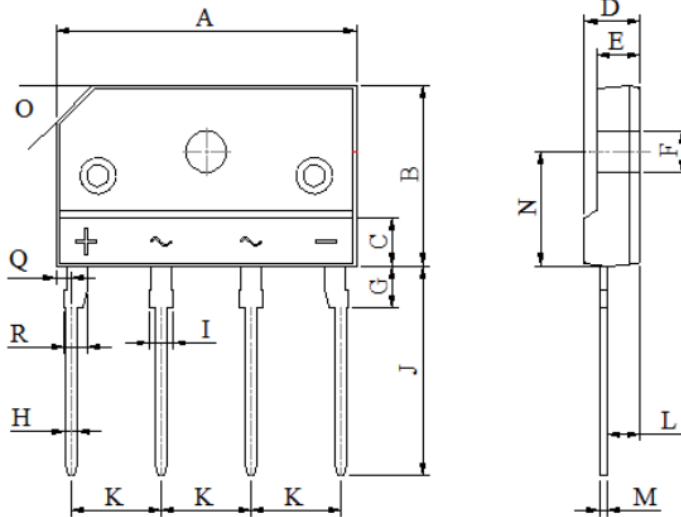
Figure 5. Typical Forward Characteristics

## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

KBJ

Unit: mm



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	3.0x45°	
Q	1.05	1.45
R	1.70	2.10
All Dimensions in millimeter		

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