

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 10A	I _R Max (μA)
KBJ2006G	600		
KBJ2008G	800	20	1.1

Mechanical Data

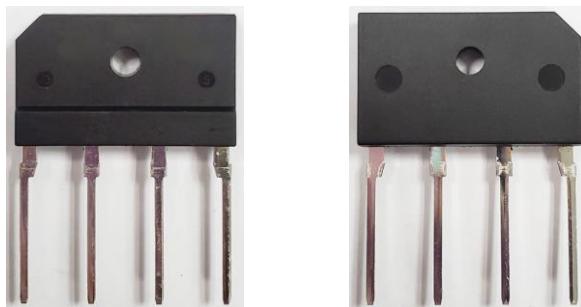
- Package: KBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity Indicator: As Marked on The Body
- Weight: 4.6 grams (Approximate)
- Mounting Position: Any

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](#) or your local Diodes representative.

<https://www.diodes.com/quality/product-definitions/>

KBJ



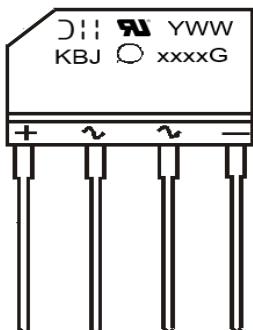
Ordering Information (Note 4)

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

Notes:

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. 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 (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)

Characteristic	Symbol	KBJ2006G	KBJ2008G	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	V
Maximum DC Blocking Voltage	V_{DC}	600	800	V
Average Rectified Output Current @ $T_c = +110^\circ\text{C}$	$I_{F(AV)}$	20 3.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave $T_J = +25^\circ\text{C}$	I_{FSM}	200		A
I^2t Rating for Fusing (t = 8.3ms)	I^2t	166		A^2s
Mounting Torque (Recommended Torque: 0.5 N.m)	T_{OR}	0.8		N.m
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150		$^\circ\text{C}$

Electrical Characteristics (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)

Characteristic	Test Condition	Symbol	Max	Unit
Forward Voltage	$I_F = 10\text{A}$ $T_J = +25^\circ\text{C}$	V_F	1.1	V
Leakage Current	V_R at Rated $T_J = +25^\circ\text{C}$ $T_J = +125^\circ\text{C}$	I_R	5.0 500	μA
Typical Junction Capacitance (Note 5)		C_J	70	pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$	0.8	$^\circ\text{C}/\text{W}$

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Device mounted on 250mm*250mm*20mm aluminum plate heatsink, $T_A = +25^\circ\text{C}$.

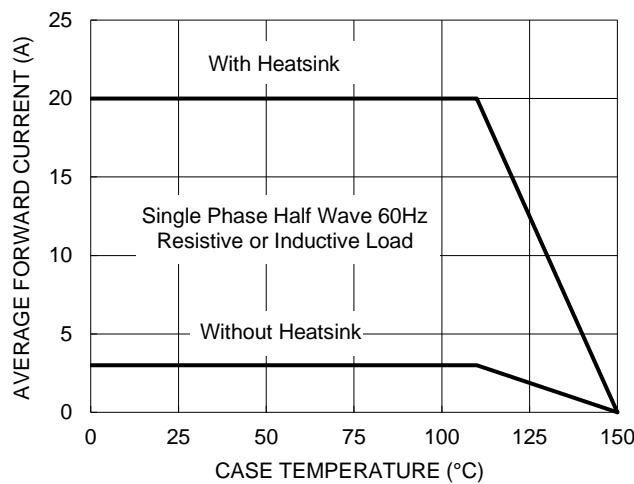


Figure 1. Forward Current Derating Curve

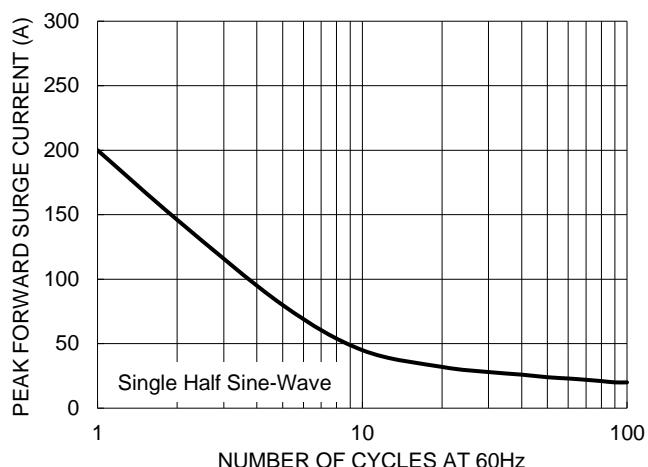


Figure 2. Maximum Non-Repetitive Surge Current

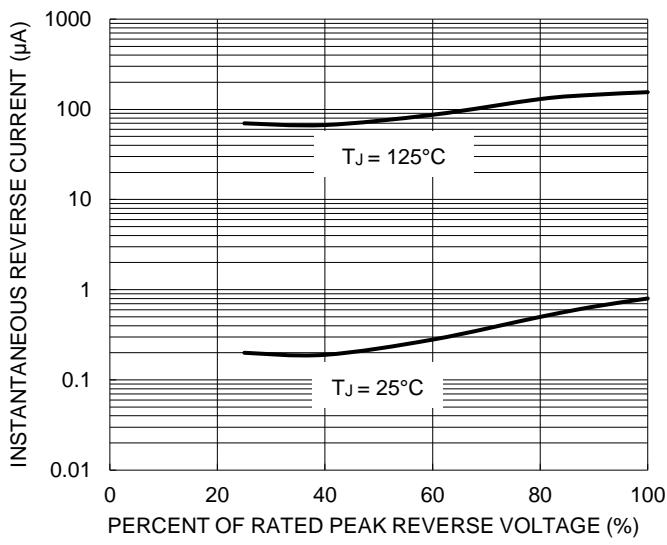


Figure 3. Typical Reverse Characteristics

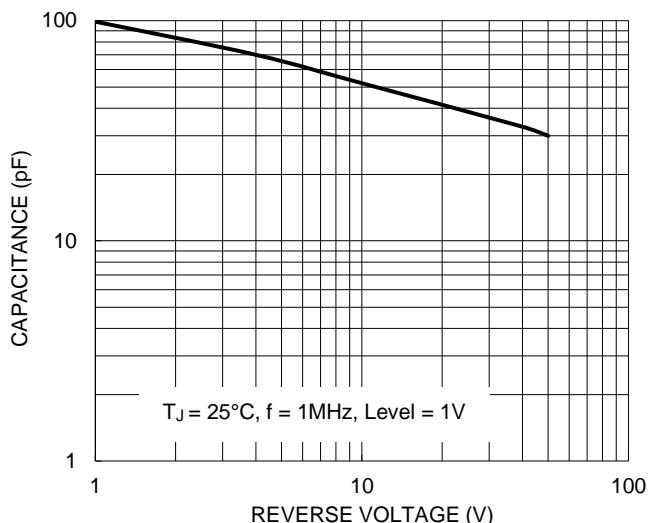


Figure 4. Typical Junction Capacitance

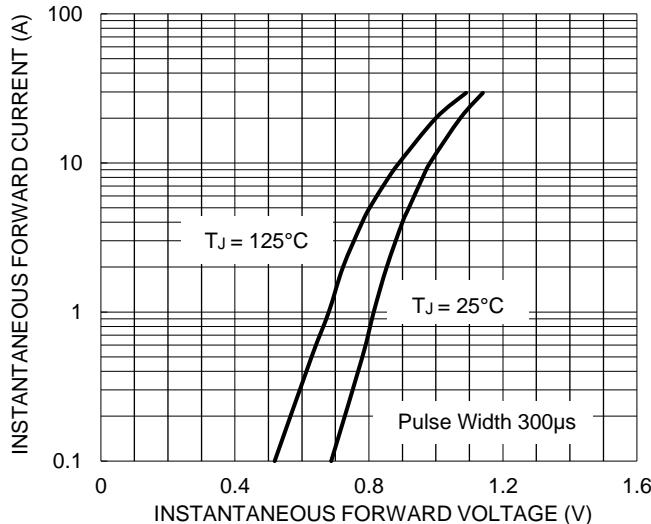


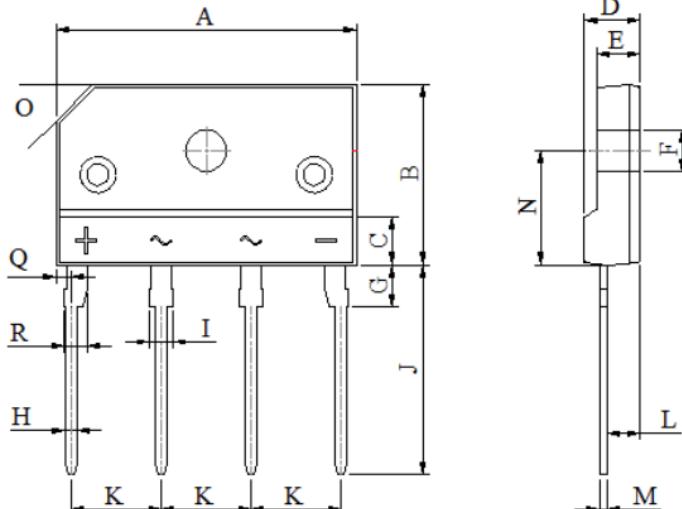
Figure 5. Typical Forward Characteristics

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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