

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F =17.5A	I _R Max (μA)
600, 800, 1000	35	1.05	10

Mechanical Data

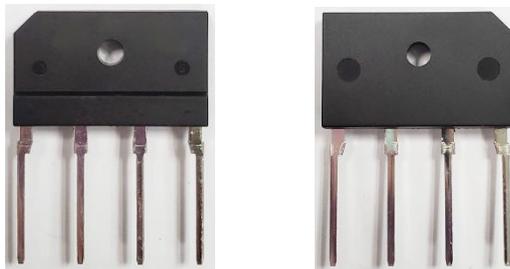
- Package: KBJ
- Package Material: Molded Plastic, "Green" Molding Compound
UL Flammability Classification Rating 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per
MIL-STD-202, Method 208
- Weight: 4.6 grams (Approximate)
- Mounting Position: Any

Features

- Glass Passivated Die Construction
- 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](mailto:contact@diodes.com) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

Applications

- TV powers
- Game powers
- PC powers

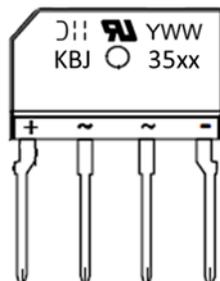


Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
KBJ3506	KBJ	20pcs	Tube
KBJ3508	KBJ	20pcs	Tube
KBJ3510	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



KBJ35xx = Product Type Marking Code
 = Manufacturer's Code Marking
 YWW = Date Code Marking
 Y = Last Digit of Year (ex: 3 = 2023)
 WW = Week Code (01 to 53)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	KBJ3506	KBJ3508	KBJ3510	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	800	1000	V
Average Rectified Output Current	I _{F(AV)}	With Heatsink @T _C = +95°C		35	A
		Without Heatsink @T _C = +125°C		3.5	
Peak Forward Surge Current 8.3ms Single Half Sine Wave	I _{FSM}	T _J = +25°C		380	A
		T _J = +125°C		330	
I ² t Rating for Fusing (t = 8.3ms)	I ² t			599	A ² s
Operating Temperature Range	T _J			-55 to +150	°C
Storage Temperature Range	T _{STG}			-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Test Condition	Symbol	Value	Unit	
Maximum Forward Voltage	I _F = 17.5A T _J = +25°C	V _F	1.05	V	
Maximum Leakage Current	V _R at Rated	I _R	T _J = +25°C	10.0	μA
			T _J = +125°C	500	
Typical Junction Capacitance (Note 5)		C _T	165	pF	

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Without Heatsink)	R _{θJC}	5	°C/W
	R _{θJL}	8	
	R _{θJA}	28	
Typical Thermal Resistance (Note 6)	R _{θJC}	1	°C/W
	R _{θJL}	2	
	R _{θJA}	3	

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance junction to ambient, case and lead. Unit mounted on cooler -20°C rated current.

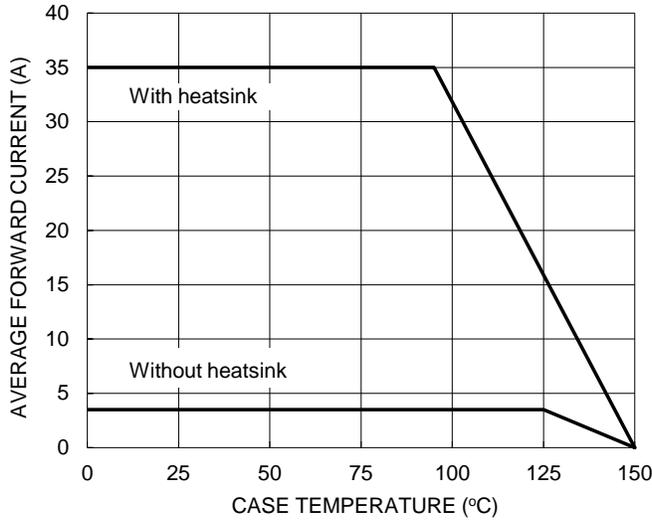


Figure 1. Forward Current Derating Curve

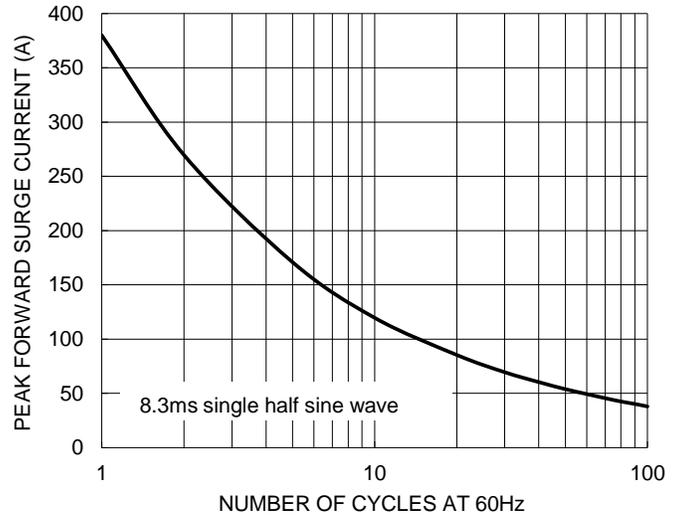


Figure 2. Maximum Non-Repetitive Surge Current

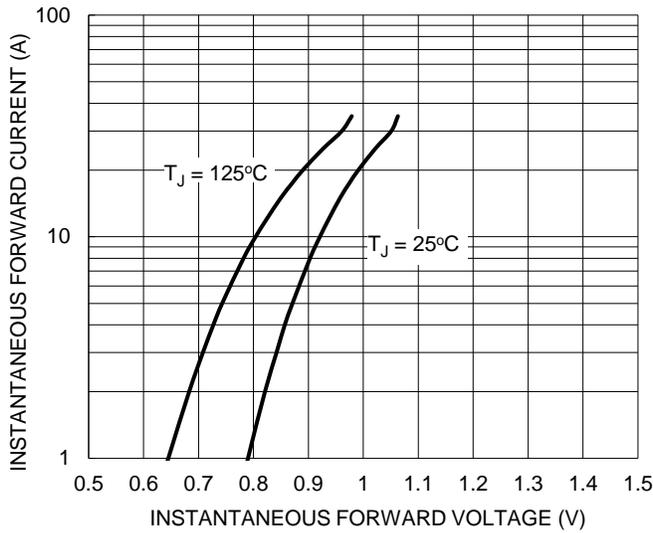


Figure 3. Typical Forward Characteristics

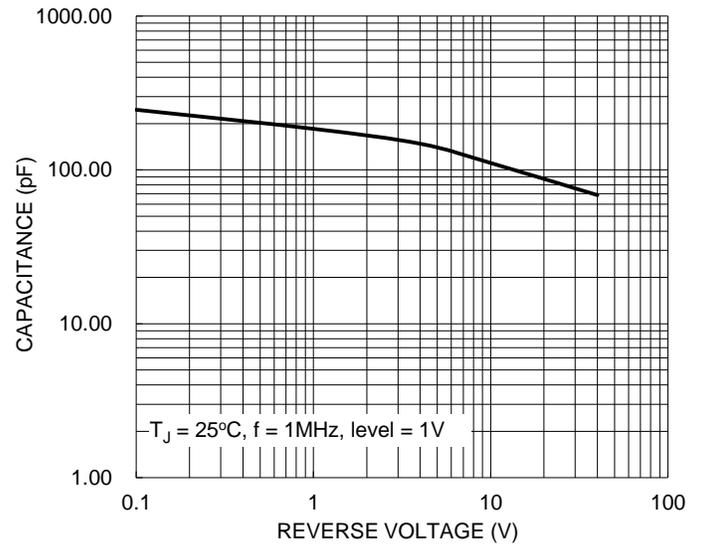


Figure 4. Typical Junction Capacitance

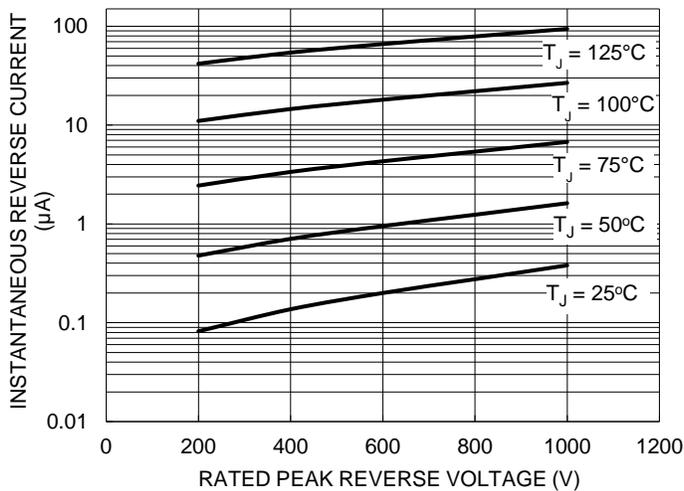
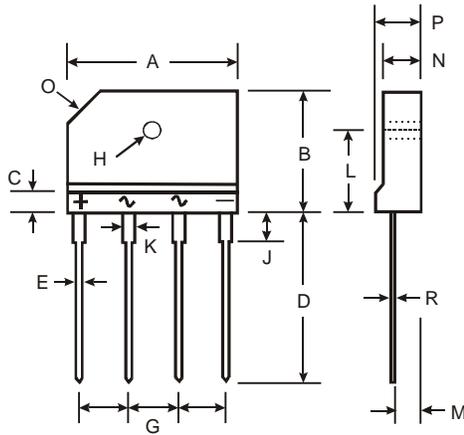


Figure 5. Typical Reverse Characteristics

Package Outline Dimensions

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

KBJ



KBJ		
Dim	Min	Max
A	24.80	25.20
B	14.70	15.30
C	3.90	4.10
D	17.20	17.80
E	0.90	1.10
G	7.30	7.70
H	3.10 \varnothing	3.40 \varnothing
J	3.30	3.70
K	1.50	1.90
L	9.30	9.70
M	2.50	2.90
N	3.40	3.80
O	3.0 x 45°	
P	4.40	4.80
R	0.60	0.80
All Dimensions in mm		

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