35A STANDARD RECOVERY BRIDGE RECTIFIER

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

Features

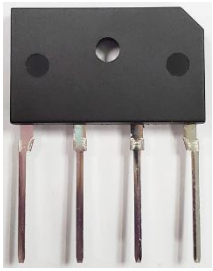
- Glass Passivated Die Construction
- Ideal for Printed Circuit Board
- Reliable Low-Cost Construction Utilizing Molded Plastic Technique
- UL Certification Is Under Applying
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive 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/**

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 (e3)
- Weight: 4.6 grams (Approximate)
- Mounting Position: Any

Applications

- TV power
- Game power
- PC power

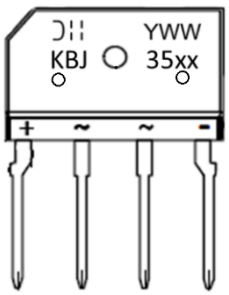


Ordering Information (Note 4)

Orderable 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: 5 = 2025)
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	With Heatsink @T_C =+95°C Without Heatsink @T_C = +125°C	$I_{F(AV)}$	35 3.5			A
Peak Forward Surge Current 8.3ms Single Half Sine Wave	T_J = +25°C T_J = +125°C	I_{FSM}	380 330			A
I^2t Rating for Fusing (t = 8.3ms)		I^2t	599			A^2s
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	T_J = +25°C T_J = +125°C	I_R	10.0 500	µA
Typical Junction Capacitance (Note 5)			C_T	165	pF

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Without Heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	5 8 28	°C/W
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	1 2 3	°C/W

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.

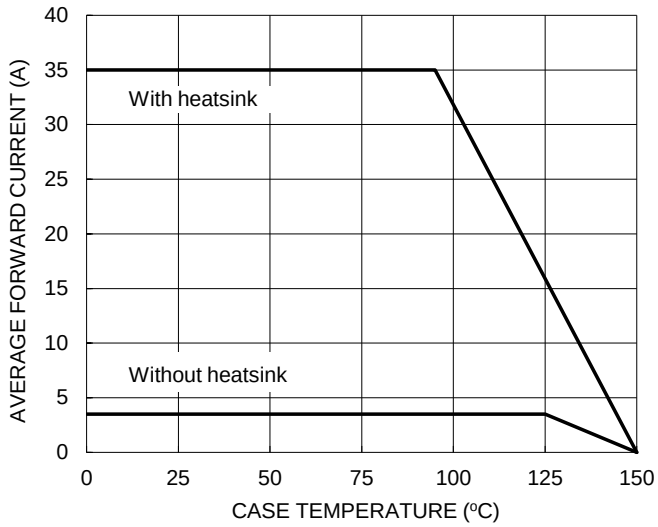


Figure 1. Forward Current Derating Curve

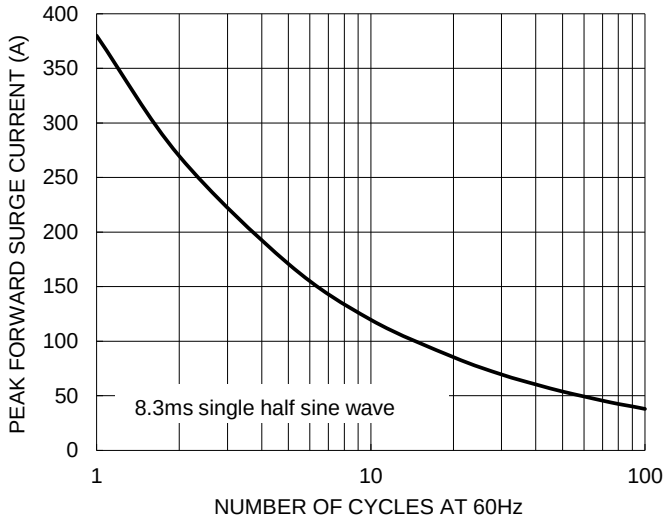


Figure 2. Maximum Non-Repetitive Surge Current

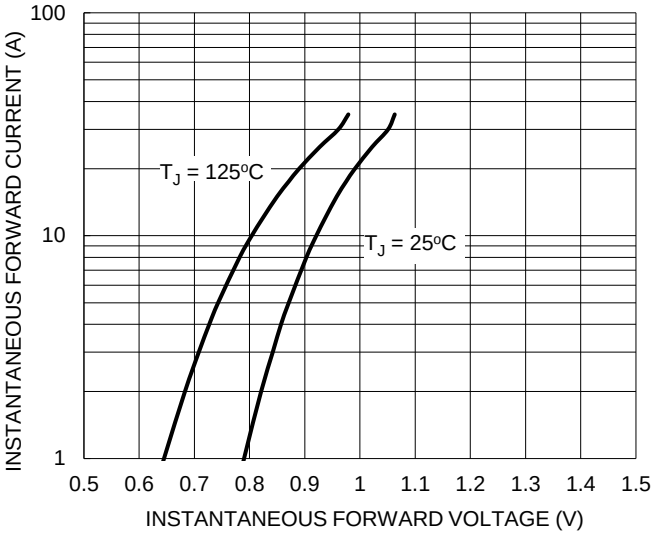


Figure 3. Typical Forward Characteristics

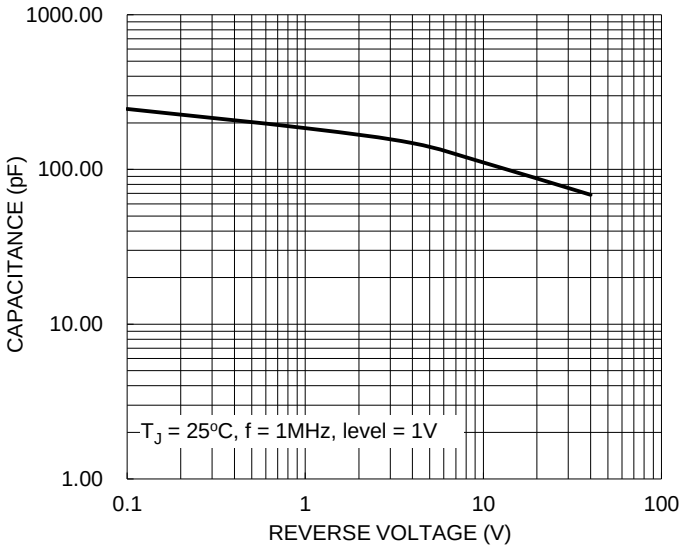


Figure 4. Typical Junction Capacitance

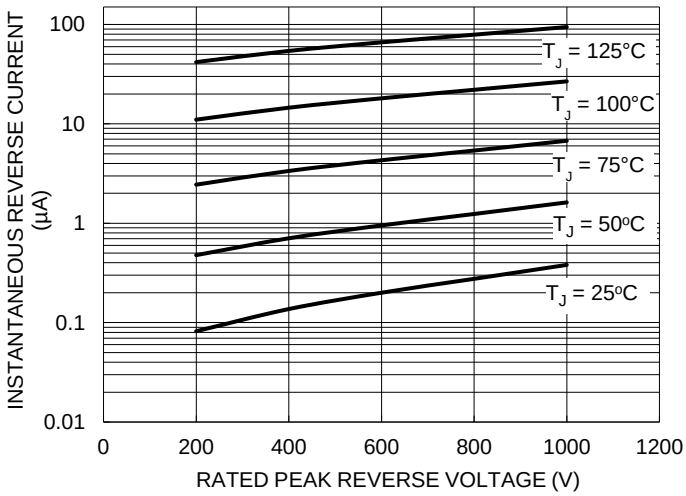
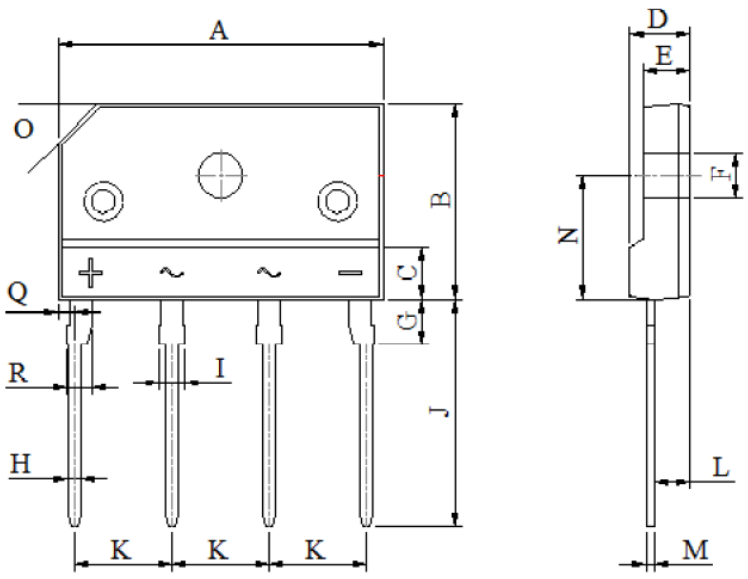


Figure 5. Typical Reverse Characteristics

Package Outline Dimensions

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

KBJ **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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