KBJ15L06

15A LOW VF BRIDGE RECTIFIER

Product Summary

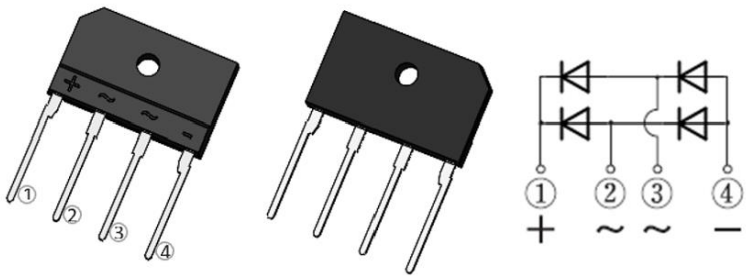
V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F Max (V) @ I_F = 7.5A	I_R Max (µA)
600	15	0.9	10

Features

- Glass Passivated Die Construction
- Low-Forward Voltage Drop
- Ideal for Printed Circuit Board
- Reliable Low-Cost Construction Utilizing Molded Plastic Technique
- High Case Dielectric Strength of 2500V_{RMS}
- UL Recognized File #E95060
- **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: 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: 4.2 grams (Approximate)
- Mounting Position: Any

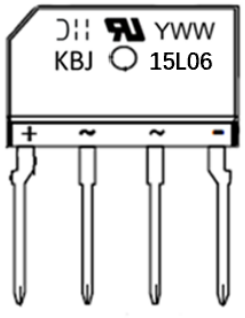


Ordering Information (Note 4)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
KBJ15L06-TU	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



KBJ15L06 = 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)

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

Characteristic	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Rectified Output Current @T_C = +125°C With Heatsink Without Heatsink	$I_{F(AV)}$	15 3.9	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave T_J = +25°C	I_{FSM}	200	A
I^2t Rating for Fusing (t = 8.3ms)	I^2t	166	A^2s
Mounting Torque (Recommended Torque: 0.5N·m)	TOR	0.8	N·m
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	Max	Unit
Forward Voltage	I_F = 7.5A T_J = +25°C	V_F	0.90	V
Leakage Current	V_R = 600V T_J = +25°C T_J = +125°C	I_R	10 500	μA
Typical Junction Capacitance (Note 5)		C_T	120	pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Without Heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	6 9 28	°C/W
Typical Thermal Resistance (Notes 6 & 7)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	1.5 2.5 6	°C/W

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
7. Device mounted on 200mm × 200mm × 5mm Al plate heatsink.

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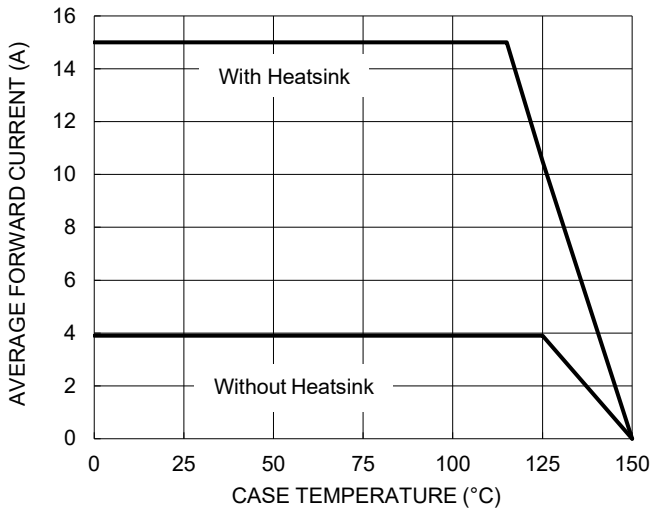


Figure 1. Forward Current Derating Curve

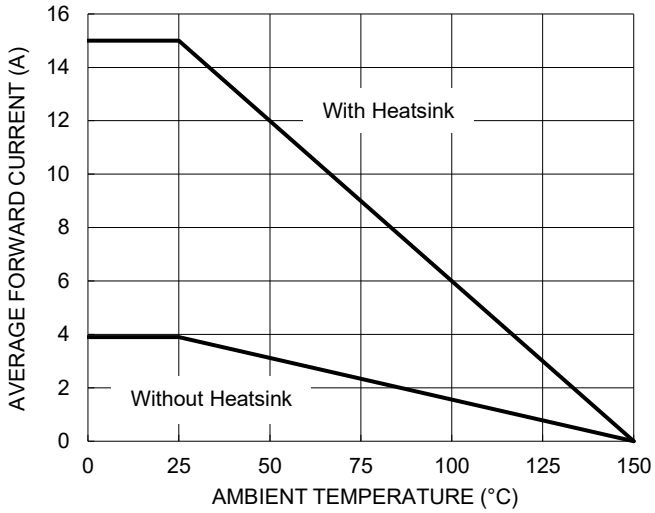


Figure 2. Forward Current Derating Curve

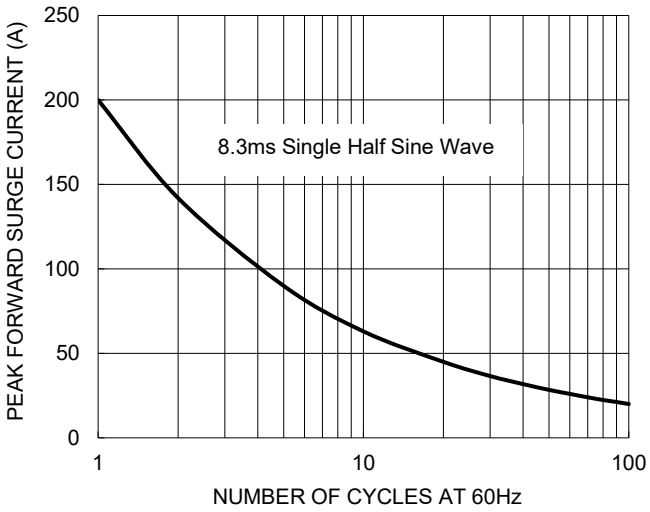


Figure 3. Maximum Non-Repetitive Surge Current

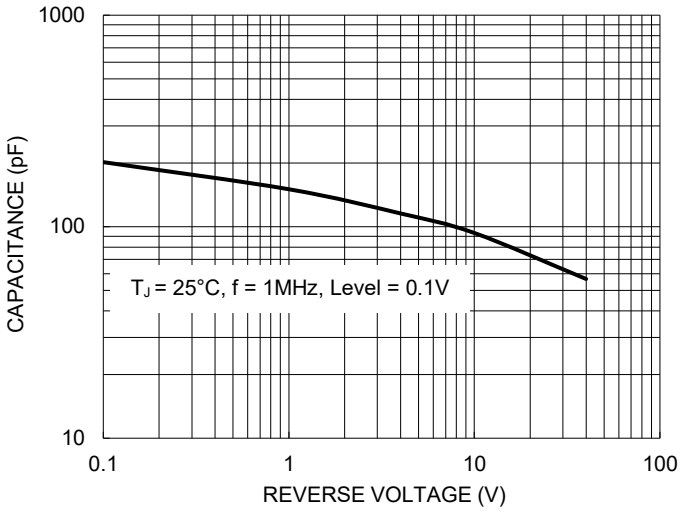


Figure 4. Typical Junction Capacitance

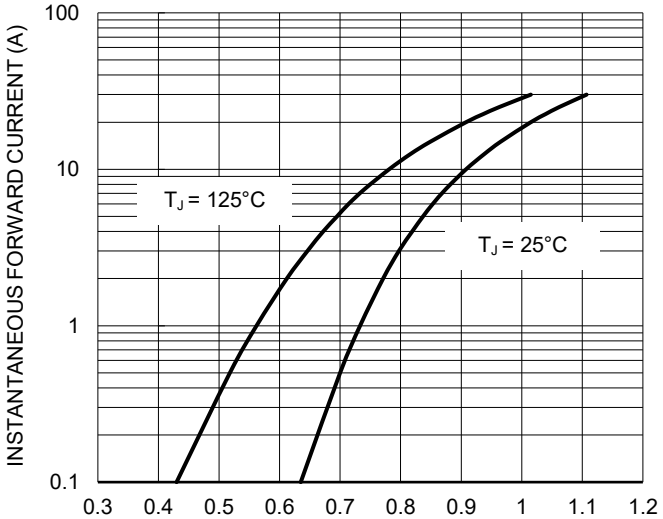


Figure 5. Typical Forward Characteristics

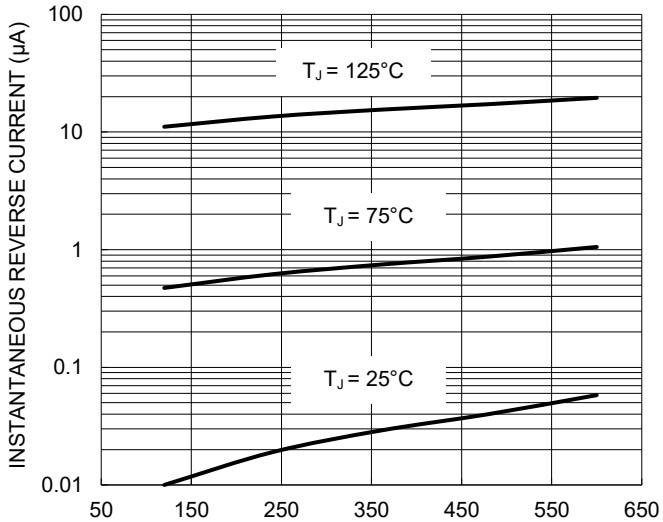


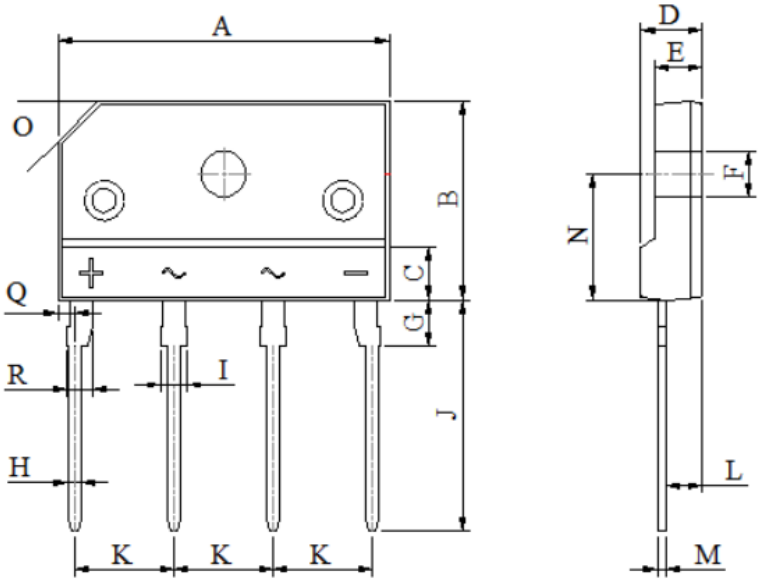
Figure 6. Typical Reverse Characteristics

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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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