

## Product Summary

$V_{RRM}$ (V)	$I_F$ (A)	$V_F$ Max (V) @ $I_F = 5A$	$I_R$ Max ( $\mu A$ )
600, 800, 1000	10	1.0	10

## Mechanical Data

- Package: KBJL
- 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: 2.4 grams (Approximate)

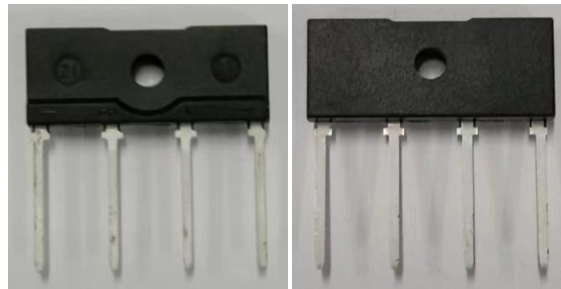
## Features

- Glass Passivation Die Construction
- Ideal for Printed Circuit Board
- High Surge Current Capability
- 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](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative.**

## Applications

- TV powers
- Game powers
- PC powers

KBJL

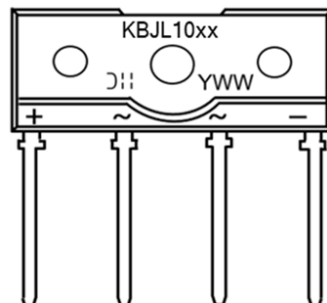


## Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
KBJL1006-TU	KBJL	20pcs	Tube
KBJL1008-TU	KBJL	20pcs	Tube
KBJL1010-TU	KBJL	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 Code Marking  
 KBJL10xx = Product Type Marking Code  
 YWW = Date Code Marking  
 Y = Year (ex: 3 = 2023)  
 WW = Week (01 to 53)

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

Characteristic	Symbol	KBJL1006	KBJL1008	KBJL1010	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	800	1000	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	600	800	1000	V
Average Rectified Output Current With Heatsink @T <sub>C</sub> = +120°C Without Heatsink @ T <sub>C</sub> = +130°C	I <sub>F(AV)</sub>	10 2.8			A
Peak Forward Surge Current 8.3ms Single Half Sine Wave T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C (Note 5)	I <sub>FSM</sub>	150 120			A
Peak Forward Surge Current 1.0ms Single Half Sine Wave T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C (Note 5)	I <sub>FSM</sub>	300 240			A
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	I <sup>2</sup> t	93.3			A <sup>2</sup> s
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	Value	Unit
Maximum Forward Voltage	I <sub>F</sub> = 5A T <sub>J</sub> = +25°C	V <sub>F</sub>	1.0	V
Maximum Leakage Current	V <sub>R</sub> at Rated T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C	I <sub>R</sub>	10 500	μA
Typical Junction Capacitance (Note 6)		C <sub>T</sub>	48	pF

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Without Heatsink)	R <sub>θJC</sub>	4	°C/W
	R <sub>θJL</sub>	6	
	R <sub>θJA</sub>	19	
Typical Thermal Resistance (Note 7)	R <sub>θJC</sub>	2	°C/W
	R <sub>θJL</sub>	3	
	R <sub>θJA</sub>	7	

- Notes:
5. Perform static test after the temperature of oven is steady 20 minutes.
  6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  7. Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 35mm \* 35mm \*1.7mm CU heatsink.

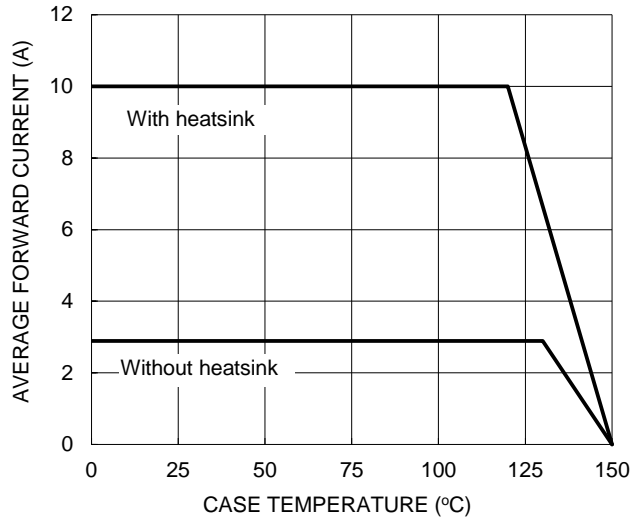


Figure 1. Forward Current Derating Curve

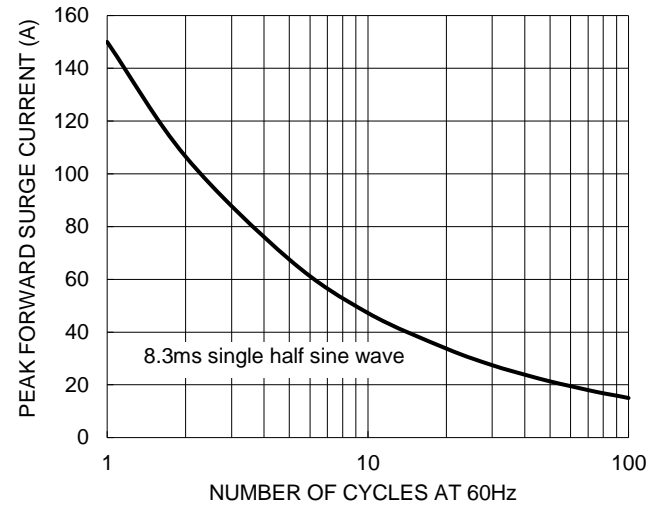


Figure 2. Maximum Non-Repetitive Surge Current

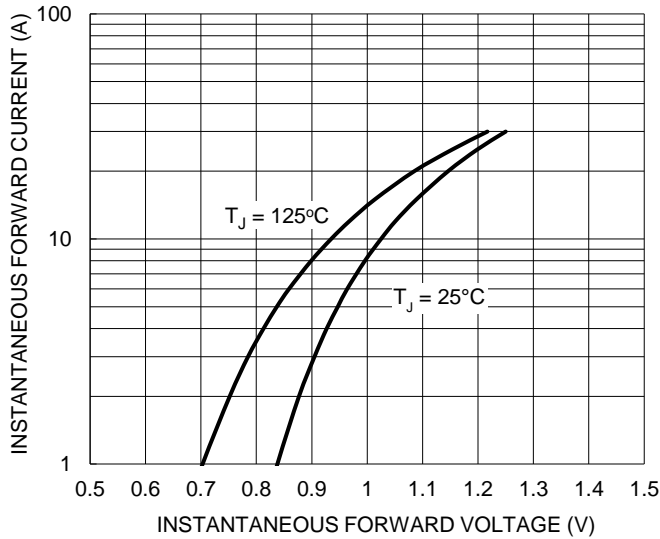


Figure 3. Typical Forward Characteristics

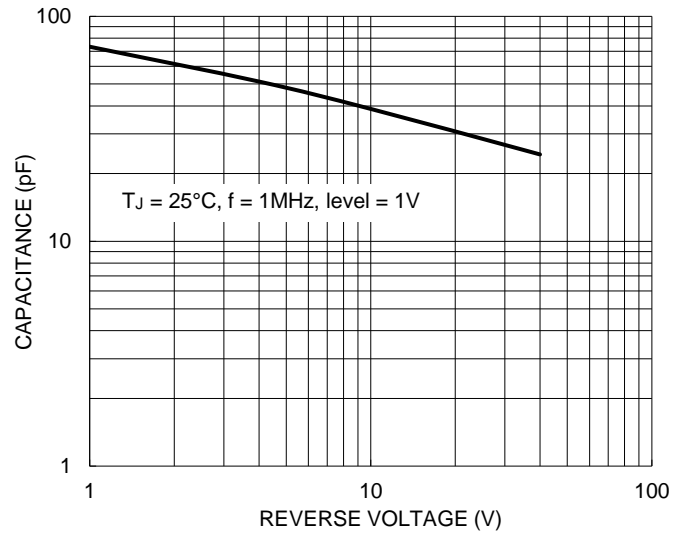


Figure 4. Typical Junction Capacitance

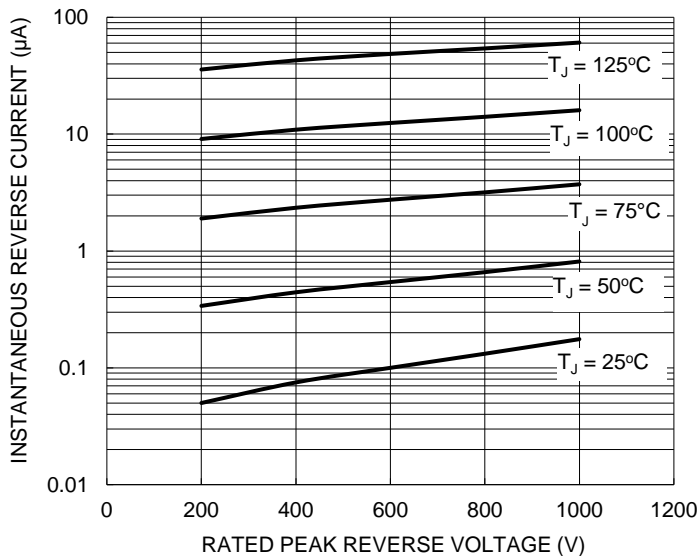
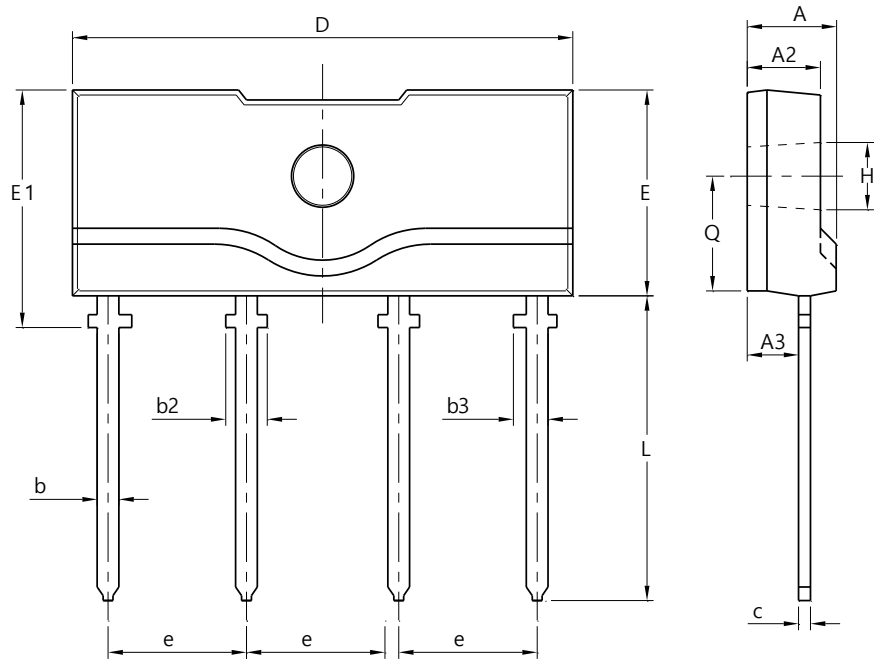


Figure 5. Typical Reverse Characteristics

# Package Outline Dimensions

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

## KBJL



KBJL		
Dim	Min	Max
A	3.90	4.50
A2	2.90	3.90
A3	2.0	2.60
b	0.90	1.10
b2	2.10	2.30
b3	--	1.75
c	0.40	0.60
D	24.70	25.30
E	10.0	10.60
E1	11.40	12.00
e	7.30	7.70
H	3.10	3.40
L	14.60	15.20
Q	5.40	6.00
All Dimensions in mm		

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