



### 10A STANDARD RECOVERY BRIDGE RECTIFIER

### **Product Summary**

VRRM (V)	IF (A)	V <sub>F</sub> Max (V) @ I <sub>F</sub> = 5.0A	I <sub>R</sub> Max (µA)
600, 800, 1000	10	1.1	5

#### **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 <a>®3</a>
- Polarity Indicator: As Marked on The Body
- Weight: 4.6 grams (Approximate)
- Mounting Position: Any



- 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-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative. <a href="https://www.diodes.com/quality/product-definitions/">https://www.diodes.com/quality/product-definitions/</a>





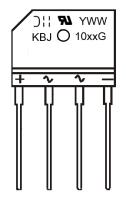
## **Ordering Information** (Note 4)

Part Number	Qualification	Package	Packing		
	Qualification	Fackage	Qty.	Carrier	
KBJ1006G-TU	Commercial	KBJ	20	Tube	
KBJ1008G-TU	Commercial	KBJ	20	Tube	
KBJ1010G-TU	Commercial	KBJ	20	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**



KBJ10xxG = Product Type Marking Code

| | = Manufacturer's Code Marking

| YWW = Date Code Marking
| Y = Last Digit of Year (ex: 1 = 2021)

| WW = Week Code (01 to 53)



# **Maximum Ratings** (@ $T_A = +25^{\circ}C$ , unless otherwise specified.)

Characteristic	Symbol	KBJ1006G	KBJ1008G	KBJ1010G	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	600	800	1000	V
Maximum RMS Voltage	VRMS	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	600	800	1000	V
Average Rectified Output Current With Heatsink  @T <sub>C</sub> = +110°C Without Heatsink	I <sub>F(AV)</sub>		10 3.0		Α
Peak Forward Surge Current 8.3ms Single Half Sine-Wave TJ = +25°C	IFSM		170		А
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	l <sup>2</sup> t		120		A <sup>2</sup> s
Operating Temperature Range	TJ		-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 C	Condition	Symbol	Max	Unit
Forward Voltage	I <sub>F</sub> = 5.0A	T <sub>J</sub> = +25°C	VF	1.1	V
Leakage Current	V <sub>R</sub> at Rated	T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C	I <sub>R</sub>	5.0 500	μΑ
Typical Junction Capacitance (Note 5)			СJ	45	pF

# **Thermal Characteristics**

Characteristic	Symbol	Тур.	Unit
Typical Thermal Resistance (Note 6)	R <sub>θ</sub> JC	2.0	°C/W

Notes:

<sup>5.</sup> Measured at 1.0MHz and applied reverse voltage of 4.0V DC. 6. Unit mounted on 150mm  $^{\star}$  150mm  $^{\star}$  1.6mm cu plate heatsink.





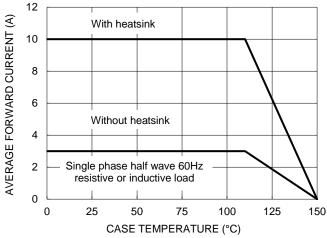


Figure 1. Forward Current Derating Curve

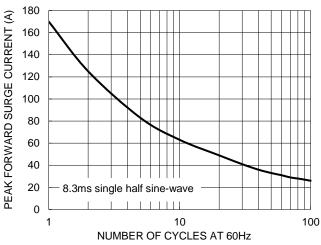


Figure 2. Maximum Non-Repetitive Surge Current

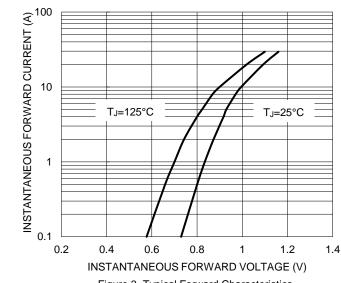


Figure 3. Typical Forward Characteristics

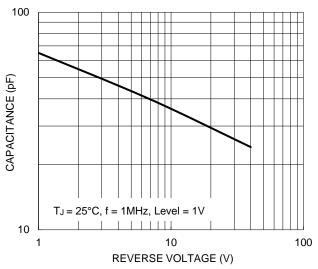


Figure 4. Typical Junction Capacitance

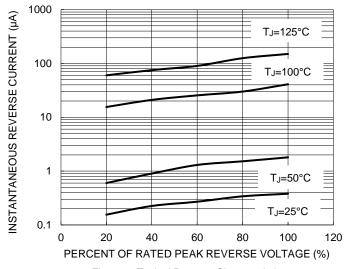


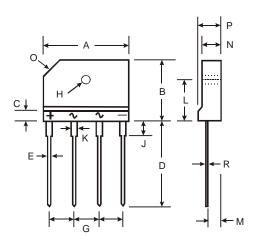
Figure 5. Typical Reverse Characteristics



# **Package Outline Dimensions**

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

#### KBJ



KBJ				
Dim	Min	Max		
Α	24.80	25.20		
В	14.70	15.30		
С	3.90	4.10		
D	17.20	17.80		
E	0.90	1.10		
G	7.30	7.70		
Н	3.10∅	3.40∅		
J	3.30	3.70		
K	1.50	1.90		
١	9.30	9.70		
М	2.50	2.90		
N	3.40	3.80		
0	3.0 x 45°			
Р	4.40	4.80		
R	0.60	0.80		
All Dimensions in mm				



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