



6A STANDARD RECOVERY BRIDGE RECTIFIER

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 3A	I _R Max (μA)
600, 800, 1000	6	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 (©3)
- 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 or your local Diodes representative. https://www.diodes.com/quality/product-definitions/

Applications

- TV powers
- Game powers
- PC powers





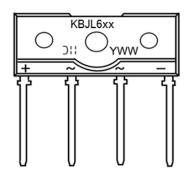
Ordering Information (Note 4)

Dout Number	Package	Packing		
Part Number		Qty.	Carrier	
KBJL606-TU	KBJL	20pcs	Tube	
KBJL608-TU	KBJL	20pcs	Tube	
KBJL610-TU	KBJL	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



KBJL6xx = 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	KBJL606	KBJL608	KBJL610	Unit	
Maximum Repetitive Peak Reverse Voltage		VRRM	600	800	1000	V	
Maximum DC Blocking Voltage		V _{DC}	600	800	1000	V	
Average Rectified Output Current	With Heatsink Without Heatsink	@T _C = +130°C @T _C = +125°C	IF(AV)		6 2.5		А
Peak Forward Surge Current 8.3ms Single Half Sine T _J =+25°C T _J =+125°C (Note 5)		IFSM		135 108		А	
Peak Forward Surge Current 1.0ms Single Half Sine T _J =+25°C Wave T _J =+125°C		T _J =+25°C T _J =+125°C (Note 5)	I _{FSM}		270 216		А
I ² t Rating for Fusing (t = 8.3ms)		l ² t		75.6		A ² s	
Operating Temperature Range		TJ		-55 to +150		°C	
Storage Temperature Range		T _{STG}		-55 to +150	1	°C	

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

Characteristic	Test Condition		Symbol	Value	Unit
Maximum Forward Voltage	I _F = 3A	$T_J = +25^{\circ}C$	VF	1.0	V
Maximum Leakage Current	V _R at Rated	$T_J = +25^{\circ}C$ $T_J = +125^{\circ}C$	IR	10 500	μΑ
Typical Junction Capacitance (Note 6)			Ст	52	pF

Thermal Characteristics

Characteristic	Symbol	Value	Unit
	Rejc	7	
Typical Thermal Resistance (Without Heatsink)	$R_{\theta JL}$	12	°C/W
	RøJA	28	
	Rejc	2	
Typical Thermal Resistance (Note 7)	Rejl	5	°C/W
	RøJA	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.



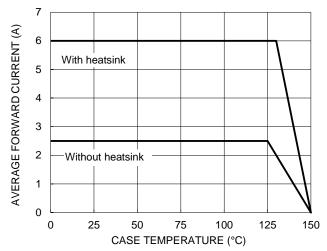


Figure 1. Forward Current Derating Curve

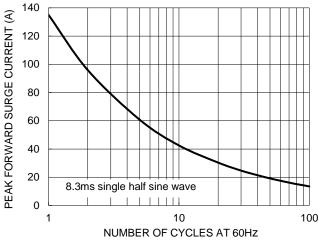


Figure 2. Maximum Non-Repetitive Surge Current

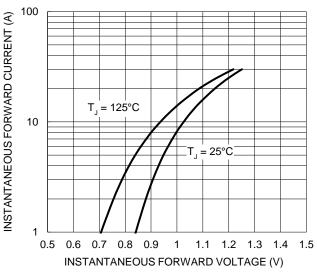


Figure 3. Typical Forward Characteristics

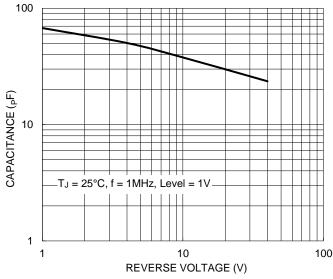


Figure 4. Typical Junction Capacitance

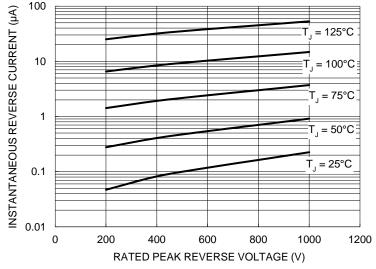


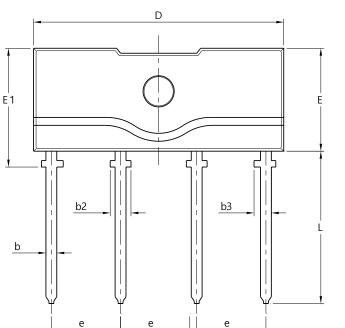
Figure 5. Typical Reverse Characteristics

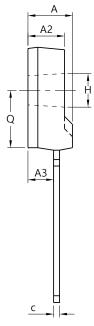


Package Outline Dimensions

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

KBJL





KBJL						
Dim	Min	Max				
Α	3.90	4.50				
A2	2.90	3.90				
А3	2.0	2.60				
b	0.90	1.10				
b2	2.10	2.30				
b3	ì	1.75				
С	0.40	0.60				
D	24.70	25.30				
E	10.0	10.60				
E1	11.40	12.00				
е	7.30	7.70				
Н	3.10	3.40				
L	14.60	15.20				
Q	5.40	6.00				
All Dimensions in mm						



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