KBJL10L08

10A LOW VF BRIDGE RECTIFIER

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ I_F = 5A	I_R Max (μA)
800	10	0.9	10

Features

- Glass Passivation Die Construction
- Ideal for Printed Circuit Board
- High Surge Current Capability
- 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/**

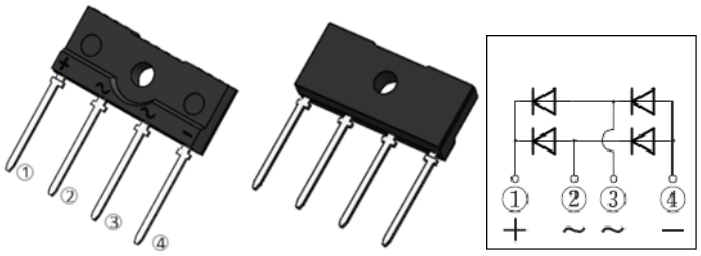
Mechanical Data

- Package: 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)

Applications

- TV power
- Game power
- PC power

KBJL

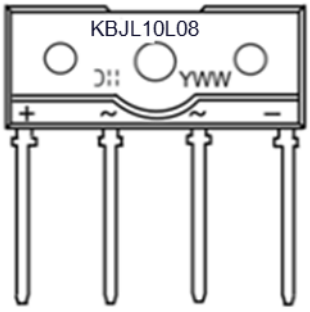


Ordering Information (Note 4)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
KBJL10L08	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



= Manufacturer's Code Marking
KBJL10L08 = Product Type Marking Code
YWW = Date Code Marking
Y = Year (ex: 5 = 2025)
WW = Week (01 to 53)

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

Characteristic			Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	800	V
Maximum DC Blocking Voltage			V_{DC}	800	V
Average Rectified Output Current	With Heatsink Without Heatsink		$I_{F(AV)}$	10 3.3	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave		T_J = +25°C	I_{FSM}	180	A
Peak Forward Surge Current 1.0ms Single Half Sine Wave		T_J = +25°C	I_{FSM}	360	A
I^2t Rating for Fusing (t = 8.3ms)			I^2t	135	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	Min	Typ	Max	Unit
Maximum Forward Voltage	I_F = 5A	T_J = +25°C	V_F	—	0.85	0.9	V
Maximum Leakage Current	V_R at 800V	T_J = +25°C T_J = +125°C	I_R	— —	— —	10 500	μA
Typical Junction Capacitance (Note 5)			C_T		115		pF

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Without Heatsink)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	6 10 33	°C/W
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	2 4 10	°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. Device mounted on 100mmX100mmX1.6mm copper plate heatsink.

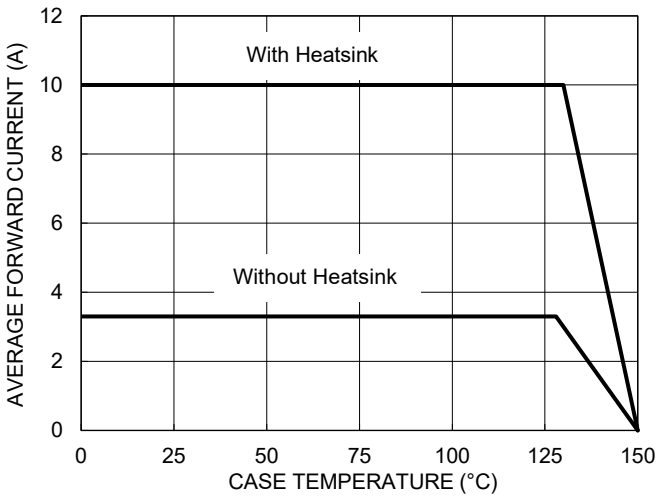


Figure 1. Forward Current Derating Curve

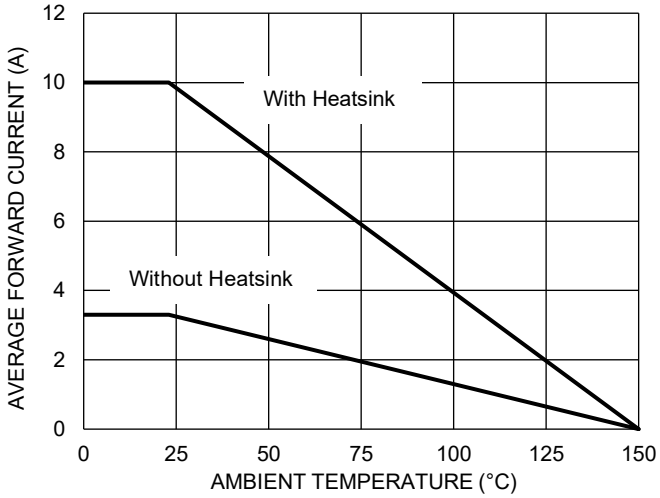


Figure 2. Forward Current Derating Curve

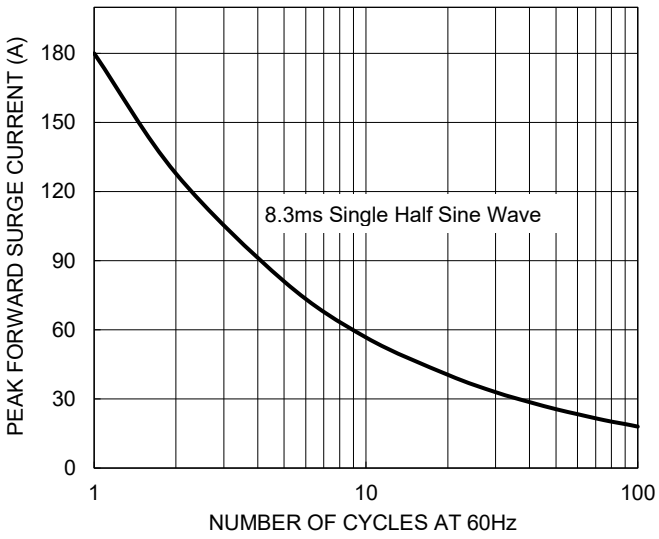


Figure 3. Maximum Non-Repetitive Surge Current

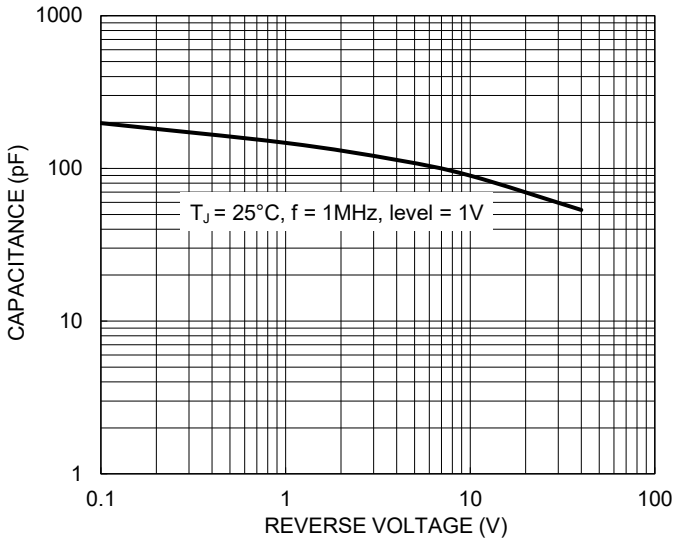


Figure 4. Typical Junction Capacitance

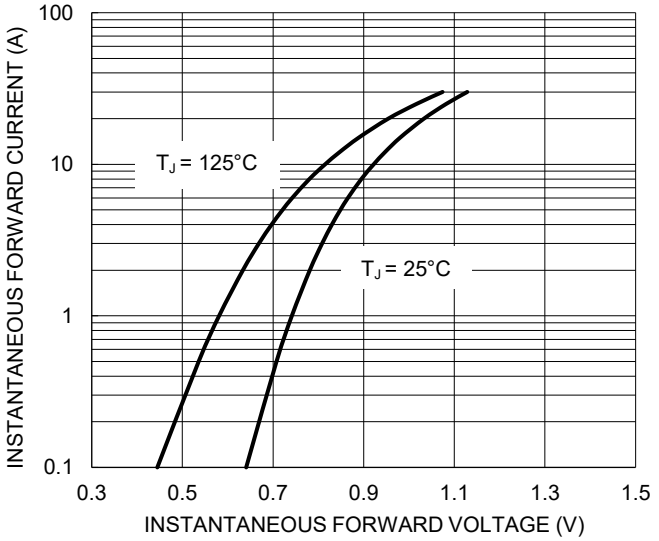


Figure 5. Typical Forward Characteristics

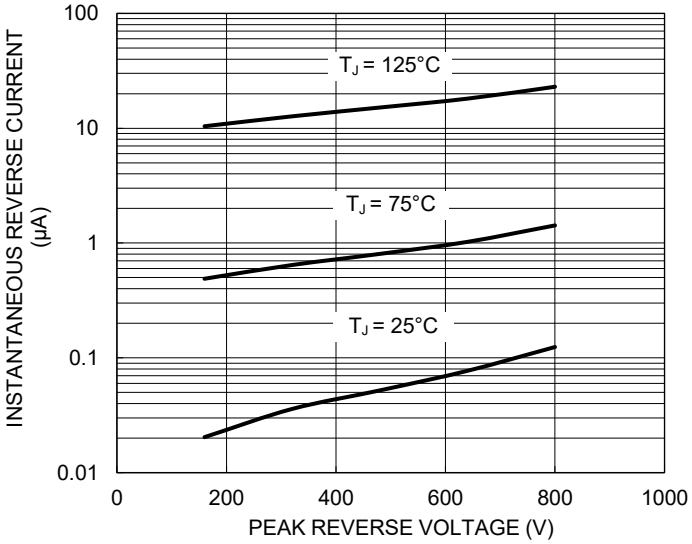


Figure 6. Typical Reverse Characteristics

Package Outline Dimensions

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

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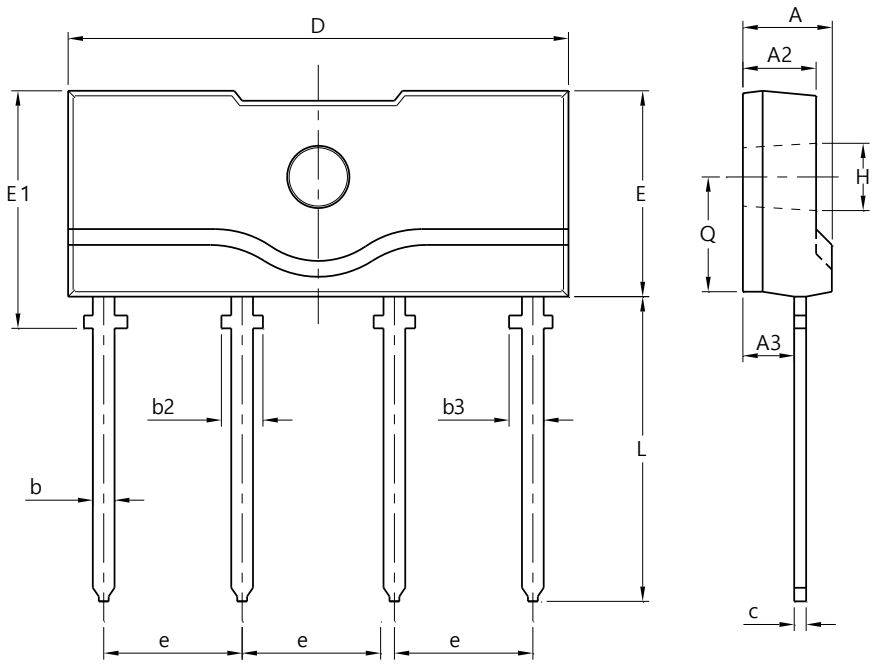

KBJL		
Dim	**Min**	**Max**
A	3.90	4.50
A2	2.90	3.90
A3	2.0	2.60
b	0.90	1.10
b2	2.10	2.30
b3	--	1.75
c	0.40	0.60
D	24.70	25.30
E	10.0	10.60
E1	11.40	12.00
e	7.30	7.70
H	3.10	3.40
L	14.60	15.20
Q	5.40	6.00
All Dimensions in mm		

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