

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 12.5A	I _R Max (μA)
800	25	0.9	10

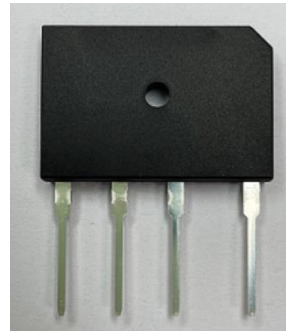
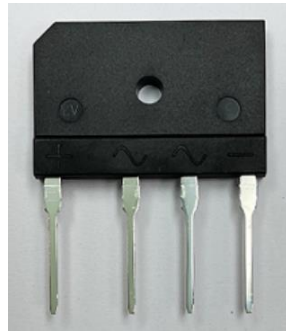
Mechanical Data

- Package: GBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Symbol Molded on Body
- Weight: 6.60 grams (Approximate)

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- 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](mailto:contact@diodes.com) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

GBJ

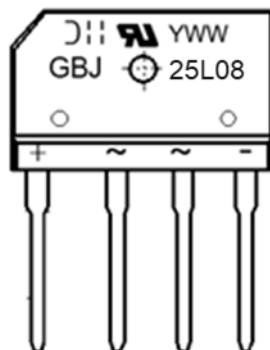


Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
GBJ25L08	GBJ	15	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



GBJ25L08 = Product Type Marking Code
 J11 = 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	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	800	V
Average Rectified Output Current T _A = +25°C (Note 5)	I _{F(AV)}	25	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave T _J = +25°C	I _{FSM}	320	A
I ² t Rating for Fusing (t = 8.3ms)	I ² t	425	A ² s
Operating Temperature Range	T _J	-40 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Breakdown Voltage	I _R = 10μA T _J = +25°C	V _B	800	—	—	V
Forward Voltage	I _F = 12.5A T _J = +25°C	V _F	—	0.875	0.9	V
Leakage Current	V _R = 800V T _J = +25°C	I _R	—	—	10	μA
Typical Junction Capacitance (Note 6)		C _T		250		pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Without Heatsink)	R _{θJC}	3	°C/W
	R _{θJL}	6.9	
	R _{θJA}	23.2	
Typical Thermal Resistance (Note 7)	R _{θJC}	0.8	°C/W
	R _{θJL}	2	
	R _{θJA}	3.5	

- Notes:
5. Perform static test after the temperature of oven is steady for 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. Device mounted on aluminum pad 170mm x 170mm x 45mm fin type heatsink.

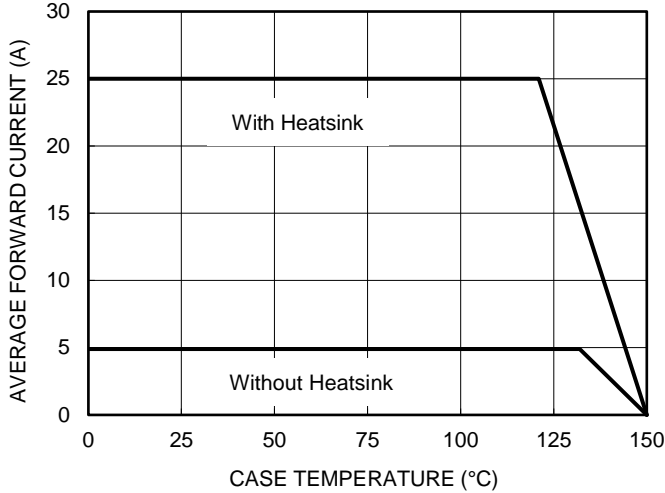


Figure 1. Forward Current Derating Curve

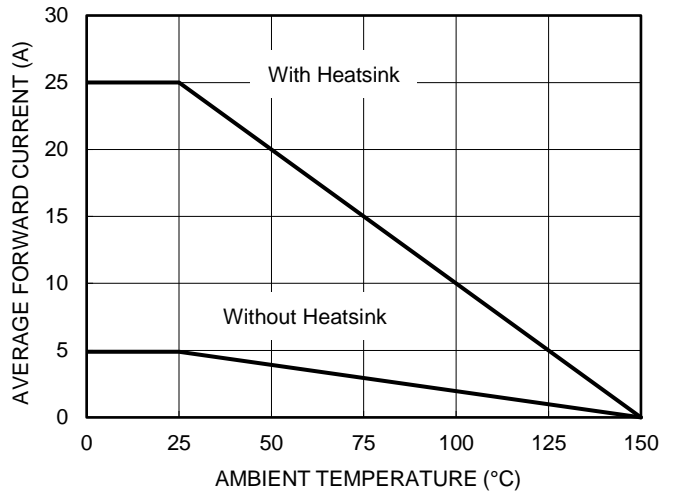


Figure 2. Forward Current Derating Curve

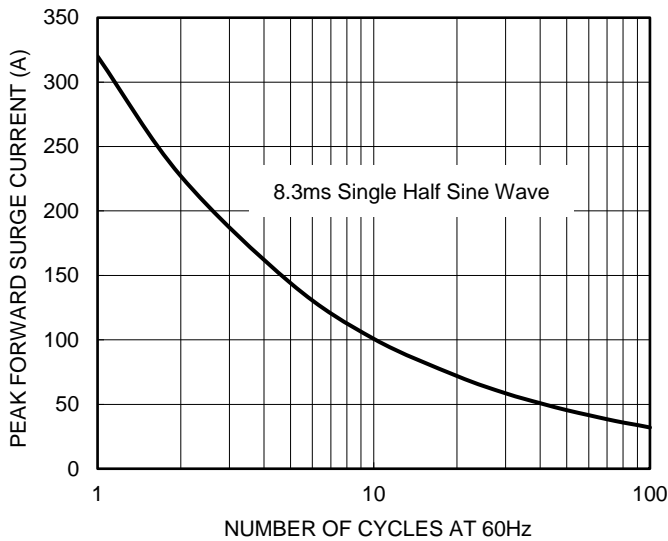


Figure 3. Maximum Non-Repetitive Surge Current

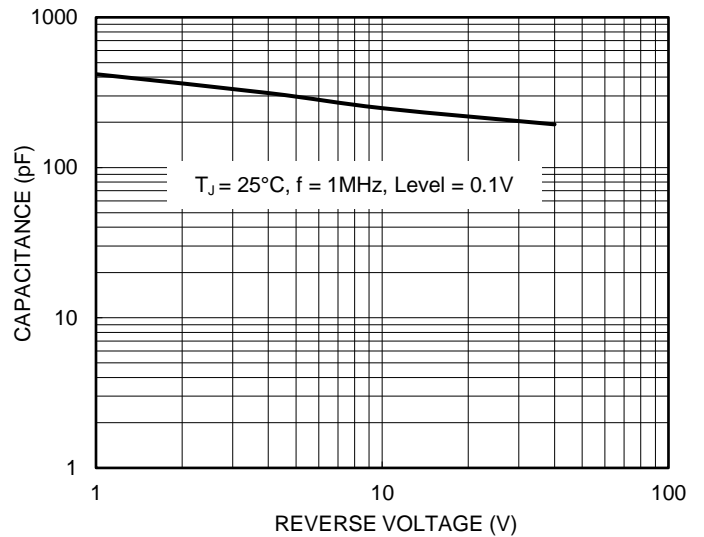


Figure 4. Typical Junction Capacitance

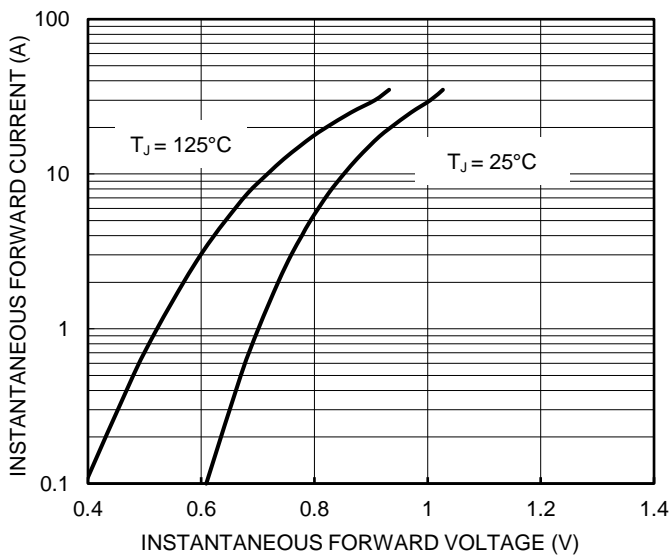


Figure 5. Typical Forward Characteristics

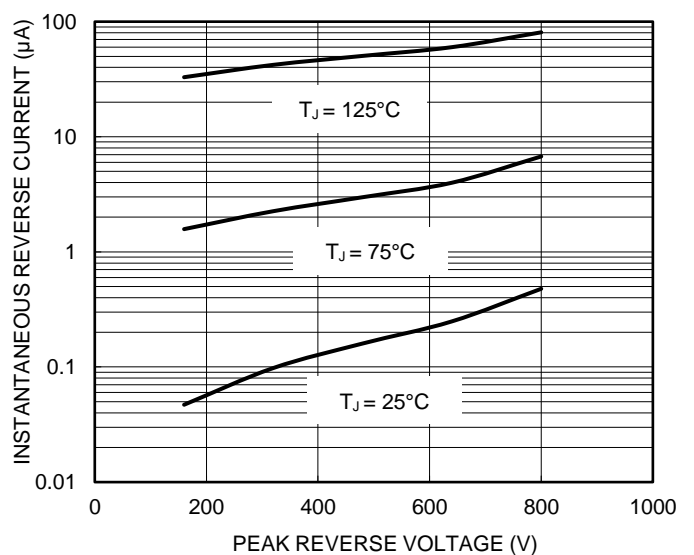
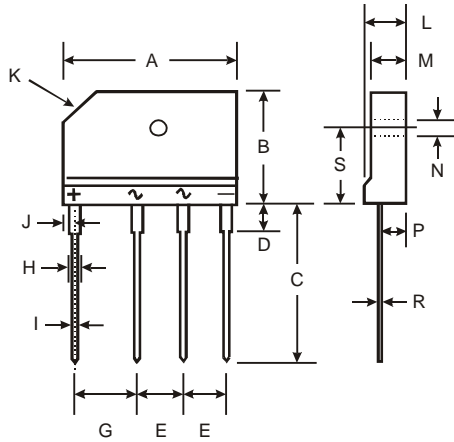


Figure 6. Typical Reverse Characteristics

Package Outline Dimensions

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

GBJ



GBJ		
Dim	Min	Max
A	29.70	30.30
B	19.70	20.30
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0 X 45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20
All Dimensions in mm		

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