

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ $I_F = 12.5A$	I_R Max (μA)
800	25	1.05	10

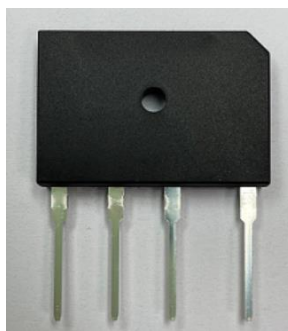
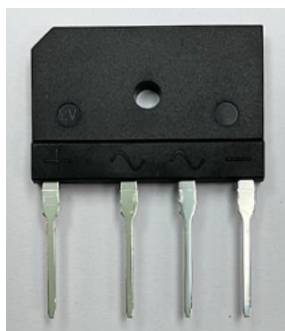
Mechanical Data

- Package: GBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0 (No Br, Sb, Cl)
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 @3
- Polarity Indicator: Symbol Molded on Body
- Weight: 6.60 grams (Approximate)

Features

- Glass Passivated Die Construction
- Rating to 800V PRV
- Ideal For Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic
- 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-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

GBJ

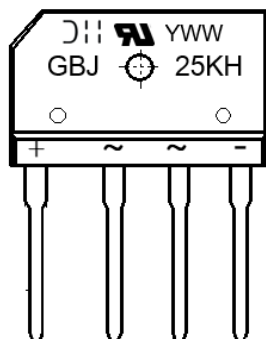


Ordering Information (Note 4)

Part Number	Qualification	Package	Packing	
			Qty.	Carrier
GBJ25KH-TU	Commercial	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



GBJ25KH = Product Type Marking Code
 J = Manufacturer's Code Marking
 YWW = Date Code Marking
 Y = Last Digit of Year (ex: 2 = 2022)
 WW = Week Code (01 to 53)

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

Characteristic	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	V
Average Rectified Output Current	$I_{F(AV)}$	25	A
With Heatsink		3.6	
Without Heatsink	I_{FSM}	350	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load		280	
Peak Forward Surge Current 1.0ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	700	A
		560	
I^2t Rating for Fusing ($t = 8.3\text{ms}$)	I^2t	508	A^2s
Operating Temperature Range	T_J	-40 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$

Electrical Characteristics

Characteristic	Test Conditions	Symbol	Value	Unit
Forward Voltage	$I_F = 12.5\text{A}$ $T_J = +25^\circ\text{C}$	V_F	1.05	V
Leakage Current	$V_R = 800\text{V}$ $T_J = +25^\circ\text{C}$	I_R	10	μA
Typical Junction Capacitance (Note 5)		C_J	93	pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$	1.6	$^\circ\text{C/W}$
	$R_{\theta JL}$	1.0	

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance junction to case and lead, device mounted on heatsink.

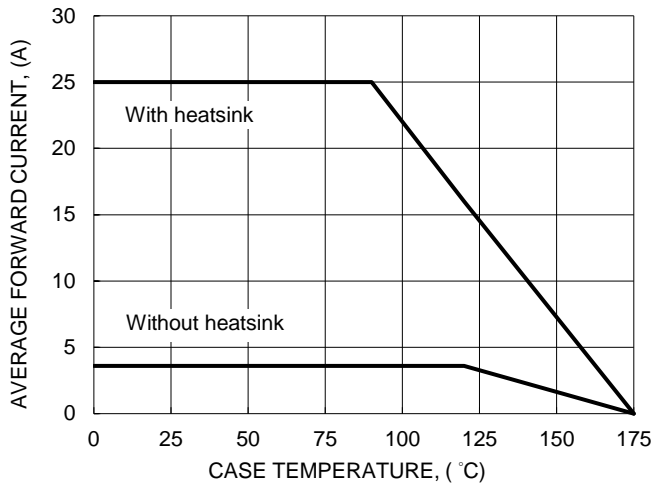


Figure 1. Forward Current Derating Curve

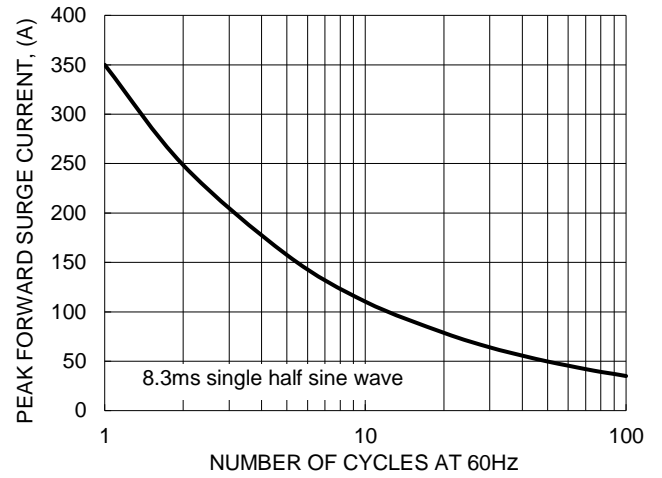


Figure 2. Maximum Non-Repetitive Surge Current

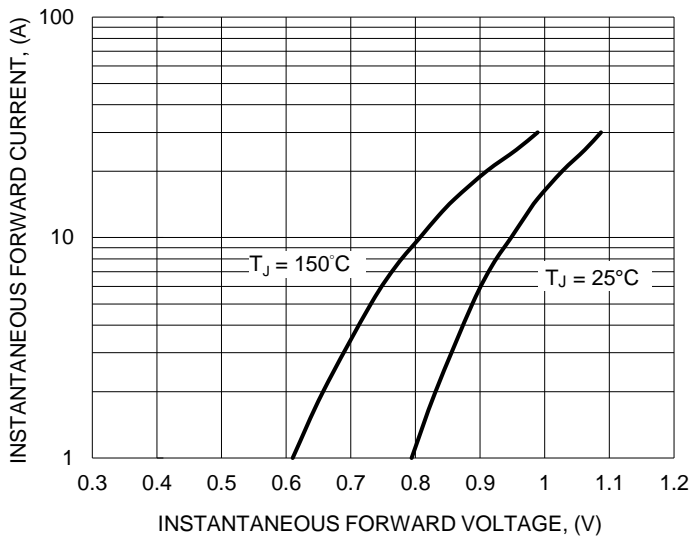


Figure 3. Typical Forward Characteristics

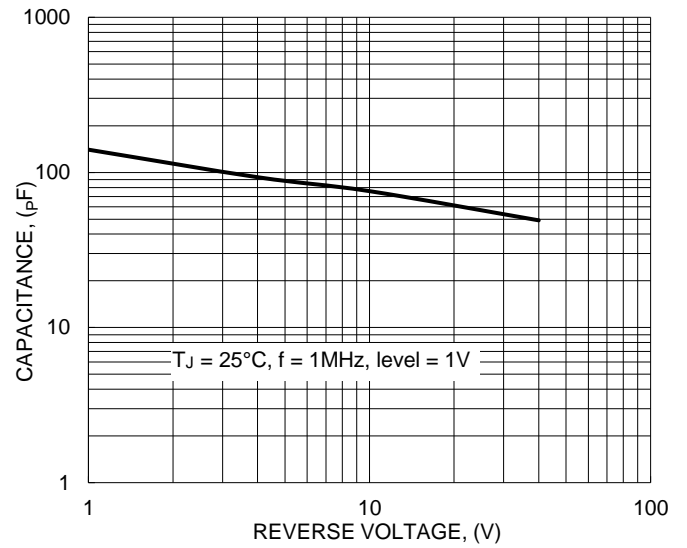


Figure 4. Typical Junction Capacitance

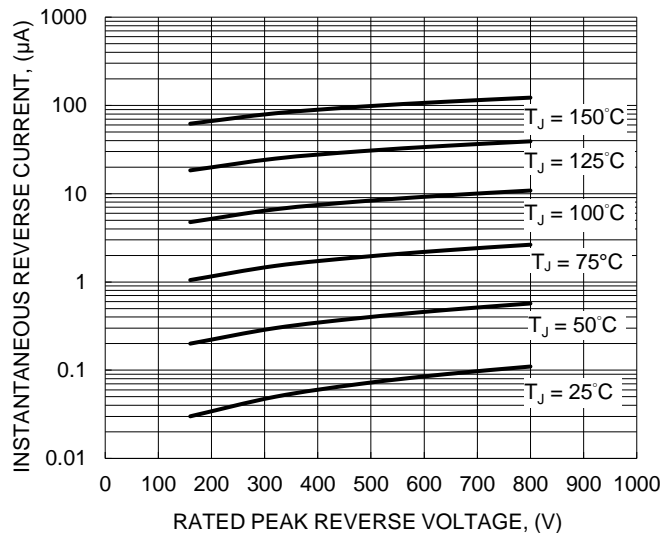
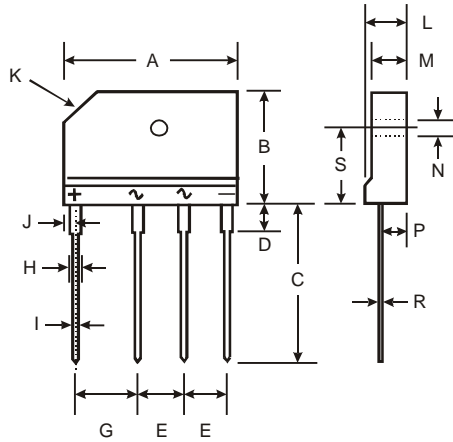


Figure 5. Typical Reverse Characteristics

Package Outline Dimensions

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

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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