

## Features

- Glass Passivated Die Construction
- Rating to 800V PRV
- Low Reverse Leakage Current
- Surge Overload Rating to 350A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

## Mechanical Data

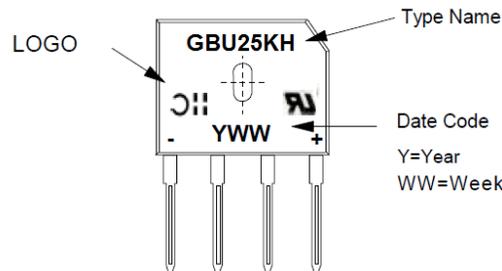
- Case: GBU
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Matte Tin Finish. Solderable per MIL-STD 202, Method 208 Ⓜ3
- Polarity: Marked on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-Pounds Maximum
- Marking: Date Code and Type Number
- Weight: 4 grams (Approximate)

## Ordering Information (Note 4)

Part Number	Compliance	Case	Packaging
GBU25KH	Commercial	GBU	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



## Maximum Ratings and Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	800	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	560	V
Average Forward Rectified Current (Note 5)	I <sub>(AV)</sub>	25	A
With Heatsink		3.6	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	350	A
Maximum Forward Voltage (Per Element)	V <sub>FM</sub>	1.05	V
Peak Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10	μA
I <sup>2</sup> t Rating for Fusing (Note 6)	I <sup>2</sup> t	325	A <sup>2</sup> s
Typical Total Capacitance Per Element (Note 7)	C <sub>T</sub>	93	pF
Typical Thermal Resistance Junction to Case (Note 5)	R <sub>θJC</sub>	1.7	°C/W
Typical Thermal Resistance Junction to Lead (Note 5)	R <sub>θJL</sub>	1.0	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

- Notes:
5. Unit mounted on heatsink.
  6. Non-repetitive, for t > 1.0ms and < 8.3ms.
  7. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

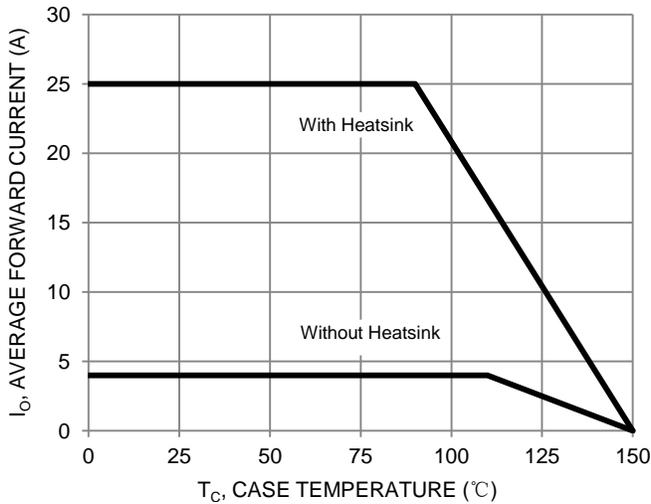


Fig.1 Forward Current Derating Curve

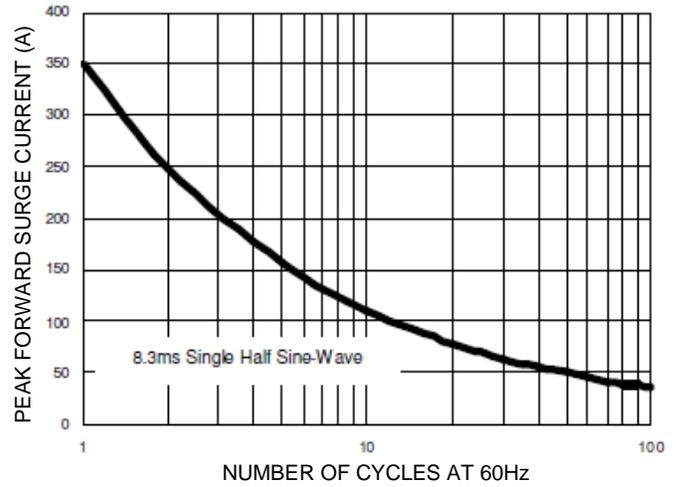


Fig.2 Maximum Non-Repetitive Surge Current

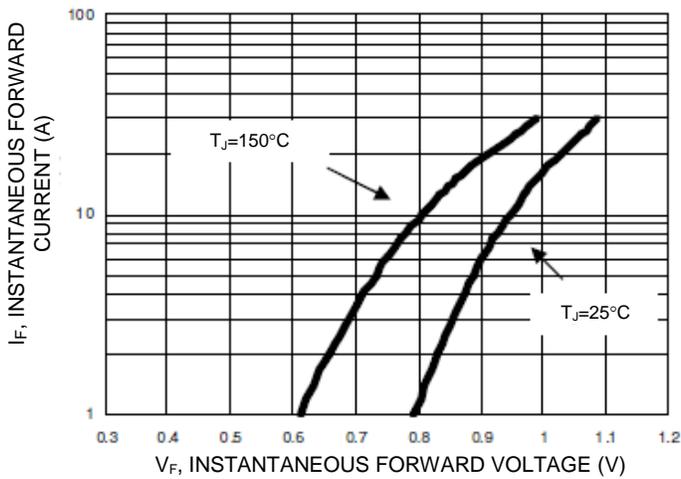


Fig.3 Typical Forward Characteristics

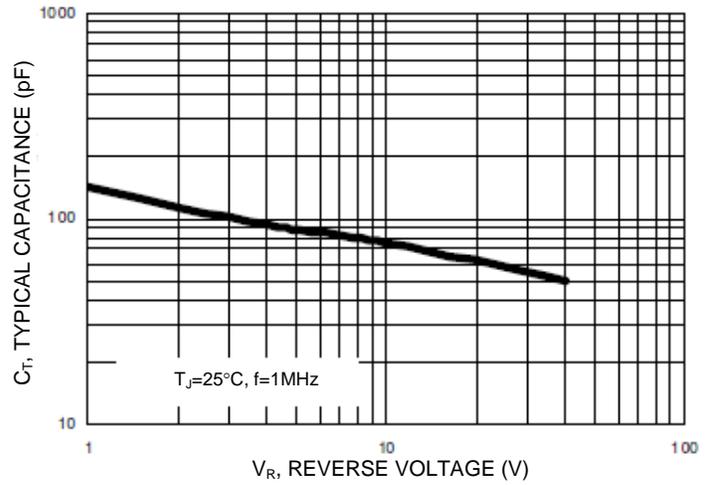


Fig.4 Typical Capacitance Characteristics

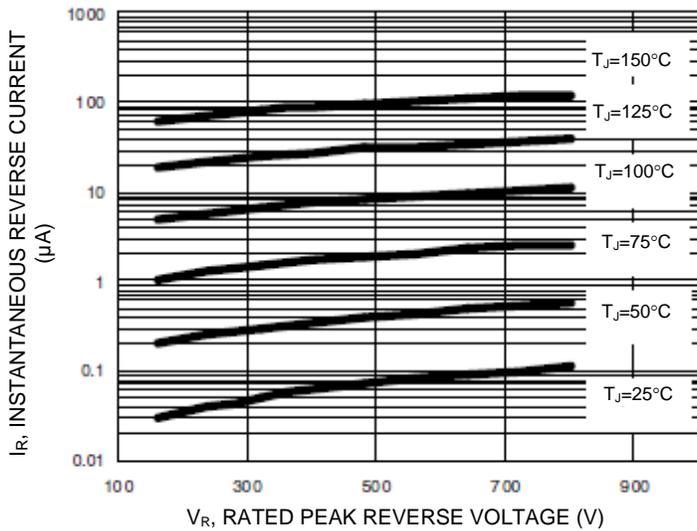
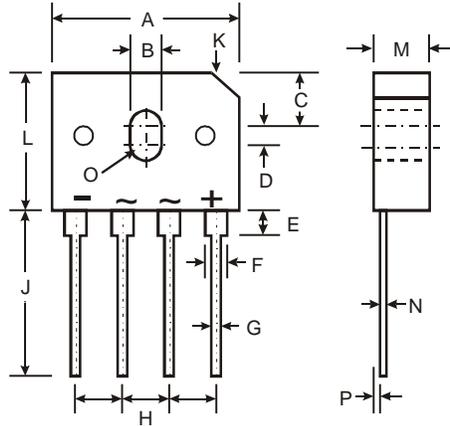


Fig.5 Typical Reverse Characteristics

**Package Outline Dimensions**

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



GBU		
Dim	Min	Max
A	21.8	22.3
B	3.5	4.1
C	7.4	7.9
D	1.65	2.16
E	2.25	2.75
F	1.95	2.35
G	1.02	1.27
H	4.83	5.33
J	17.5	18.0
K	3.2 X 45°	
L	18.3	18.8
M	3.30	3.56
N	0.46	0.56
O	1.90R	
P	0.76	1.0
All Dimensions in mm		

NEW PRODUCT

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