

## Product Summary

V <sub>RRM</sub> (V)	I <sub>F</sub> (A)	V <sub>F</sub> Max (V) @ I <sub>F</sub> = 15A	I <sub>R</sub> Max (μA)
800	30	1.1	10

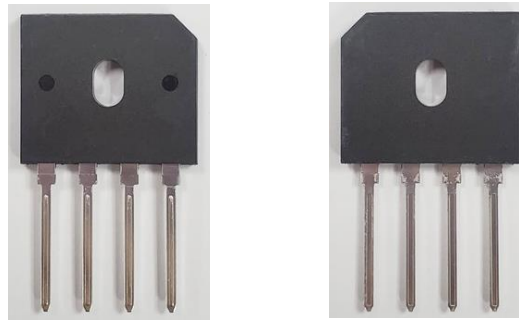
## Mechanical Data

- Package: GBU
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 (E3)
- Polarity Indicator: As Marked on the Body
- Weight: 4 grams (Approximate)
- Mounting Position: Any

## Features

- Glass Passivated Die Construction
- Rating to 800V PRV
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- **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/>**

GBU

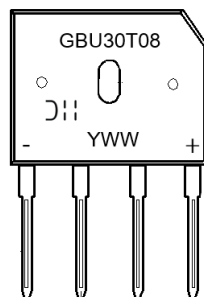


## Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
GBU30T08	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



GBU30T08 = Product Type Marking Code  
 Dii = 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<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	800	V
Average Rectified Output Current	I <sub>F(AV)</sub>	30	A
With Heatsink Without Heatsink		3.7	
Peak Forward Surge Current 8.3ms Single Half Sine Wave	I <sub>FSM</sub>	T <sub>J</sub> = +25°C	350
		T <sub>J</sub> = +125°C	280
Peak Forward Surge Current 1.0ms Single Half Sine Wave	I <sub>FSM</sub>	T <sub>J</sub> = +25°C	700
		T <sub>J</sub> = +125°C	560
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	I <sup>2</sup> t	508	A <sup>2</sup> s
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

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

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward Voltage	I <sub>F</sub> = 15A      T <sub>J</sub> = +25°C	V <sub>F</sub>	—	—	1.1	V
Leakage Current	V <sub>R</sub> = 800V      T <sub>J</sub> = +25°C	I <sub>R</sub>	—	—	10	μA
Reverse Recovery Time	I <sub>F</sub> = 0.5A, I <sub>rr</sub> = 0.25A, I <sub>R</sub> = 1.0A	t <sub>rr</sub>	3000	—	—	ns
Typical Junction Capacitance (Note 5)		C <sub>T</sub>	—	102	—	pF

**Thermal Characteristics**

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	R <sub>θJC</sub>	1	°C/W
	R <sub>θJL</sub>	2	

- Notes:
- 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  - 6. Thermal resistance junction to case and lead. Unit mounted on cooler +10°C rated current.

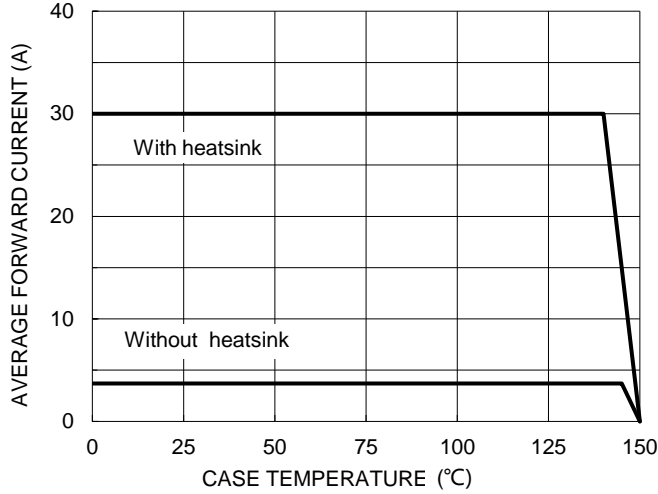


Figure 1. Forward Current De-rating Curve

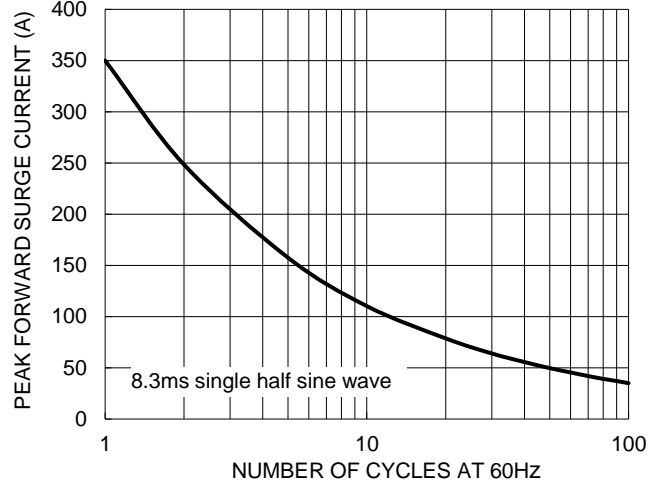


Figure 2. Maximum Non-Repetitive Surge Current

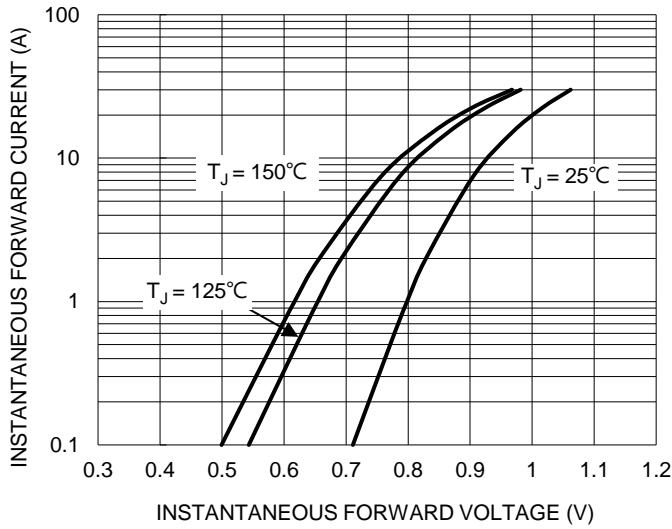


Figure 3. Typical Forward Characteristics

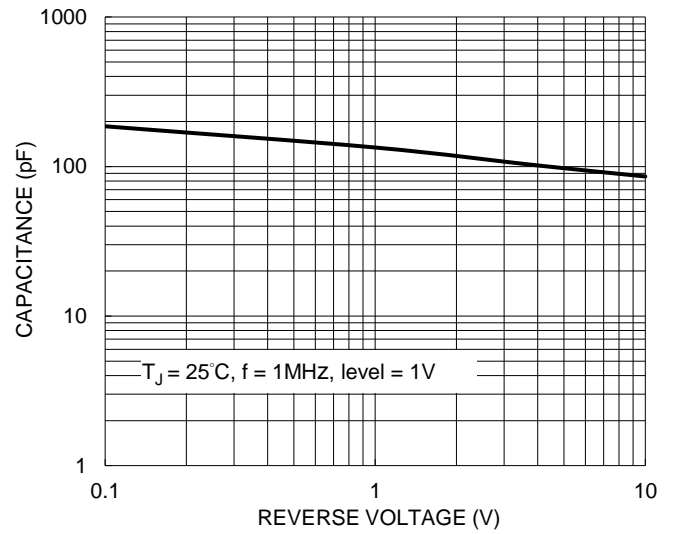


Figure 4. Typical Junction Capacitance

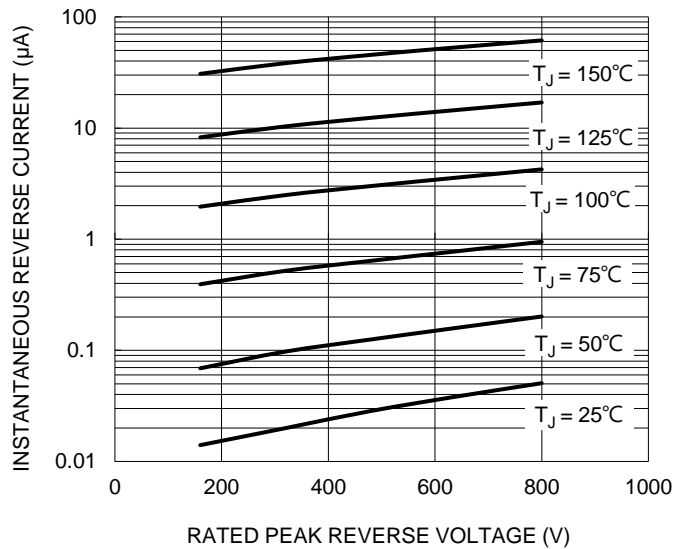
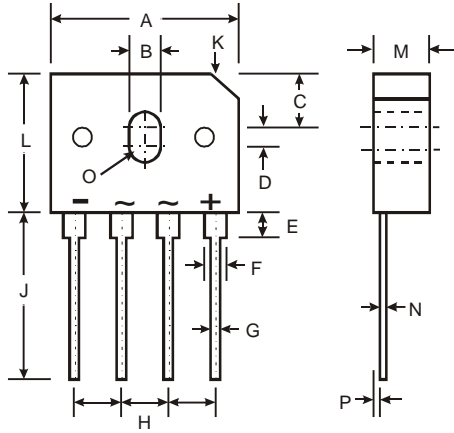


Figure 5. Typical Reverse Characteristics

**Package Outline Dimensions**

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

**GBU**



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
<b>All Dimensions in mm</b>		