

## Product Summary

V <sub>RRM</sub> (V)	I <sub>F</sub> (A)	V <sub>F</sub> Max (V) @ I <sub>F</sub> = 7.5A	I <sub>R</sub> Max (μA)
600, 800, 1000	15	1.1	5

## 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
- Polarity Indicator: As Marked on The Body
- Weight: 4.0 grams (Approximate)
- Mounting Position: Any



## Features

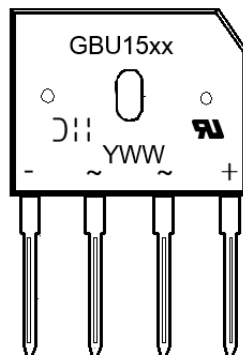
- Glass Passivated Die Construction
- Rating to 1000V PRV
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- UL Recognized File # E94661
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, 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/>**

## Ordering Information (Note 4)

Part Number	Qualification	Package	Packing	
			Qty.	Carrier
GBU1506-TU	Commercial	GBU	20pcs	Tube
GBU1508-TU	Commercial	GBU	20pcs	Tube
GBU1510-TU	Commercial	GBU	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



GBU15xx = Product Type Marking Code  
 = Manufacturer's Code Marking  
 YWW = Date Code Marking  
 Y = Last Digit of Year (ex: 1 = 2021)  
 WW = Week Code (01 to 53)

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

Characteristic	Symbol	GBU1506	GBU1508	GBU1510	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	600	800	1000	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	600	800	1000	V
Average Rectified Output Current @T <sub>C</sub> = +100°C	I <sub>F(AV)</sub>		15 3.2		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave T <sub>J</sub> = +25°C	I <sub>FSM</sub>		200		A
I <sup>2</sup> t Rating for Fusing (t = 8.3ms)	I <sup>2</sup> t		166		A <sup>2</sup> s
Mounting Torque (Recommended Torque: 0.5 N.m)	T <sub>OR</sub>		0.8		N.m
Operating Junction 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 Condition	Symbol	Max	Unit
Forward Voltage (Note 5)	I <sub>F</sub> = 7.5A T <sub>J</sub> = +25°C	V <sub>F</sub>	1.1	V
Leakage Current	V <sub>R</sub> at Rated T <sub>J</sub> = +25°C T <sub>J</sub> = +125°C	I <sub>R</sub>	5 500	μA
Typical Junction Capacitance (Note 6)		C <sub>J</sub>	50	pF

**Thermal Characteristics**

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

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
6. Device mounted on 200mm \* 200mm \* 5mm AL plate heatsink.

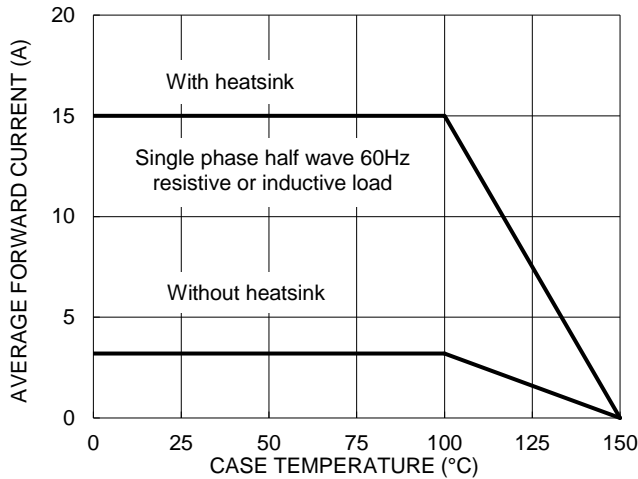


Figure 1. Forward Current Derating Curve

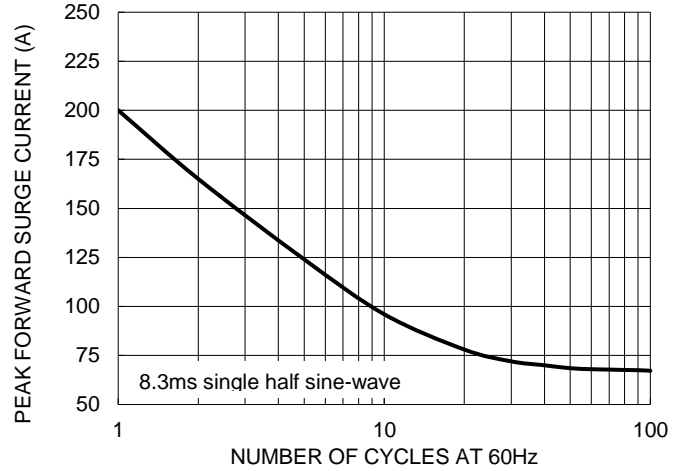


Figure 2. Maximum Non-repetitive Surge Current

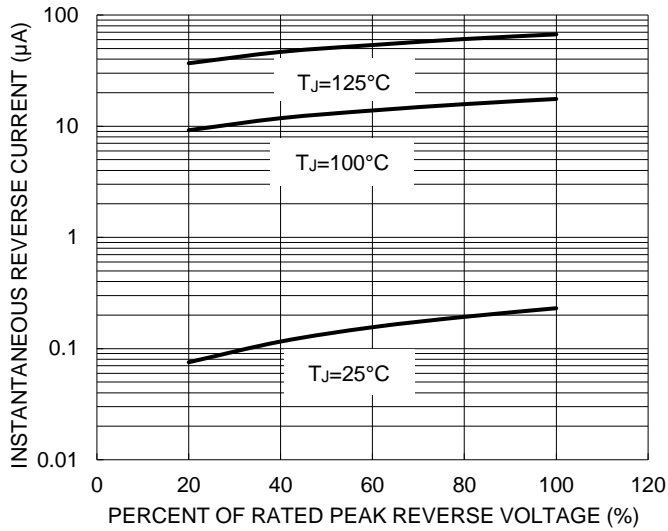


Figure 3. Typical Reverse Characteristics

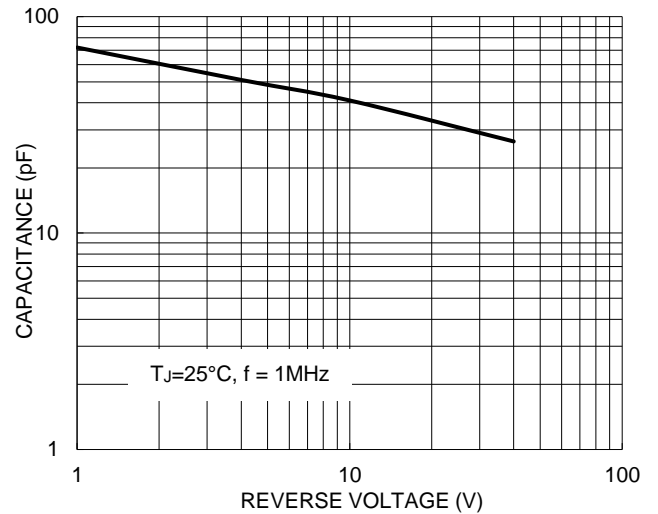


Figure 4. Typical Junction Capacitance

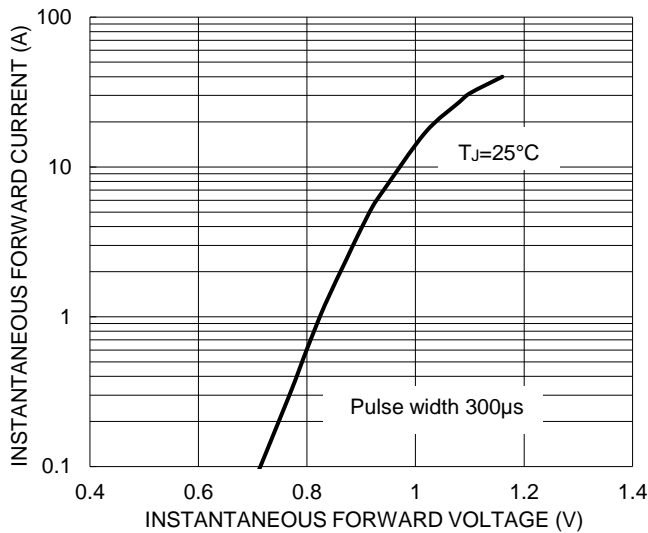


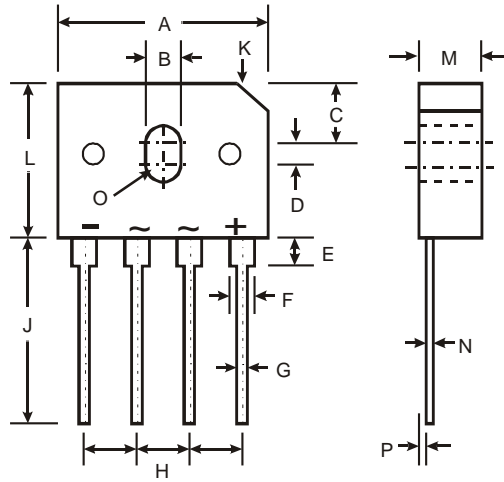
Figure 5. Typical Forward Characteristics

Pulse width 8.3ms  
Single Half Sine-Wave

**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>		

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