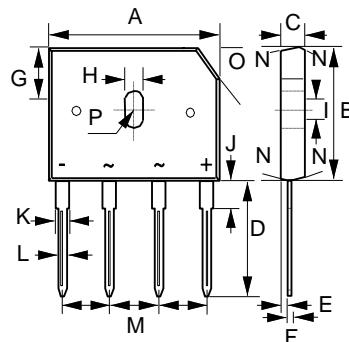


**GLASS PASSIVATED BRIDGE RECTIFIER**
**REVERSE VOLTAGE – 1000 Volts**  
**FORWARD CURRENT – 8.0 Amperes**
**FEATURES**

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The Plastic material, UL flammability classification 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

**MECHANICAL DATA**

- Polarity: As marked on Body
- Package: GBU
- Qualification is according to MIL –STD 750E
- Weight: 0.138 ounces, 3.9 grams, Approximate
- Mounting position: Any

**GBU**


GBU		
DIM	MIN	MAX
A	21.80	22.30
B	18.30	18.80
C	3.30	3.56
D	17.50	18.00
E	0.76	1.00
F	0.46	0.56
G	7.40	7.90
H	3.50	4.10
I	1.65	2.16
J	1.85	2.75
K	1.95	2.35
L	1.02	1.27
M	4.83	5.33
N	7.0° TYPICAL	
O	(3.2) x 45°	
P	1.90 PADIUS	
All dimension in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	1000	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Average rectified output current per device	$I_{(AV)}$	8.0 3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	180 144	A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	$I_{FSM}$	360 288	A
$I^2 t$ rating for fusing ( $t = 8.3ms$ )	$I^2 t$	134.4	$A^2 S$
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Forward voltage	$I_F = 4A$	$V_F$	1.0	V
Leakage current	$V_R$ at rated	$I_R$	5 500	uA
Typical junction capacitance (Note 4)		$C_J$	72	pF

**THERMAL CHARACTERISTICS**

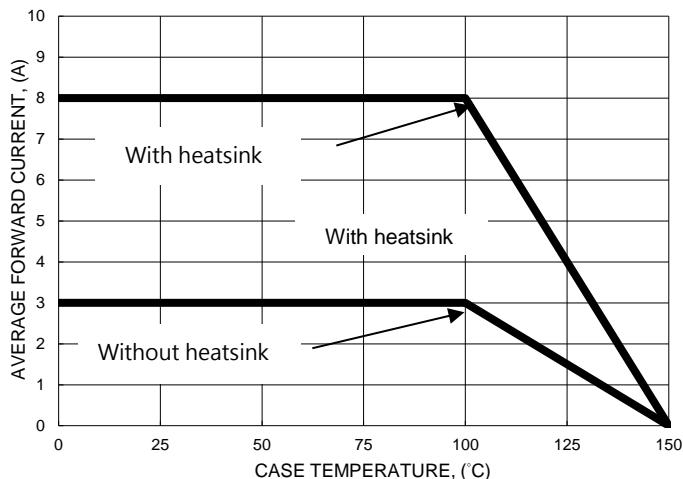
PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 5)	$R_{thJC}$	1.6	°C/W

**Notes:**

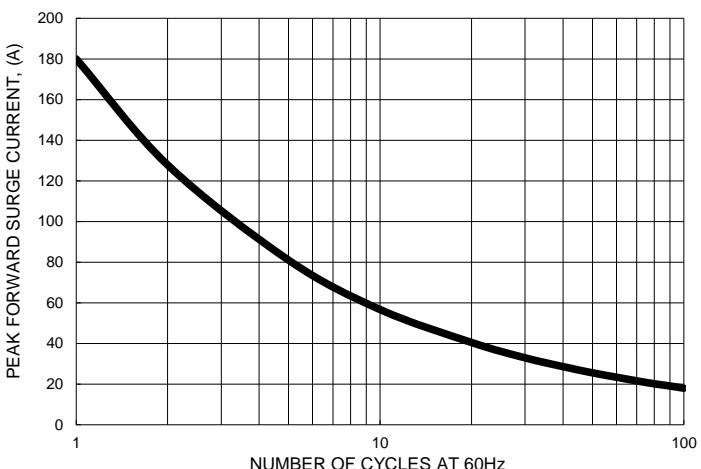
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Device mounted on 150 mm \* 150 mm \*1.6mm Cu plate heatsink.

**RATING AND CHARACTERISTIC CURVES**  
**GBU8M**

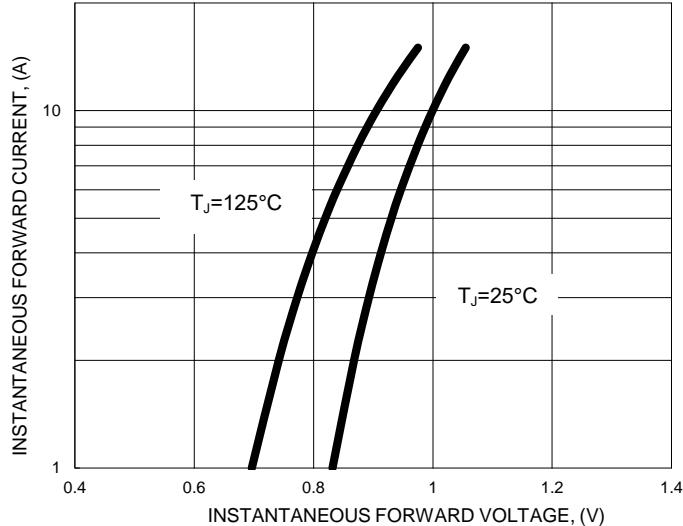
**FIG.1- FORWARD CURRENT DERATING CURVE**



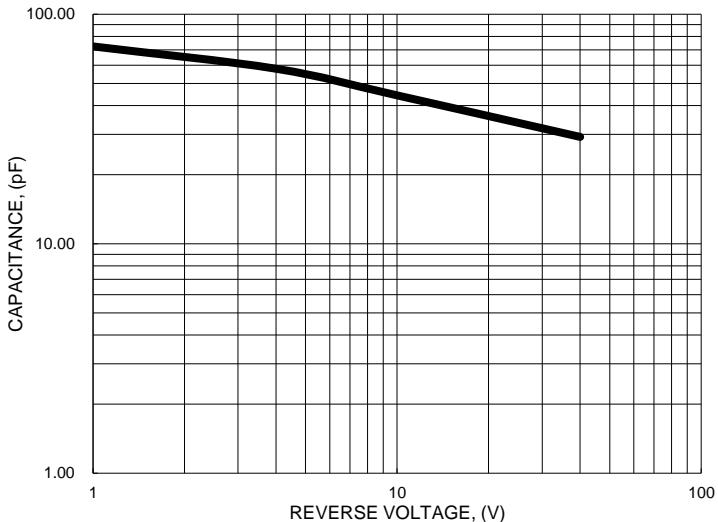
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



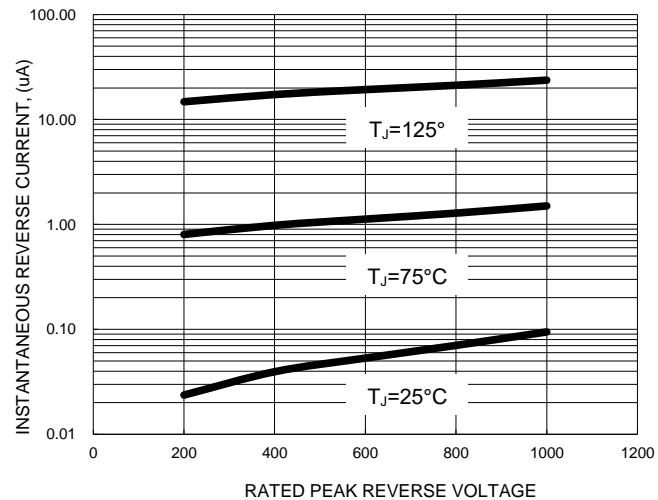
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



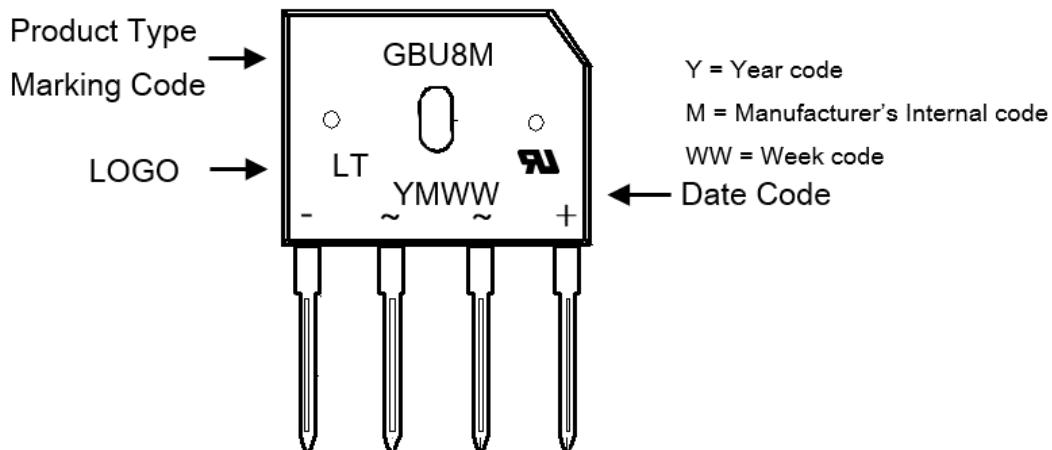
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



## Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBU8M_HF-BU	GBU	350pcs	Bulk

## Marking Information :



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