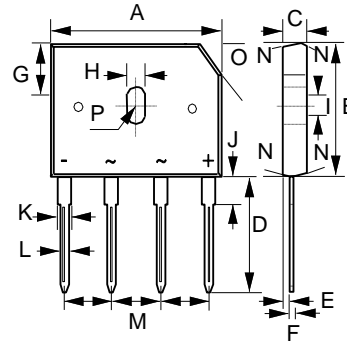


GLASS PASSIVATED BRIDGE RECTIFIER
**REVERSE VOLTAGE – 1000 Volts
 FORWARD CURRENT – 8.0 Amperes**
FEATURES

- 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	A
With heatsink (Note 5)		3.0	
Without heatsink, @ $T_C=100^\circ\text{C}$			
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	180	A
@ $T_A=25^\circ\text{C}$		144	
@ $T_A=125^\circ\text{C}$			
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	I_{FSM}	360	A
@ $T_A=25^\circ\text{C}$		288	
@ $T_A=125^\circ\text{C}$			
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)	$I^2 t$	134.4	A^2S
Operating and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Forward voltage	$I_F = 4\text{A}$, $T_A = 25^\circ\text{C}$	V_F	1.0	V
Leakage current	V_R at rated, $T_A = 25^\circ\text{C}$	I_R	5	μA
	$T_A = 125^\circ\text{C}$		500	
Typical junction capacitance (Note 4)		C_J	72	pF

THERMAL CHARACTERISTICS

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

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

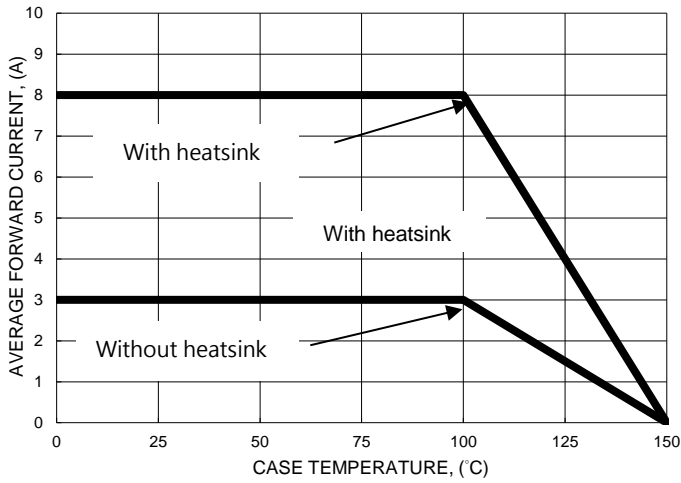


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

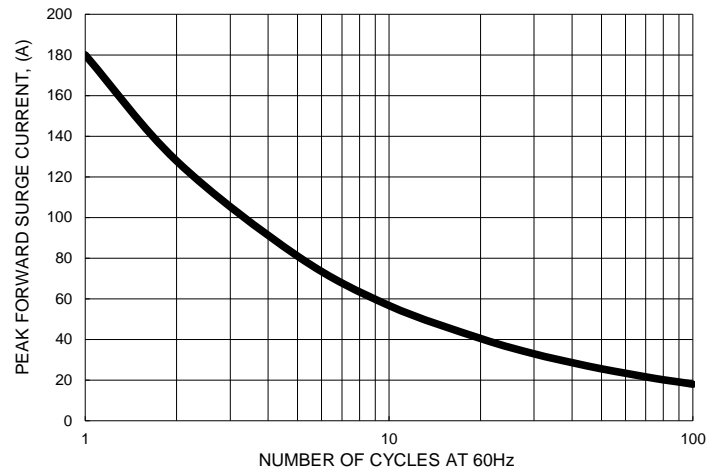


FIG.3- TYPICAL FORWARD CHARACTERISTICS

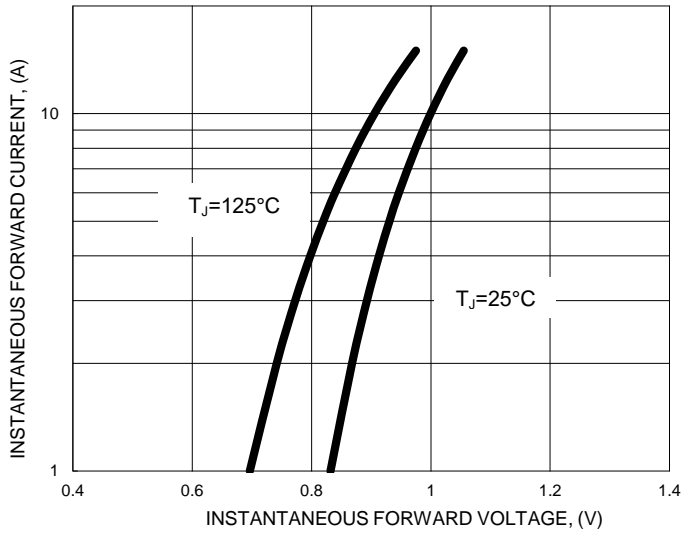


FIG.4- TYPICAL JUNCTION CAPACITANCE

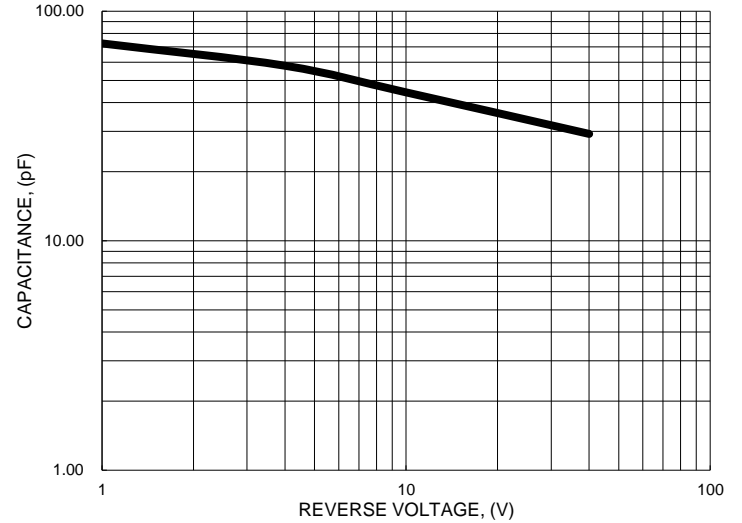
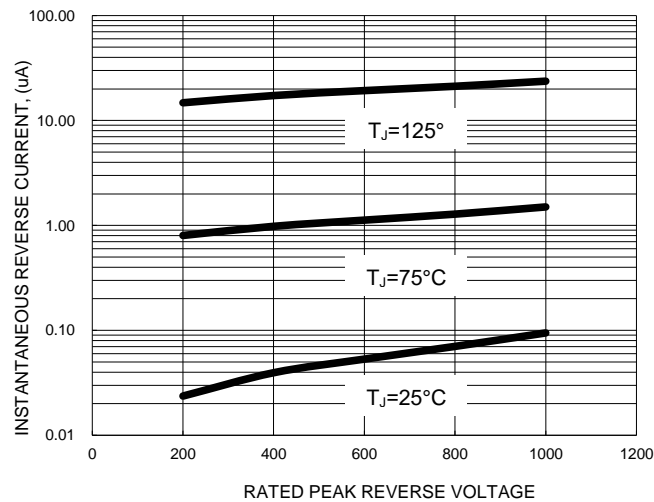


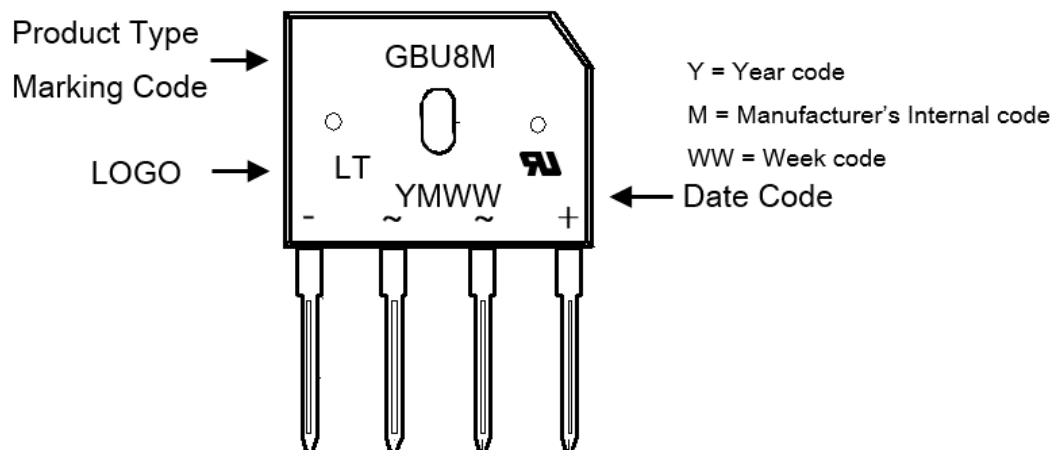
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

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

Marking Information :



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