GBU806-GBU810(LS)

GLASS PASSIVATED BRIDGE RECTIFIER

REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 8.0 Amperes

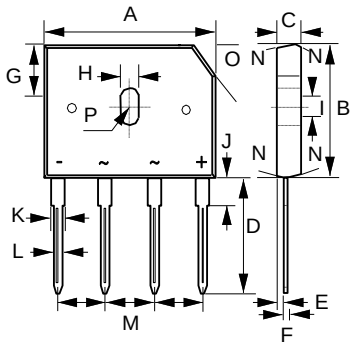
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- UL recognition file # E95060
- 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
- Weight: 0.15 ounces, 4.0 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	0.80	1.00
F	0.46	0.56
G	7.40	7.90
H	3.50	4.10
I	1.65	2.16
J	2.25	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	GBU806	GBU808	GBU810	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	600	800	1000	V
Average rectified output current per device With heatsink,@T_C=100°C Withoutheatsink,@T_C=100°C	$I_{(AV)}$	8.0 3.2			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ T_A=25°C @ T_A=125°C	I_{FSM}	220 200			A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load @ T_A=25°C @ T_A=125°C	I_{FSM}	440 400			A
I^2 t rating for fusing (t = 8.3ms)	I^2t	200			A^2S
Operating and storage temperature range	T_J ,T_{STG}	-55 to +150			°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	VALUE	UNIT
Forward voltage (Note 4)	I_F = 4A I_F = 8A	T_A = 25°C	V_F	1.0 1.2	V
Leakage current	V_R at rated	T_A = 25°C T_A = 125°C (Note 4)	I_R	5 500	uA
Typical junction capacitance (Note 5)			C_J	60	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (with heatsink) (Note 6)	$RthJ_A$ $RthJ_L$ $RthJ_C$	8.0 3.0 2.2	°C/W
Typical thermal resistance (without heatsink)	$RthJ_C$	5.6	°C/W

Note:

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. Perform static test after the temperature of oven is steady 20 minutes.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Device mounted on 100 mm * 100 mm *1.6mm Cu Plate heatsink.

RATING AND CHARACTERISTIC CURVES
GBU806 thru GBU810

FIG.1- FORWARD CURRENT DERATING CURVE

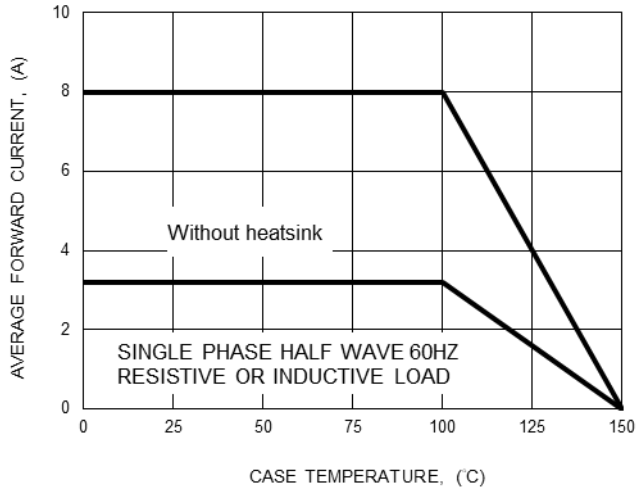


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

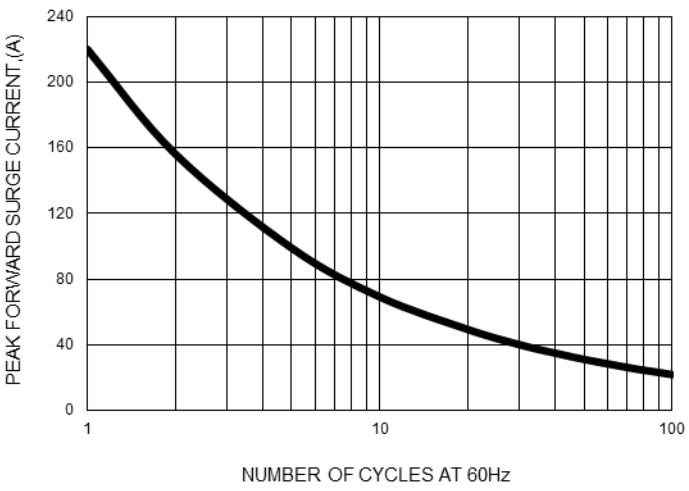


FIG.3- TYPICAL JUNCTION CAPACITANCE

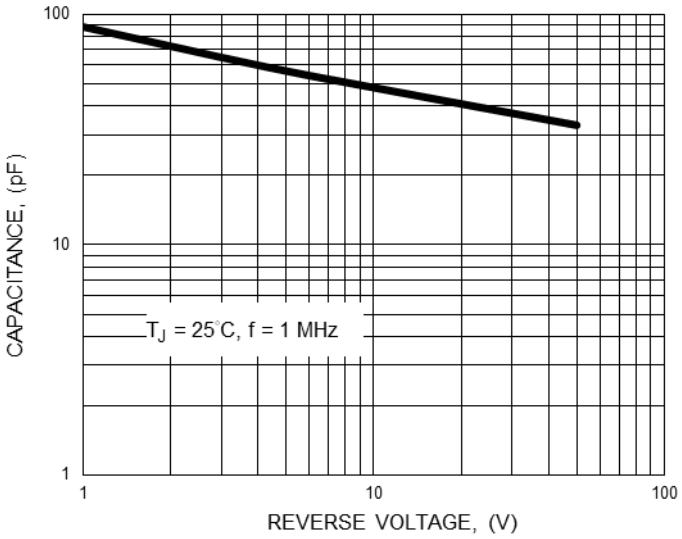


FIG.4- TYPICAL FORWORD CHARACTERISTICS

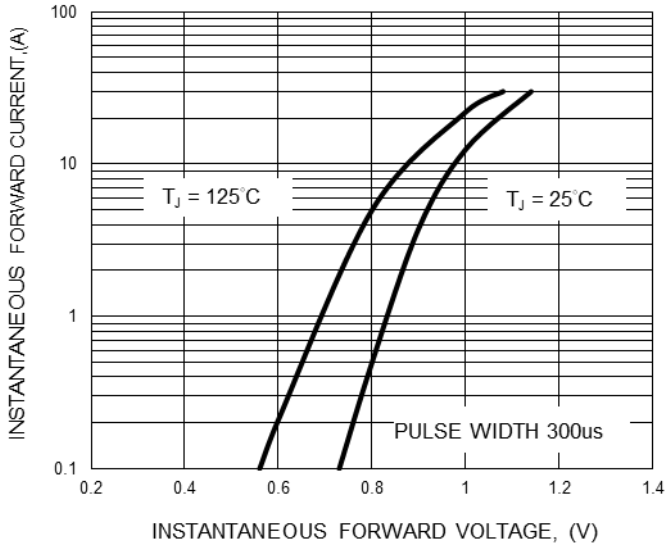


FIG.5- TYPICAL REVERSE CHARACTERISTICS

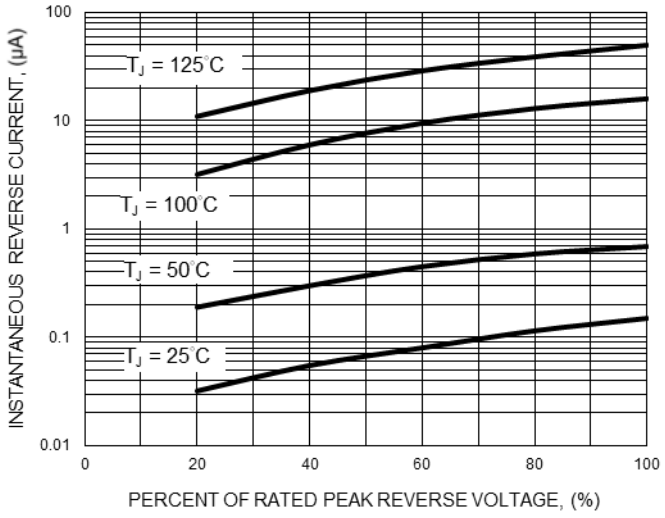
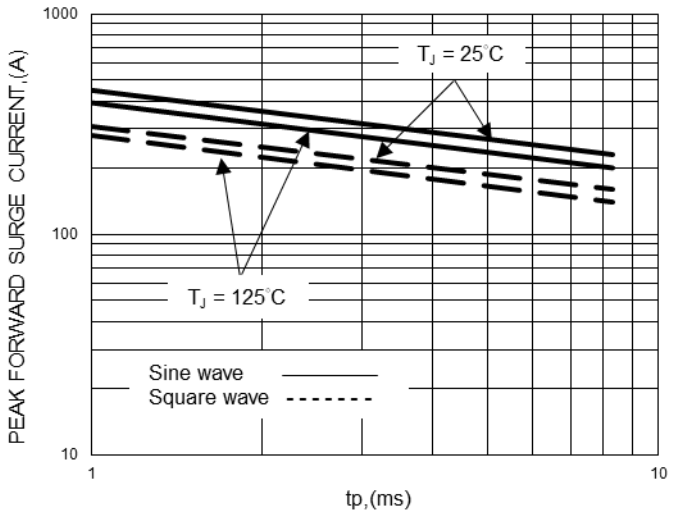


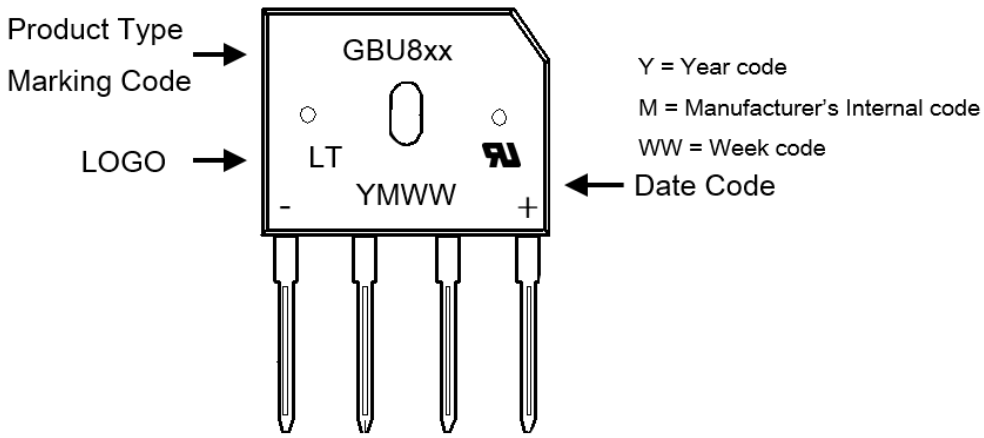
FIG.6- NON-REPETITIVE SURGE CURRENT



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
GBU806_HF	GBU	20	Tube
GBU808_HF	GBU	20	Tube
GBU810_HF	GBU	20	Tube

Marking Information :



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