

# GBU806-GBU810(LS)

## GLASS PASSIVATED BRIDGE RECTIFIER

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

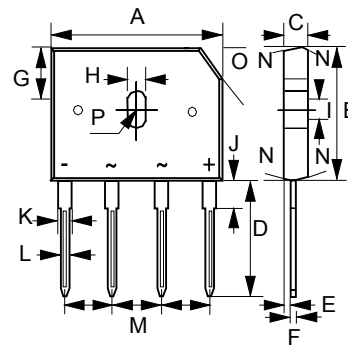
### FEATURES

- 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

### 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	$I_{(AV)}$	8.0 3.2			A
		With heatsink, @ $T_C=100^\circ\text{C}$ Without heatsink, @ $T_C=100^\circ\text{C}$			
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$		220 200		A
			@ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$		
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	$I_{FSM}$		440 400		A
			@ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$		
$I^2 t$ rating for fusing (t = 8.3ms)	$I^2 t$		200		A <sup>2</sup> S
Operating and storage temperature range	$T_J, T_{STG}$		-55 to +150		°C

### STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP. MAX	UNIT
Forward voltage (Note1)	$I_F = 4\text{A}$ $I_F = 8\text{A}$	$T_A = 25^\circ\text{C}$	$V_F$	1.0 1.2	V
Leakage current	$V_R$ at rated	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ (Note1)	$I_R$	5 500	µA
Typical junction capacitance (Note2)			$C_J$	60	pF

### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical Thermal Resistance (with Heatsink) (Note3)	$R_{thJA}$ $R_{thJL}$ $R_{thJC}$	8.0 3.0 2.2	°C/W
Typical thermal resistance (without heatsink)	$R_{thJC}$	5.6	°C/W

#### Note :

- (1) Perform static test after the temperature of oven is steady 20 minutes.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (3) Device mounted on 100 mm \* 100 mm \* 1.6mm Cu Plate heatsink.

REV.11, Sep-2021, KBDJ03

FIG.1 - FORWARD CURRENT DERATING CURVE

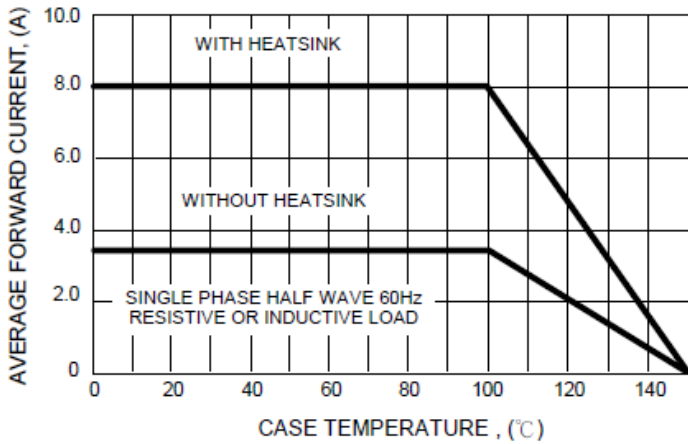


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

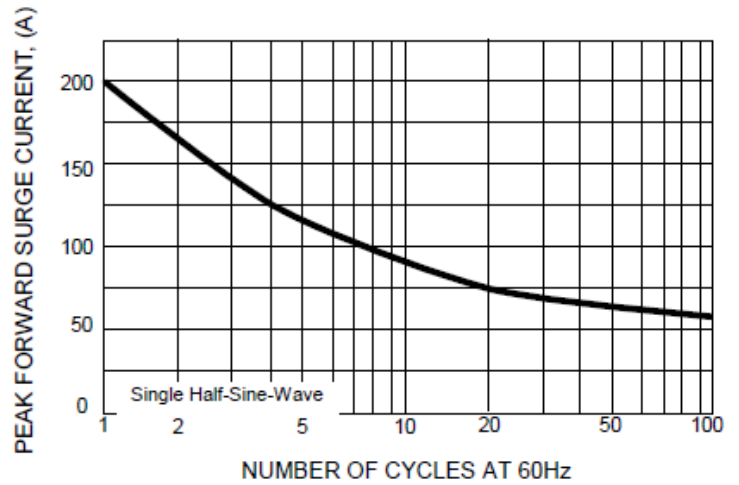


FIG.3 - TYPICAL JUNCTION CAPACITANCE

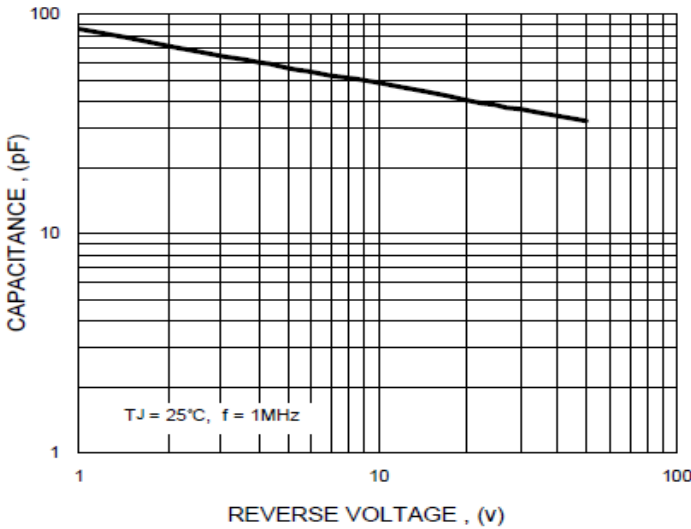


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

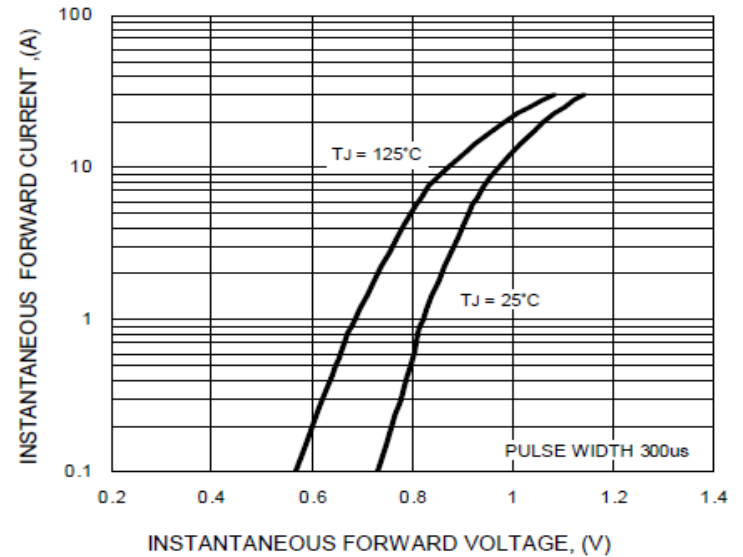


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

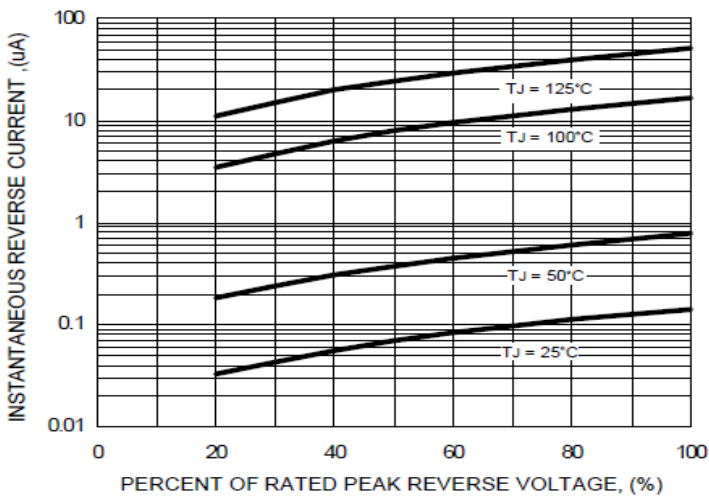
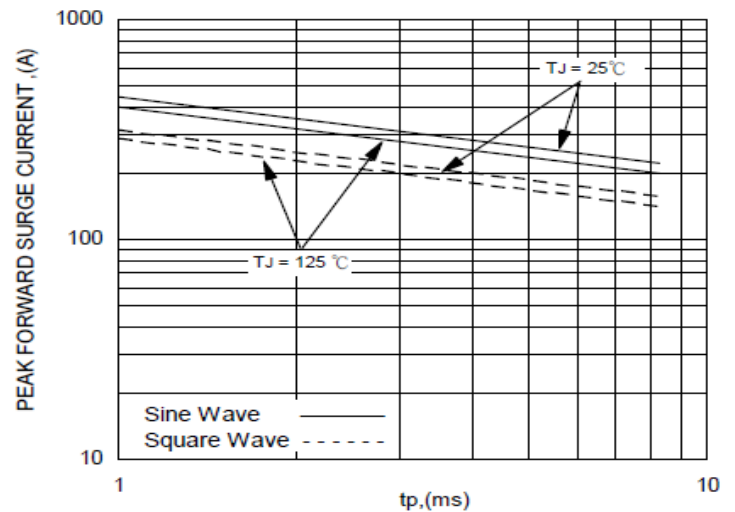


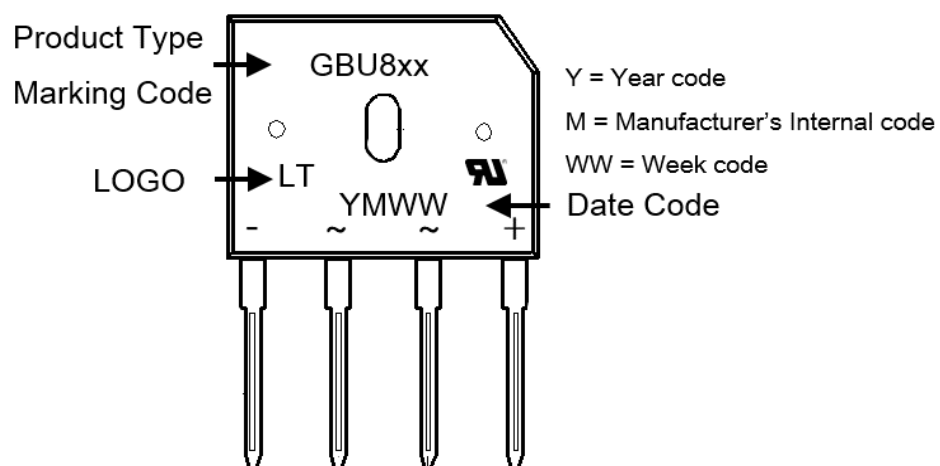
FIG.6 - NON-REPETITIVE SURGE CURRENT



## Ordering Information :

Part Number	Case	Packaging
GBU806_HF	GBU	20/Tube
GBU808_HF	GBU	20/Tube
GBU810_HF	GBU	20/Tube

## Marking Information :



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