

**GLASS PASSIVATED BRIDGE RECTIFIERS**

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

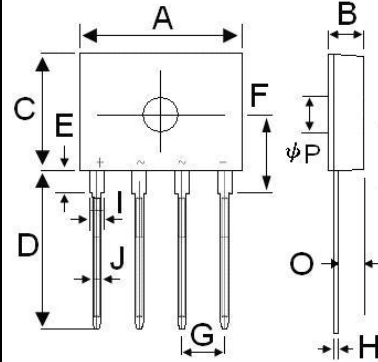
**FEATURES**

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- UL recognized file # E95060

**MECHANICAL DATA**

- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Polarity indicator: As marked on body
- Weight: 1.33 grams

**GBP**



GBP		
Dim.	Min.	Max.
A	14.2	14.7
B	2.90	3.30
C	10.1	10.7
D	13.8	14.4
E	1.80	2.20
F	6.65	7.25
G	3.71	3.91
H	0.40	0.60
I	1.20	1.40
J	0.64	0.84
O	1.80	2.40
P	3.1 $\mu$	3.3 $\mu$

All Dimensions 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 average forward rectified current @ $T_A=25^\circ\text{C}$	$I_{(AV)}$	8 1.9	A
Peak forward surge current single half sine-wave superimposed on rated load. @ $T_J=25^\circ\text{C}$	$I_{FSM}$	165 330	A
$I^2t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2t$	112.9	$\text{A}^2\text{S}$
Operation and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITIONS		SYMBOL	MAX.	UNIT
Forward voltage	$I_F=4.0\text{ A}$	$T_J=25^\circ\text{C}$	$V_F$	1.0	V
Leakage current	$V_R=1000\text{ V}$	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	1.0 100	$\mu\text{A}$
Typical junction capacitance (Note1)			$C_J$	45	pF

**THERMAL CHARACTERISTICS**

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical thermal resistance (without heatsink)	$R_{thJ_C}$	13	$^\circ\text{C/W}$
	$R_{thJ_L}$	17	
	$R_{thJ_A}$	35	
Typical thermal resistance (with heatsink)(Note4)	$R_{thJ_C}$	3	$^\circ\text{C/W}$
	$R_{thJ_L}$	6	
	$R_{thJ_A}$	8	

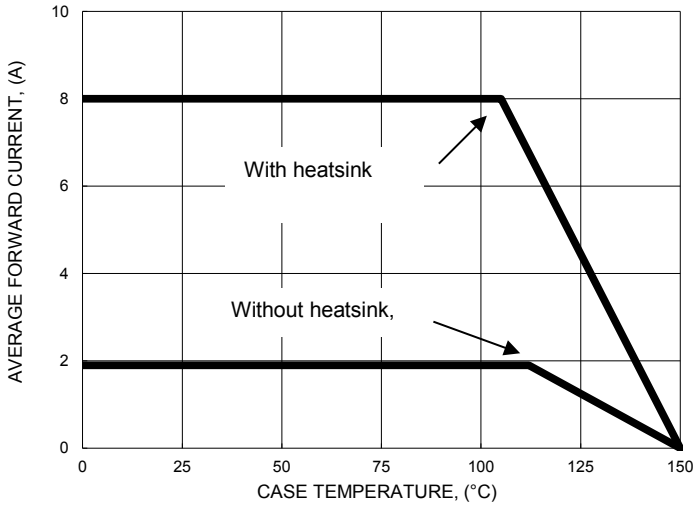
**Note :**

- (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) Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
- (4) Unit mounted on attached copper pad 200mm \* 200mm \* 7mm fin type heatsink.

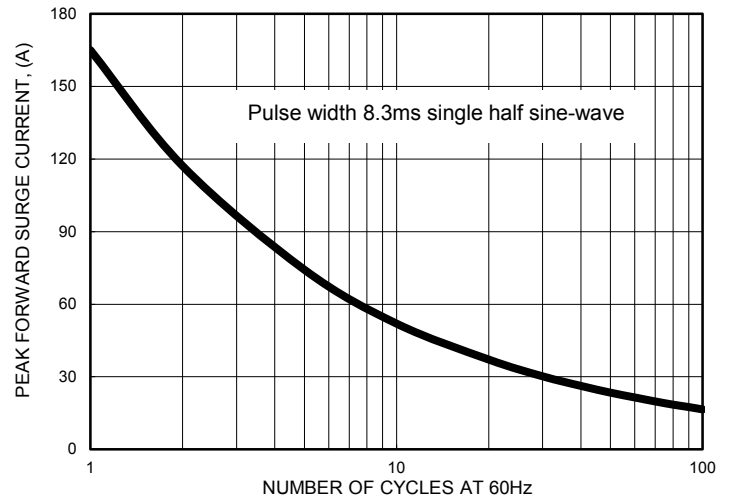
REV-1, Sept-2021, KBDG14

**RATING AND CHARACTERISTIC CURVES**  
**GBP810(LS)**

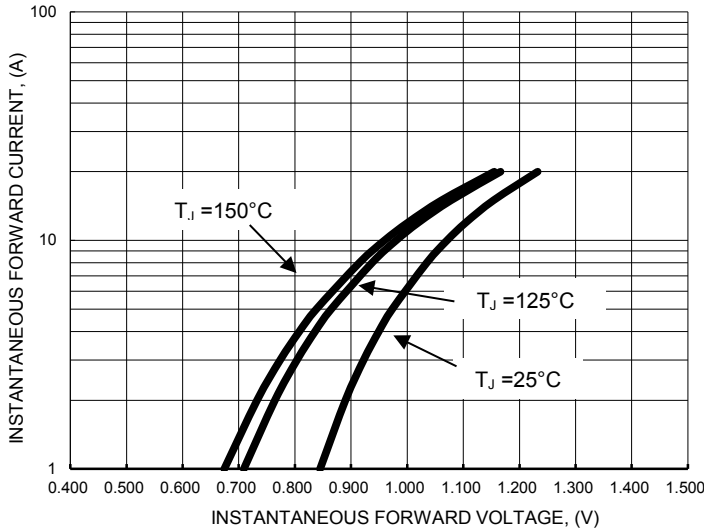
**FIG.1- FORWARD CURRENT DERATING CURVE**



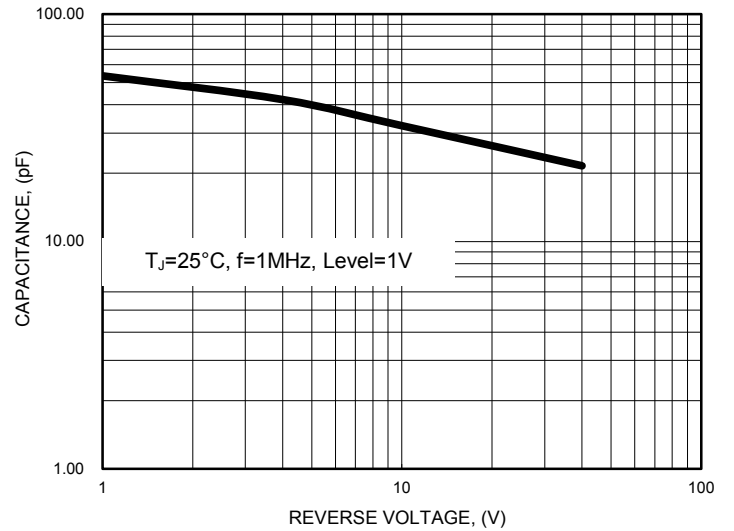
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



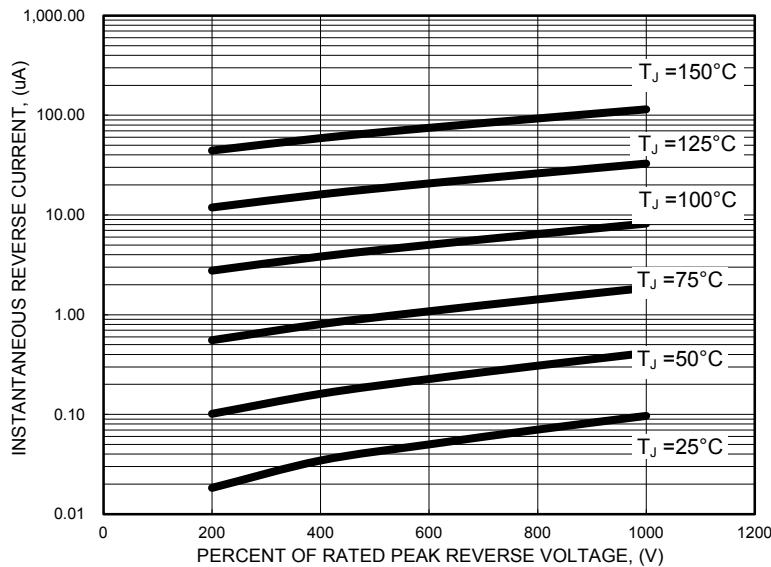
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



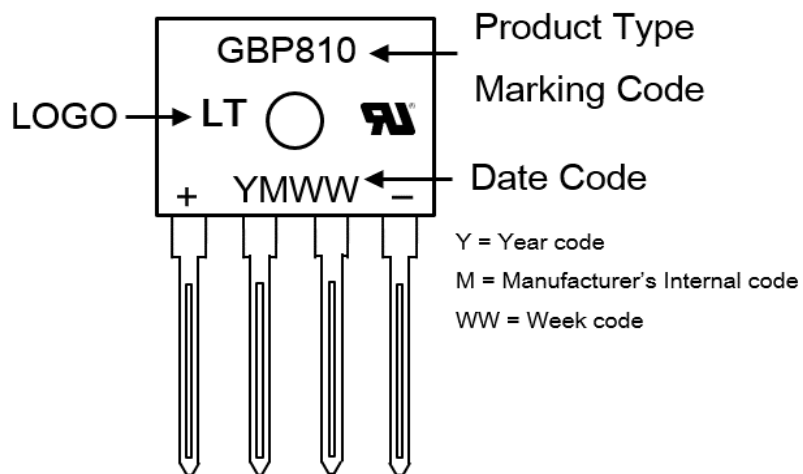
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**Ordering Information :**

Part Number	Case	Packaging
GBP810_HF	GBP	35 Pieces/Tube

**Marking Information :**



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