

GLASS PASSIVATED BRIDGE RECTIFIER

**REVERSE VOLTAGE – 400 to 1000 Volts
FORWARD CURRENT – 8.0 Amperes**

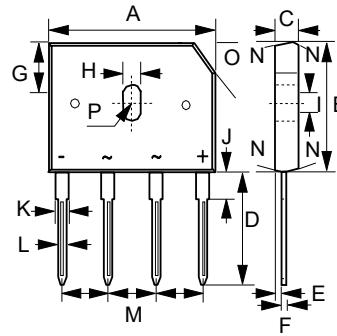
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- 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	GBU804	GBU806	GBU808	GBU810	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	400	600	800	1000	V
Average rectified output current per device	$I_{(AV)}$	8.0 3.2				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	@ $T_A=25^\circ C$ @ $T_A=125^\circ C$ 220 200				A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	I_{FSM}	@ $T_A=25^\circ C$ @ $T_A=125^\circ C$ 440 400				A
$I^2 t$ rating for fusing (t = 8.3ms)	$I^2 t$	200				A ² 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)	$I_F = 4A$ $I_F = 8A$ $T_A = 25^\circ C$	V_F	1.0 1.2	V
Leakage current	V_R at rated $T_A = 25^\circ C$ $T_A = 125^\circ C$ (Note1)	I_R	5 500	uA
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.

RATING AND CHARACTERISTIC CURVES GBU804 thru GBU810



FIG.1 - FORWARD CURRENT DERATING CURVE

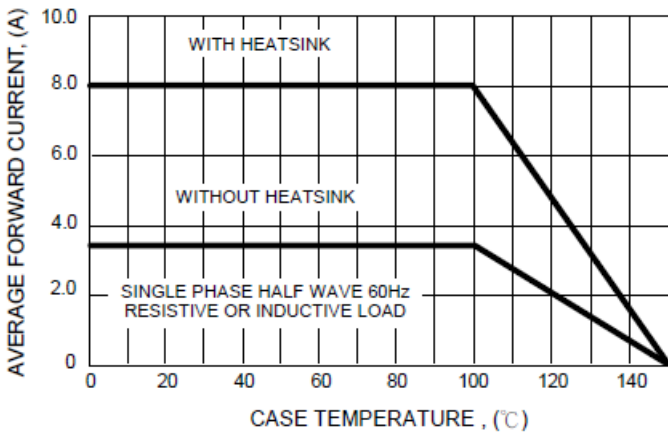


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

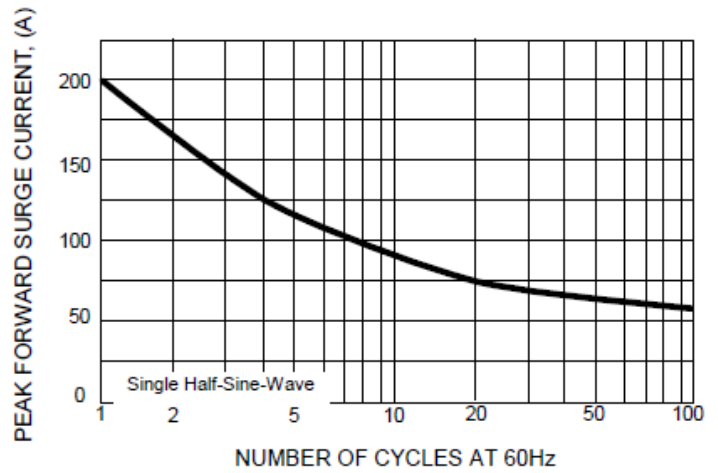


FIG.3 - TYPICAL JUNCTION CAPACITANCE

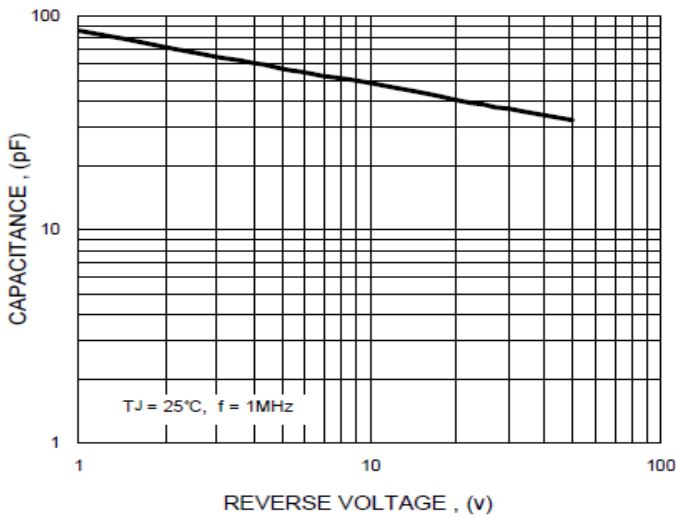


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

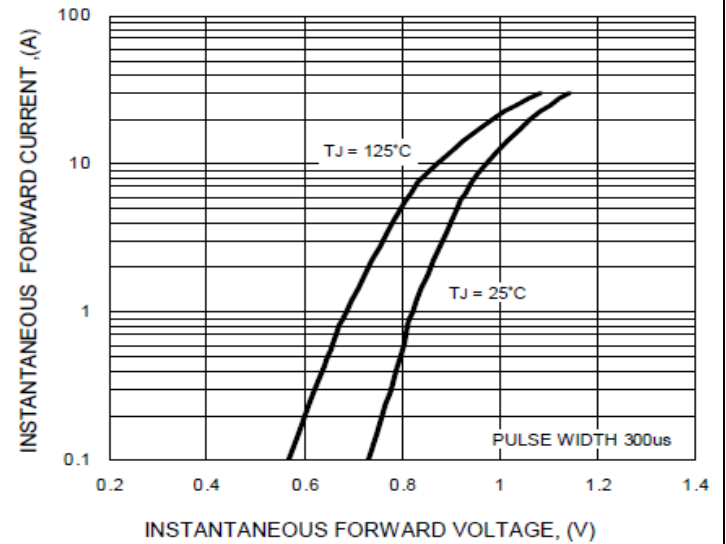


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

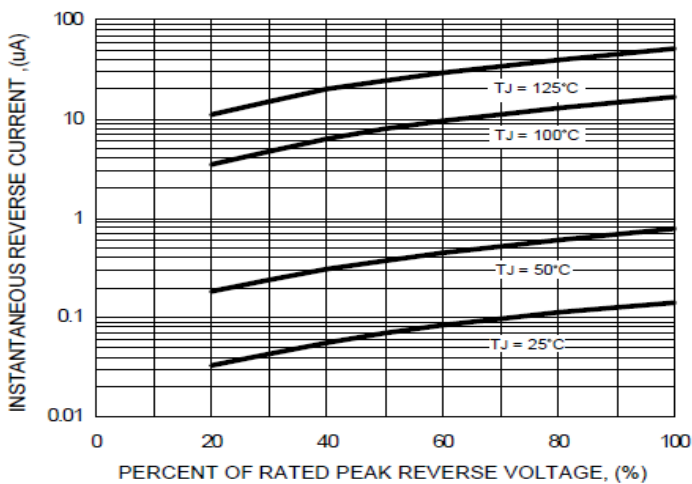
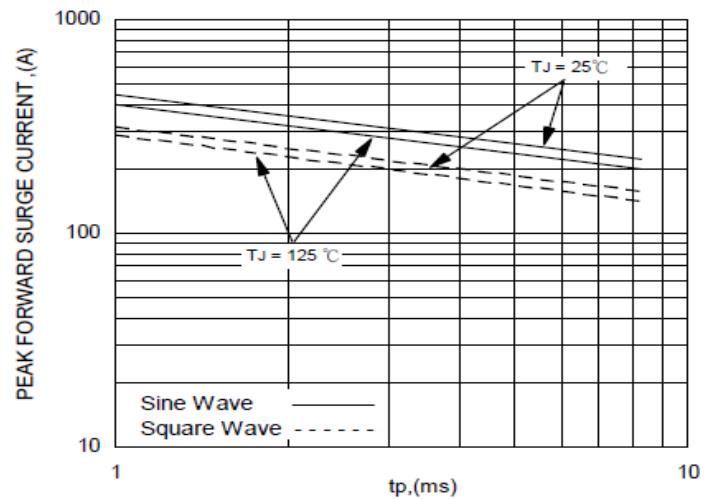


FIG.6 - NON-REPETITIVE SURGE CURRENT



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