

**GLASS PASSIVATED BRIDGE RECTIFIERS**

**REVERSE VOLTAGE – 400 to 1000 Volts  
FORWARD CURRENT – 4.0 Amperes**

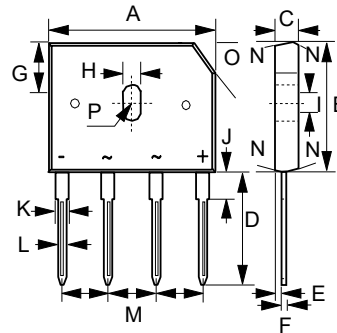
**FEATURES**

- 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	0.76	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	GBU404	GBU406	GBU408	GBU410	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	$I_{(AV)}$	4.0 2.4				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	@ $T_A=25^\circ C$ @ $T_A=125^\circ C$				A
Peak forward surge current 1.0ms single half sine-wave superimposed on rated load	$I_{FSM}$	@ $T_A=25^\circ C$ @ $T_A=125^\circ C$				A
$I^2 t$ rating for fusing (t = 8.3ms)	$I^2 t$	106				A <sup>2</sup> S
Storage, Operating temperature range	$T_J, T_{STG}$	-55 to +150				°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP. MAX	UNIT
Forward voltage (Note1)	$I_F = 2A$ $T_A = 25^\circ C$	$V_F$	1.0	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)		$C_J$	40	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (without heatsink)	$R_{thJA}$	15	°C/W
Typical thermal resistance (Note3)	$R_{thJL}$	3.0	
	$R_{thJC}$	3.0	

**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 50 mm \* 50 mm \* 1.6mm Cu Plate heatsink.

**RATING AND CHARACTERISTIC CURVES**  
**GBU404 thru GBU410**



FIG.1 - FORWARD CURRENT DERATING CURVE

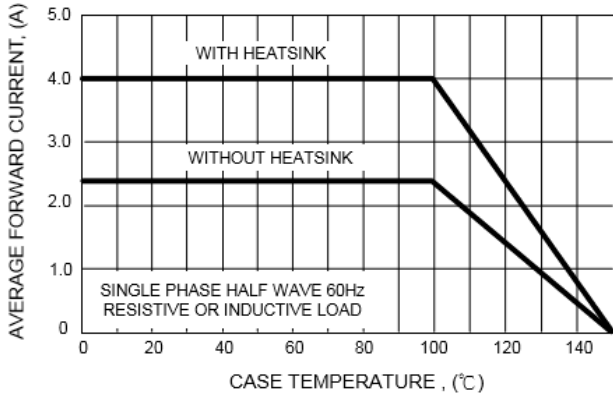


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

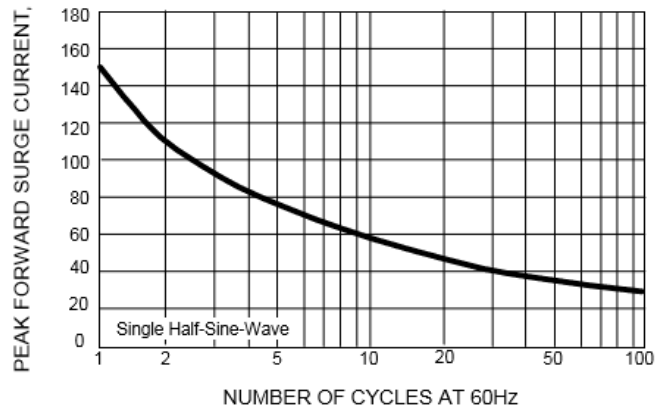


FIG.3 - TYPICAL JUNCTION CAPACITANCE

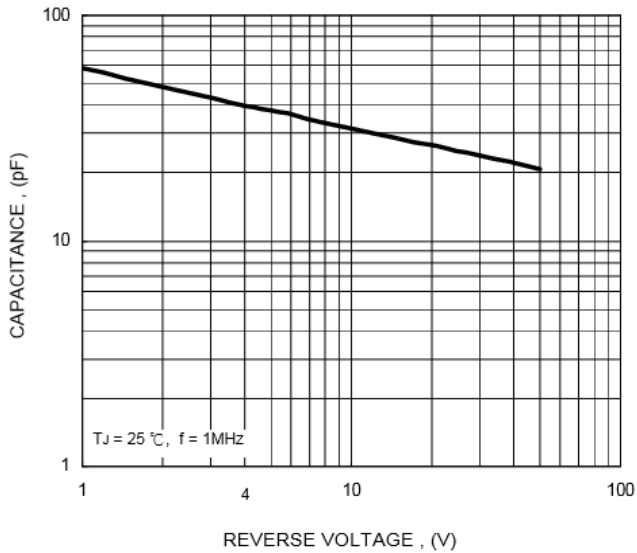
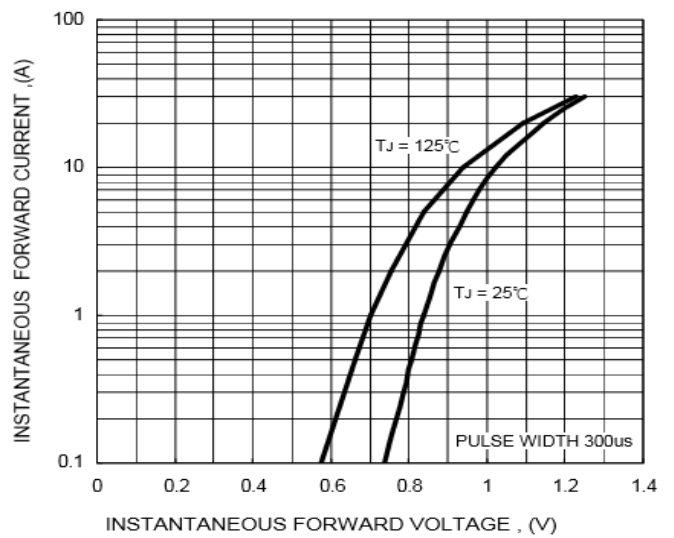


FIG.4 - TYPICAL FORWARD CHARACTERISTICS



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