



# GBL4005 THRU GBL410

## GLASS PASSIVATED BRIDGE RECTIFIER

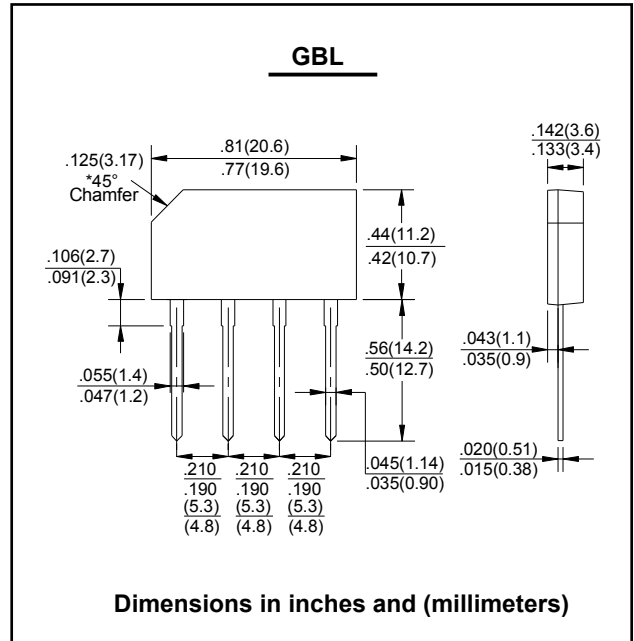
Reverse Voltage - 50 to 1000 Volts    Forward Current - 4.0 Ampere

### FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low reverse leakage current
- Low forward voltage drop
- High surge current capability

### MECHANICAL DATA

- Case: Molded plastic, GBL
- Terminals: Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	GBL 4005	GBL 401	GBL 402	GBL 404	GBL 406	GBL 408	GBL 410	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>C</sub> = 50°C	I <sub>O</sub>	4.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							A
Forward Voltage per leg @I <sub>F</sub> = 2.0A	V <sub>FM</sub>	1.1							V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>R</sub>	5.0 500							μA
Typical Thermal Resistance per leg (Note 1)	R <sub>θJA</sub>	22							°C/W
Typical Thermal Resistance per leg (Note 2)	R <sub>θJL</sub>	3.5							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note: 1. Mounted on 75 x 75 x 3.0mm Al. plate.  
2. Mounted on PCB at 9.5mm lead length with 12mm<sup>2</sup> copper pad.



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## RATINGS AND CHARACTERISTIC CURVES

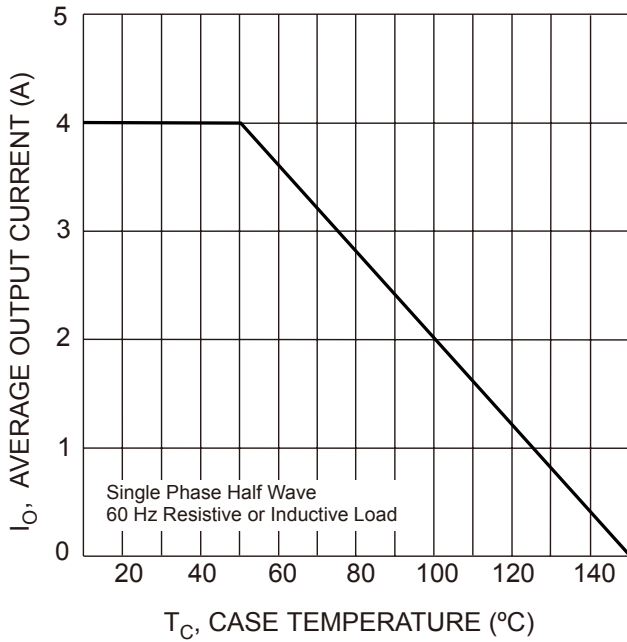


Fig. 1 Forward Current Derating Curve

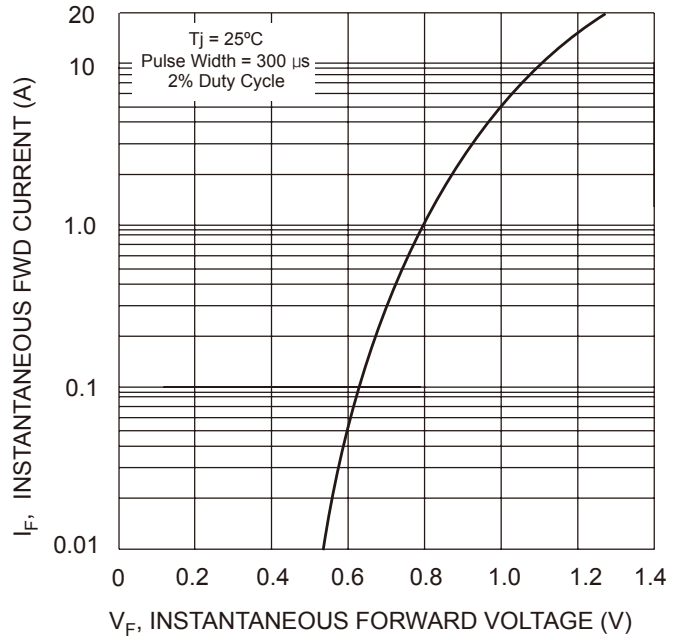


Fig. 2 Typical Forward Characteristics, per element

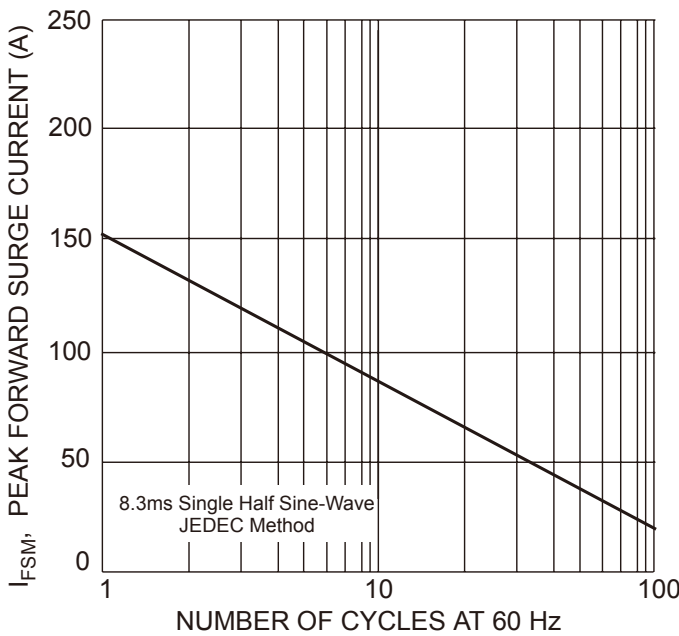


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

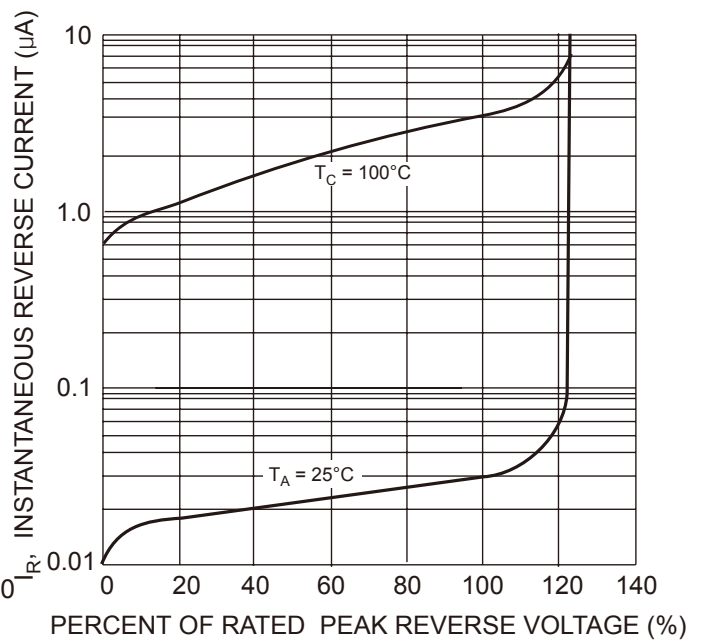


Fig. 4 Typical Reverse Characteristics, per element