



# GBL404~GBL410

## Glass Passivated Bridge Rectifiers

**VOLTAGE** 400 to 1000 Volt **CURRENT** 4 Ampere

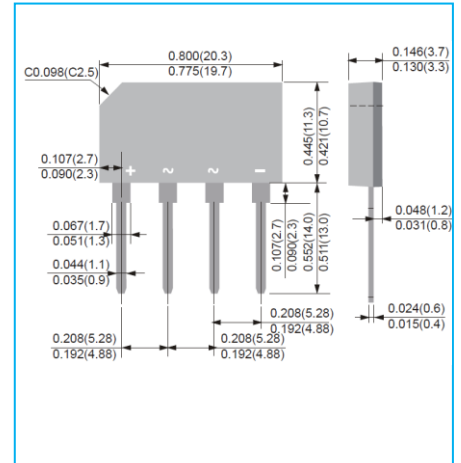
**GBL** Unit: Inch(mm)

### FEATURES

- UL Recognized File #E228882
- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Glass passivated chip junction

### MECHANICAL DATA

- Case: GBL
- Terminals: Leads solderable per MIL-STD-750, Method 2026
- Polarity: As marked on body
- Weight: 2.24g



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GBL 404	GBL 406	GBL 408	GBL 410	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	4				A
Peak forward surge current, 8.3 ms single half sine-wave	$I_{FSM}$	150				A
Rating of fusing ( $t < 8.3ms$ ) (Note 1)	$I^2t$	93				$A^2s$
Maximum instantaneous forward voltage per diode $I_F = 2 A$ $I_F = 4 A$	$V_F$	1 1.1				V
Maximum reverse current @ rated $V_R$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	$I_R$	5 500				$\mu A$
Typical junction capacitance (Note 2)	$C_J$	40				pF
Typical thermal resistance (Note 3) (Note 4)	$R_{\theta JA}$ $R_{\theta JC}$	34 8				$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 to +150				$^\circ C$
Storage temperature range	$T_{STG}$	- 55 to +150				$^\circ C$

Note 1: Non-repetitive, for  $t > 1ms$  and  $< 8.3ms$ .

Note 2: Measured at 1MHz and applied Reverse bias of 4V DC

Note 3: Products installed on the PCB, Without heatsink °

Note 4: Products installed on aluminum plate heatsink °



# GBL404~GBL410

## TYPICAL CHARACTERISTIC CURVES

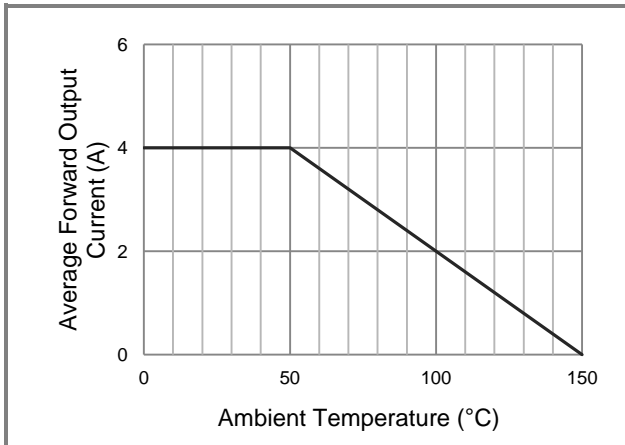


Fig.1 Forward Current Derating Curve

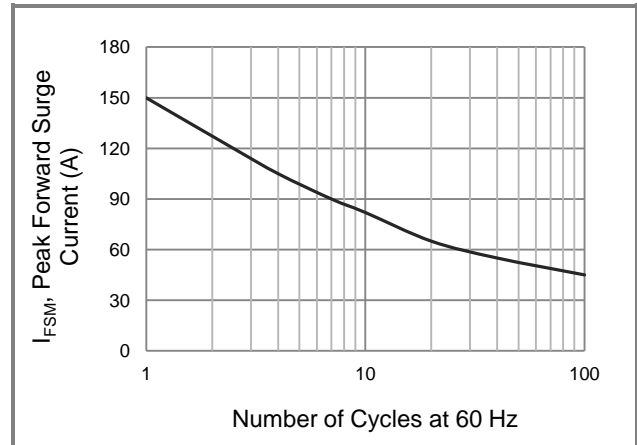


Fig.2 Maximum Forward Surge Current

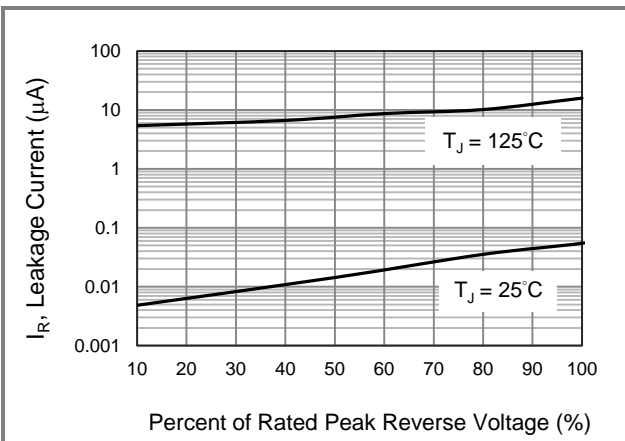


Fig.3 Typical Reverse Characteristics

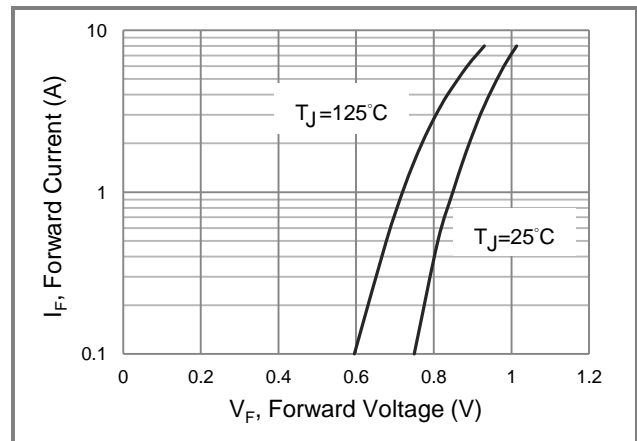


Fig.4 Typical Forward Characteristics

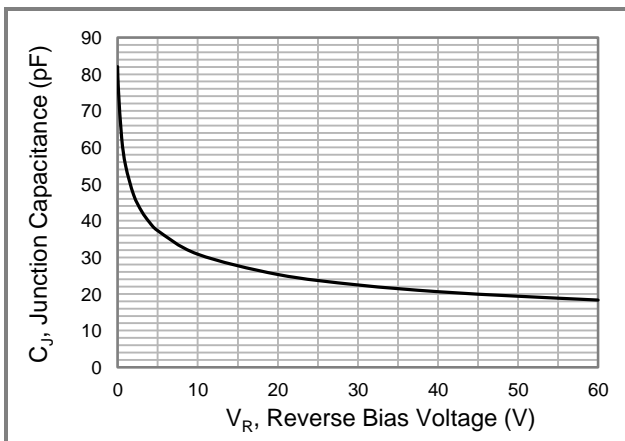


Fig.5 Typical Junction Capacitance



## GBL404~GBL410

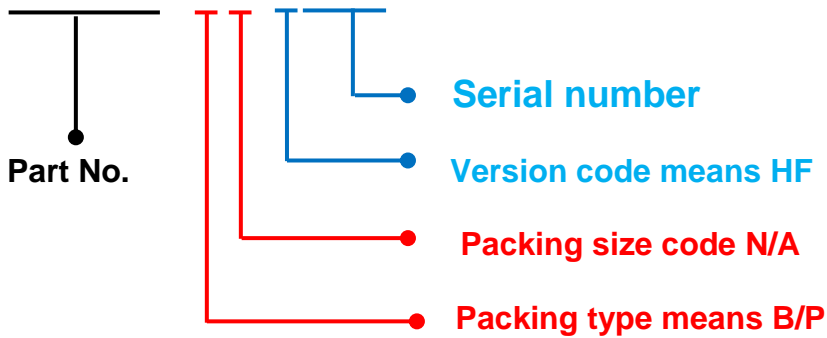
### Part No\_packing code\_Version

GBL404\_B0\_00001

GBL404\_B0\_10001

For example :

**GBL404\_B0\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>st</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>st</sup> ~5 <sup>st</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## GBL404~GBL410

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.