



## GBL6005 THRU GBL610

PINGWEI ENTERPRISE

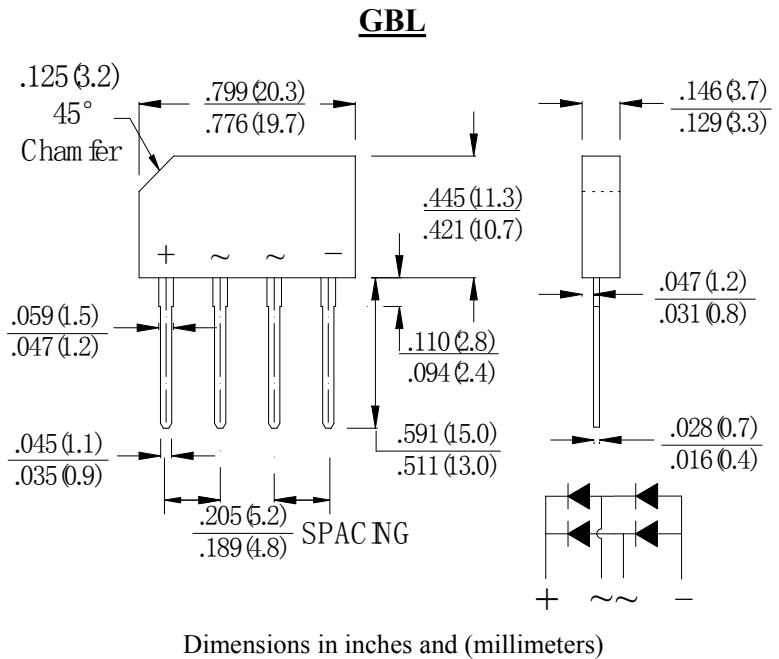
### SINGLE PHASE 6.0AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

#### FEATURE

- . UL Listed Under Recognized Component Index, File Number E338195
- . Glass passivated chip junctions
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications

#### MECHANICAL DATA

- . Case: GBL
- . Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.
- Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Marked on body
- . Weight: 2.1 grams
- . 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, derate current by 20%

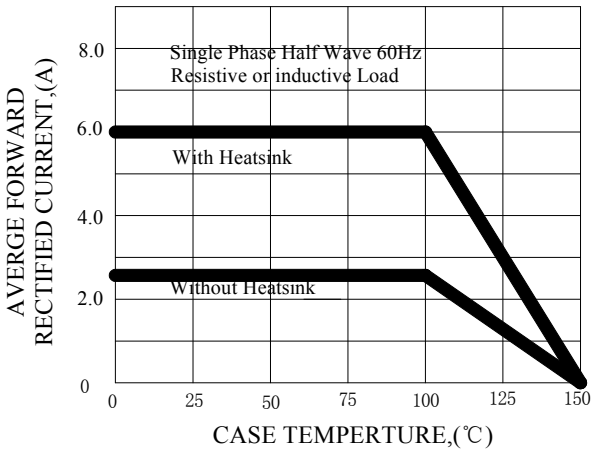
Type Number	SYM BOL	GBL 6005	GBL 601	GBL 602	GBL 604	GBL 606	GBL 608	GBL 610	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{F(AV)}$	6.0 2.6							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	175							A
Maximum Forward Voltage @ 6.0A DC Drop per element @ 3.0A DC	$V_F$	1.1 1.0							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 500.0							$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	127							$\text{A}^2\text{Sec}$
Typical Junction Capacitance (Note 1)	$C_J$	55							pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	4.2							$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150							$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150							$^\circ\text{C}$

#### Note:

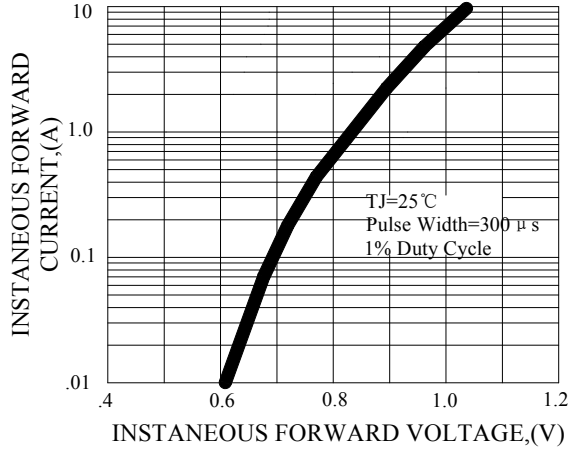
1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

**RATING AND CHARACTERISTIC CURVES (GBL6005 THRU GBL610)**

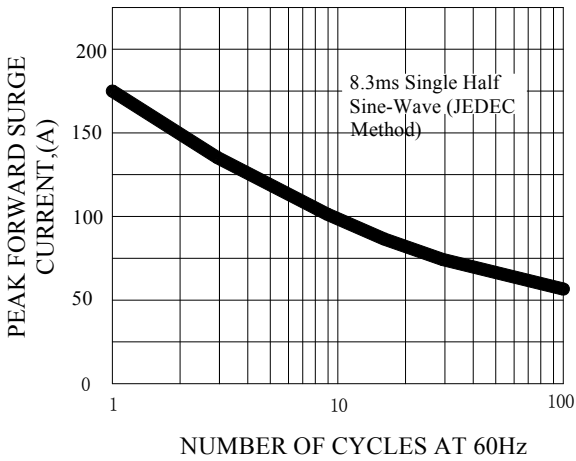
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



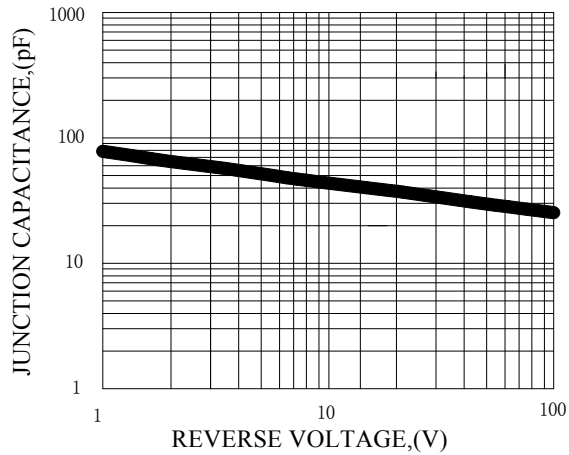
**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4-TYPICAL JUNCTION CAPAOTANCE**



**FIG.5-TYPICAL REVERSE CHARACTERISTICS**

