

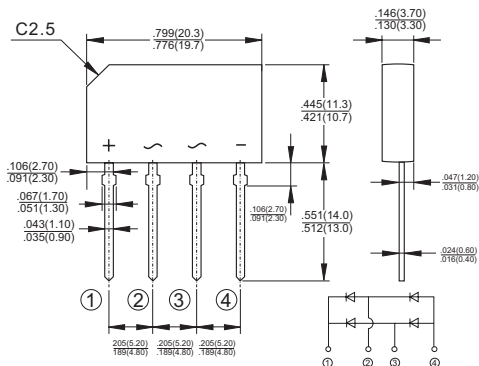


# GBL005 - GBL10

Single Phase 4.0 AMPS.  
Glass Passivated Bridge Rectifiers  
**GBL**

## Features

- ✦ UL Recognized File # E-96005
- ✦ Glass passivated chip junction
- ✦ Ideal for printed circuit board
- ✦ High case dielectric strength
- ✦ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✦ Typical IR less than 0.1  $\mu$ A
- ✦ High surge current capability
- ✦ High temperature soldering guaranteed: 260°C / 10 seconds / .375", (9.5mm) lead lengths.



## Mechanical Data

- ✦ Case: Molded plastic body.
- ✦ Terminals: Pure tin plated, Lead free. leads solderable per MIL-STD-750, Method 2026.
- ✦ Weight: 0.071 ounce, 2.0 grams
- ✦ Mounting position: Any

Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

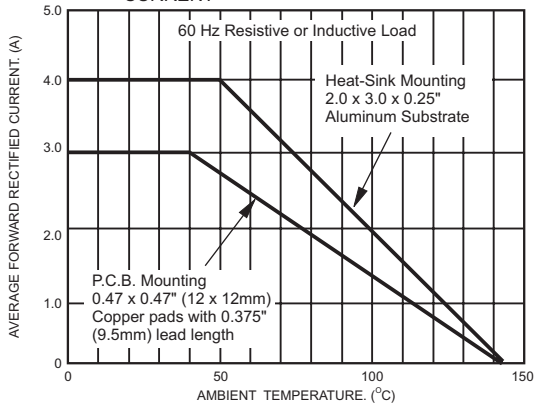
Type Number	Symbol	GBL 005	GBL 01	GBL 02	GBL 04	GBL 06	GBL 08	GBL 10	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 50^\circ\text{C}$ (Note 1) @ $T_A = 40^\circ\text{C}$ (Note 2)	$I_{(AV)}$					4.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) $T_J=150^\circ\text{C}$	$I_{FSM}$					150			A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$					93			$\text{A}^2\text{sec}$
Maximum Instantaneous Forward Voltage @ 2.0A @ 4.0A	$V_F$					1.0			V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$					5.0			$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance Per Leg at 4.0V, 1MHz	$C_j$					95	40		pF
Typical Thermal Resistance Per Leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$					22			$^\circ\text{C/W}$
Operating Temperature Range	$T_J$					-55 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$					-55 to +150			$^\circ\text{C}$

Notes 1. Unit Mounted on 2" x 3" x 0.25" Al. plate.

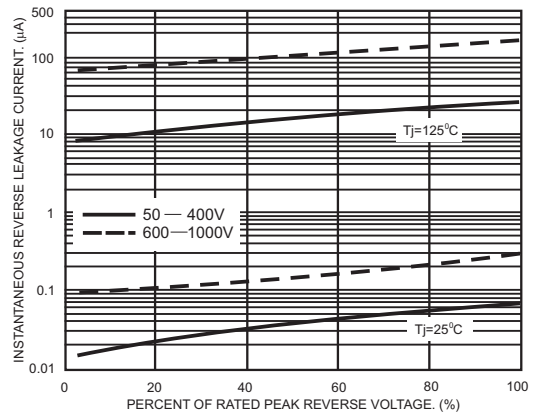
2. Units Mounted on P.C.B. 0.5 x 0.5 " (12x12mm) Copper Pads, 0.375"(9.5mm) Lead Length

## RATINGS AND CHARACTERISTIC CURVES (GBL005 THRU GBL10)

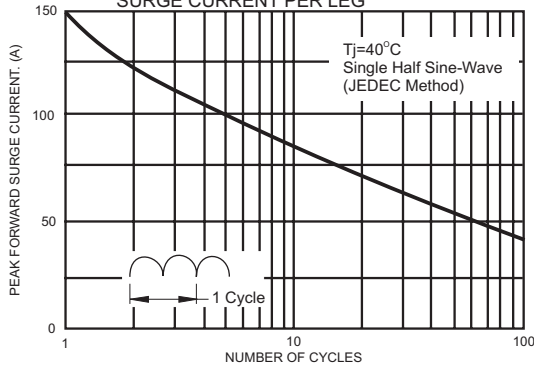
**FIG.1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



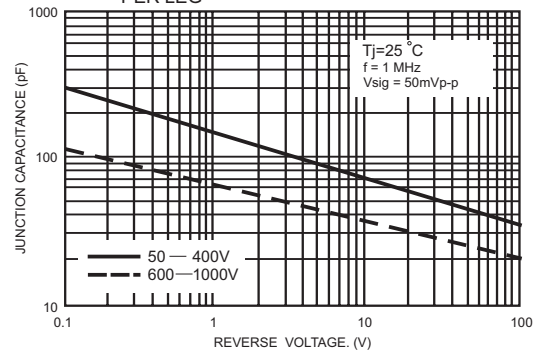
**FIG.2- TYPICAL REVERSE CHARACTERISTICS**



**FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG.5- TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG**

