

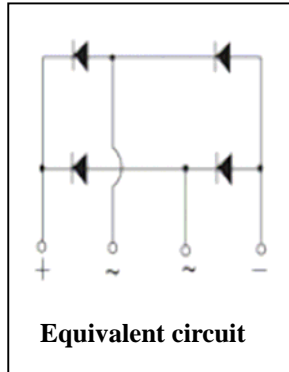
**Glass passivated Single Phase Bridge Rectifiers**

# GBL4A thru GBL4M

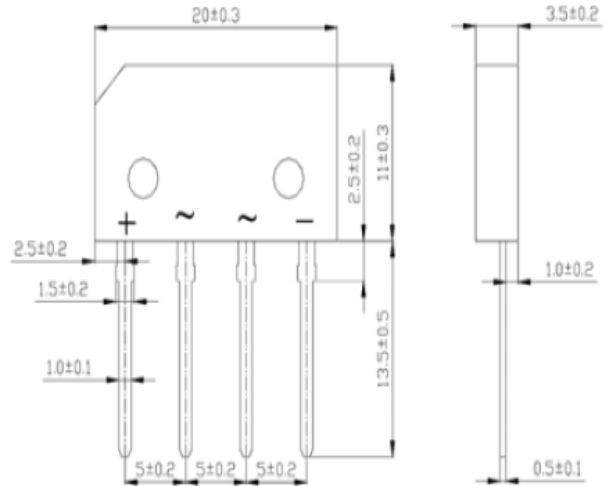
**Reverse Voltage 50 to 1000V Forward Current 4 Amps**

**Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability


**Mechanical Data**

- Case: GBL(2S) Molded plastic body
- Terminals: Matte tin plated leads, solderable per MIL-STD-750, method 2026
- High temperature soldering guaranteed : 260°C/10 seconds, 0.375"(9.5mm) lead length, 5lbs(2.3kg) tension
- Mounting position: Any.
- Polarity : shown on front side of case, positive lead by beveled corner.
- Weight: 2.1 gram, 0.074 oz.



Package outline dimensions in millimeters

**Maximum Ratings and Electrical Characteristics**

(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Type							Units	
		GBL4A	GBL4B	GBL4D	GBL4G	GBL4J	GBL4K	GBL4M		
Repetitive 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 instantaneous forward voltage drop per leg, $I_F=1A$	$V_F$	1							V	
Maximum average forward rectified output current at	$I_{F(AV)}$	$T_C=50^\circ C$							4.0 (Note 1)	A
		$T_A=40^\circ C$							3.0 (Note 2)	
Peak forward surge current @ 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150							A	
Rating for fusing ( $t < 8.3ms$ )	$I^2 t$	93							$A^2 s$	
Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	$T_A=25^\circ C$							10	$\mu A$
		$T_A=125^\circ C$							500	
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$	32 (Note 2)							$^\circ C / W$	
		3.5 (Note 1)								
Storage temperature range	$T_{stg}$	-55 ~ +150							$^\circ C$	
Operating junction temperature range	$T_J$	-55 ~ +150							$^\circ C$	

Notes : 1. Unit mounted on 3.0"×3.0"×0.11" thick (7.5 cm×7.5cm×0.3cm) Al plate

2. Unit mounted on PCB at 0.375"(9.5mm) lead length and 0.5"×0.5"(13mm×13mm) copper pads.

## Typical Characteristics

Ratings and Characteristics Curves (TA = 25°C unless otherwise noted)

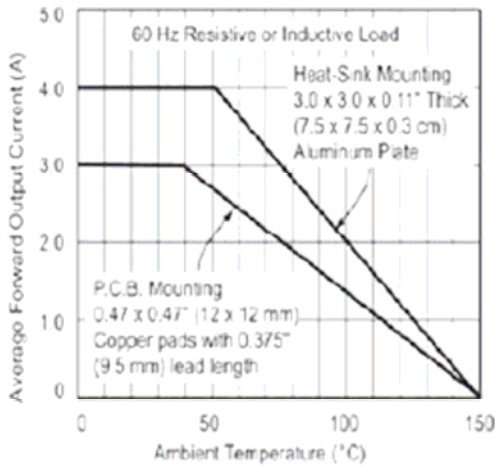


Figure 1. Derating Curves Output Rectified Current

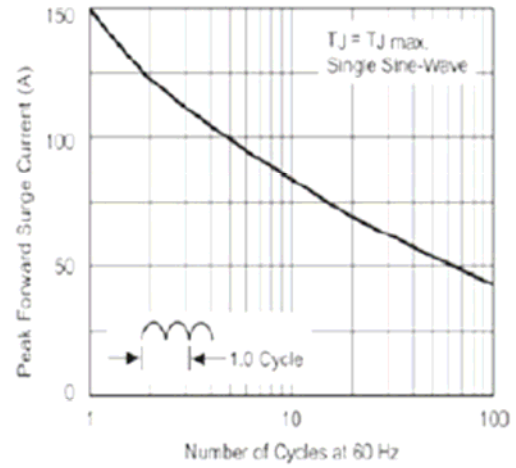
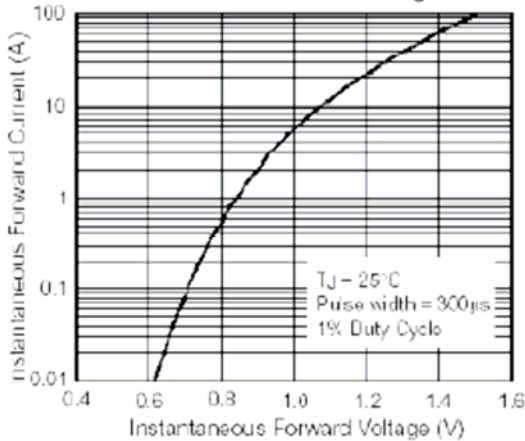
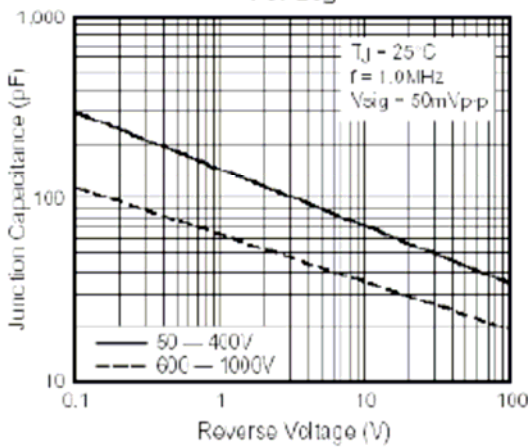


Figure 2. Maximum Non-Replicative Peak Forward Surge Current Per Leg

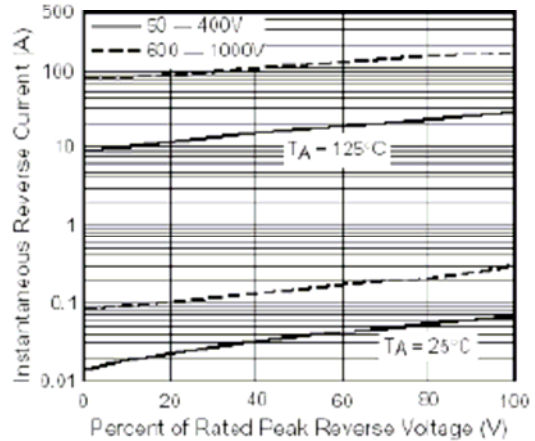
**Fig. 3 - Typical Forward Voltage Characteristics Per Leg**



**Fig. 5 -- Typical Junction Capacitance Per Leg**



**Fig. 4 -- Typical Reverse Leakage Characteristics Per Leg**



**Fig. 6 -- Typical Transient Thermal Impedance Per Leg**

