

Glass passivated Single Phase Bridge Rectifiers

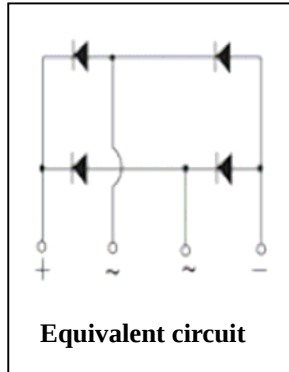
GBL4A thru GBL4M

Reverse Voltage 50 to 1000V Forward Current 4 Amps



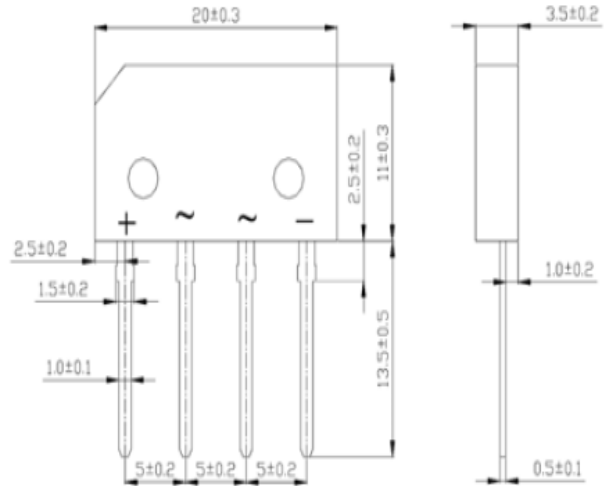
Features

- 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: 2.1gram, 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	T _C =50°C	I _{F(AV)}	4.0 (Note 1)						A	
	T _A =40°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	T _A =25°C	I _R	10						μA	
	T _A =125°C		500							
Typical thermal resistance per leg		R _{θJA} R _{θJL}	32 (Note 2) 3.5 (Note 1)						°C /W	
Storage temperature range		T _{stg}	-55 ~ +150						°C	
Operating junction temperature range		T _J	-55 ~ +150						°C	

Notes : 1. Unit mounted on 3.0"x3.0"x0.11" thick (7.5 cmx7.5cmx0.3cm) Al plate

2. Unit mounted on PCB at 0.375"(9.5mm) lead length and 0.5"x0.5"(13mmx13mm) copper pads.

Typical Characteristics

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

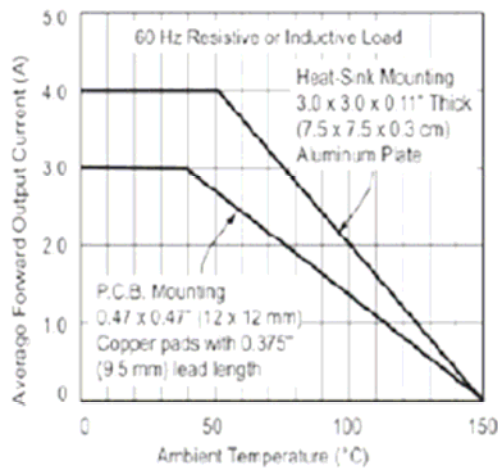


Figure 1. Derating Curves Output Rectified Current

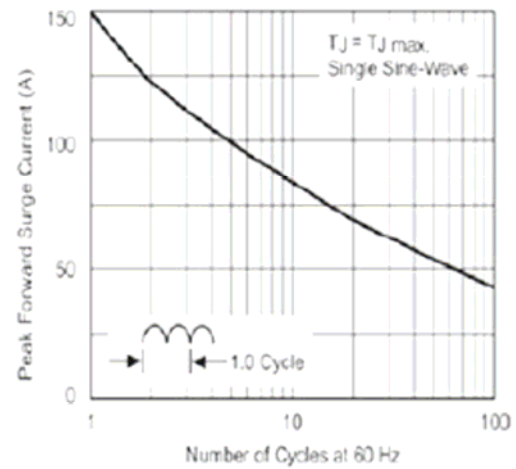


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

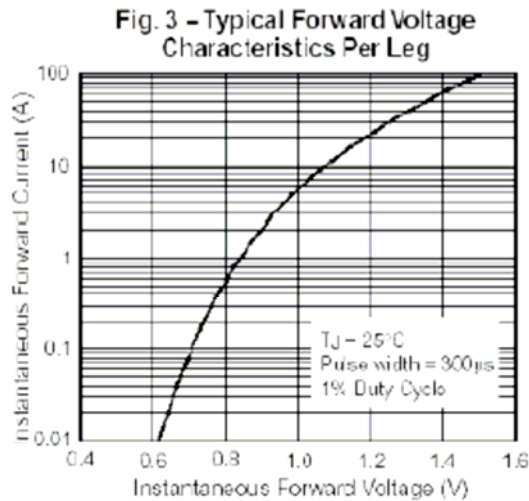


Fig. 3 -- Typical Forward Voltage Characteristics Per Leg

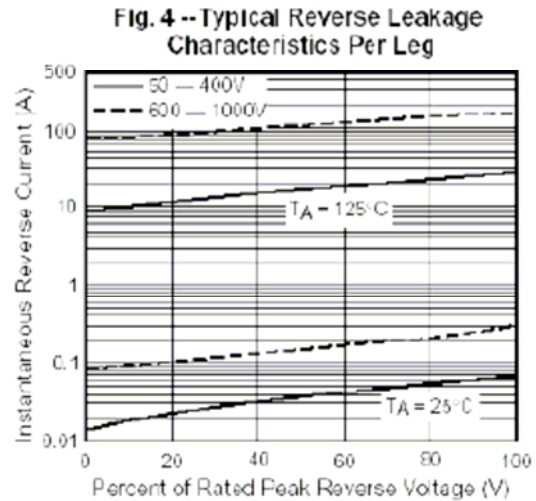


Fig. 4 -- Typical Reverse Leakage Characteristics Per Leg

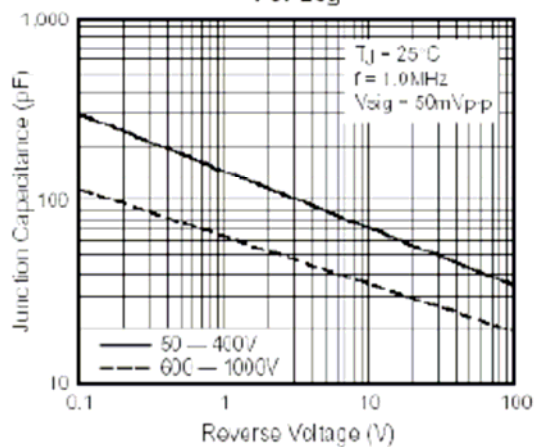


Fig. 5 -- Typical Junction Capacitance Per Leg

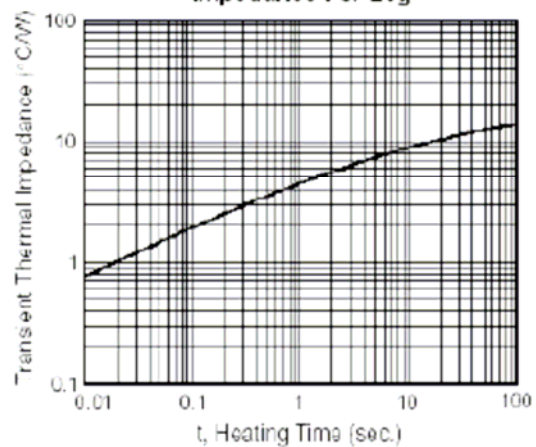


Fig. 6 -- Typical Transient Thermal Impedance Per Leg