GBLA005 THRU GBLA10

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current:4.0A

GULF SEMI

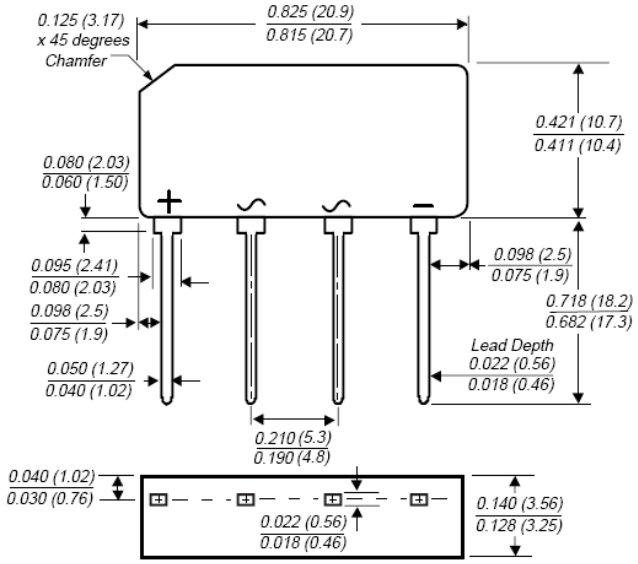
Features

Glass passivated chip junction
High case dielectric strength
High surge current capability
Ideal for printed circuit board

Mechanical Data

Terminal: Plated leads solderable per MIL-STD 202E, Method 208C
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: Polarity symbol marked on body
Mounting position: any

GBL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	Symbol	GBLA 005	GBLA 01	GBLA 02	GBLA 04	GBLA 06	GBLA 08	GBLA 10	units
Maximum repetitive peak reverse voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum average forward Tc = 50℃(Note1) rectified output current Ta = 40℃(Note2)	If(av)	4.0 3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	120							A
Maximum instantaneous forward voltage drop per leg at 4.0A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	60							A^2Sec
Maximum DC reverse current at Ta = 25℃ rated DC blocking voltage per leg Ta = 125℃	Ir	5.0 500							μA
Maximum thermal resistance per leg	Rth(ja) Rth(jc)	47.0 10.0							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit mounted on P.C.B. with 3.0 x 3.0 x 0.11" thick (7.5 x 7.5 x 0.3 cm) Aluminum plate
2. Unit mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5"(12 x 12mm) copper pads
3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Fig. 1 – Derating Curves Output Rectified Current

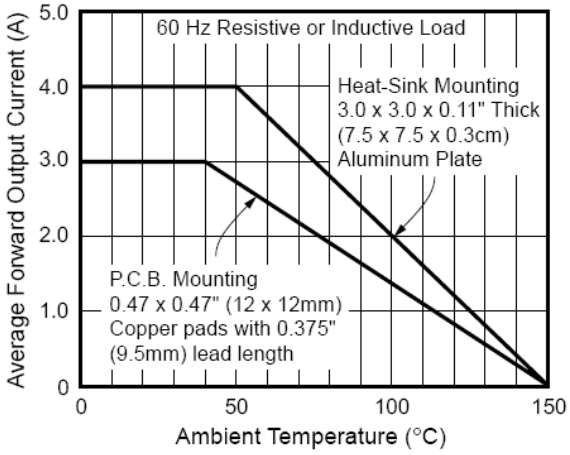


Fig. 2 -- Maximum Non-Repetitive Peak Forward Surge Current Per Leg

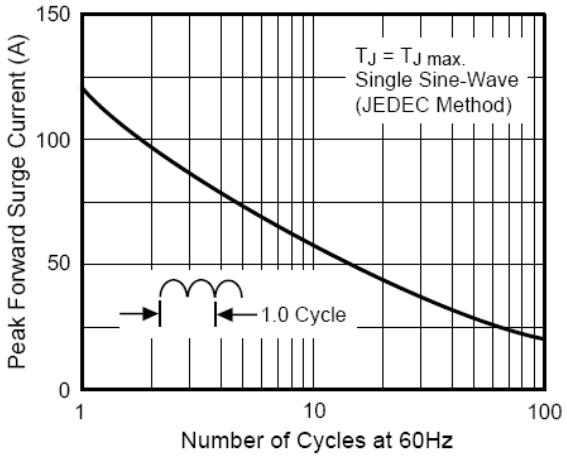


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

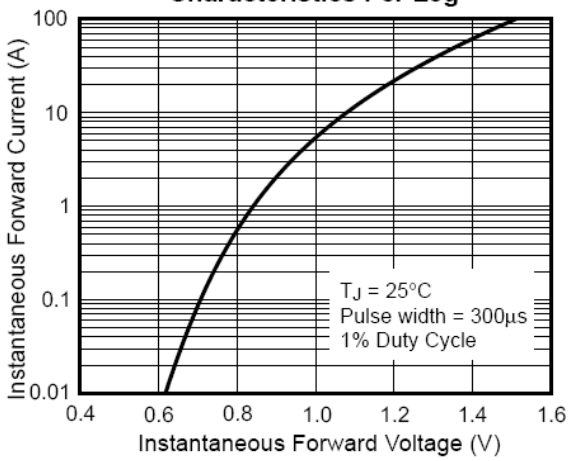


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

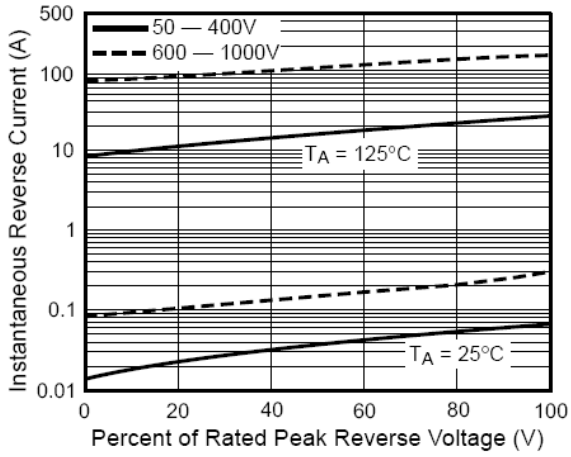


Fig. 5 – Typical Junction Capacitance Per Leg

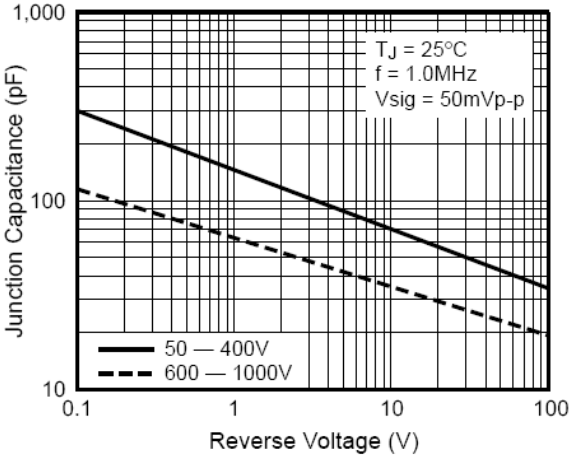


Fig. 6 – Typical Transient Thermal Impedance Per Leg