GBL6005 THRU GBL610

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 6.0A

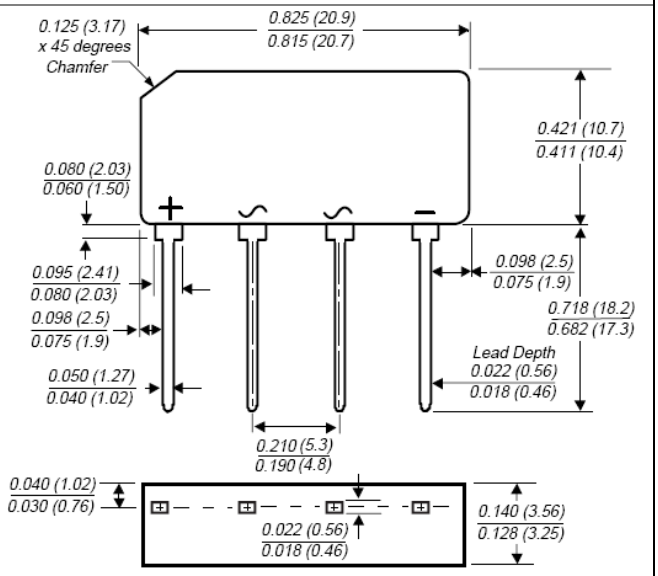
Features

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

Mechanical Data

Terminal: Plated leads solderable per J-STD-002
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)

	Symbol	GBL6 005	GBL6 01	GBL6 02	GBL6 04	GBL6 06	GBL6 08	GBL6 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 rectified output current Tc = 50℃(Note1) Ta = 40℃(Note2)	If(av)	6.0 3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	170							A
Maximum instantaneous forward voltage drop per leg at 3.0A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	120							A^2Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	Ir	5.0 500							μA
Maximum thermal resistance per leg	Rth(ja) Rth(jc)	22 3.5							℃/W
Typical junction capacitance per leg at 4.0V,1MHz	Cj	95				40			pF
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit mounted on P.C.B. with 3.0 x 6.0 x 0.11" thick (7.5 x 15 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

Fig. 1 – Derating Curves Output Rectified Current

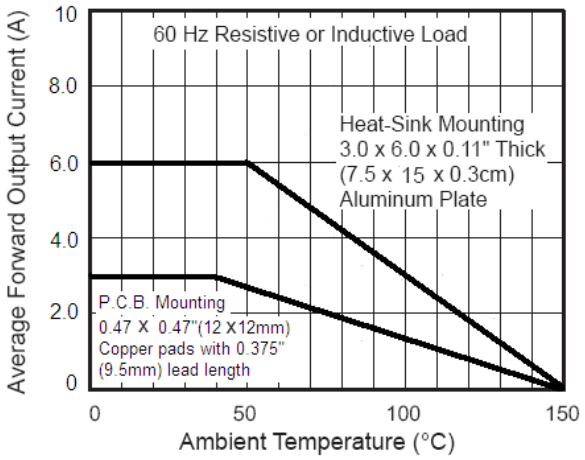


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

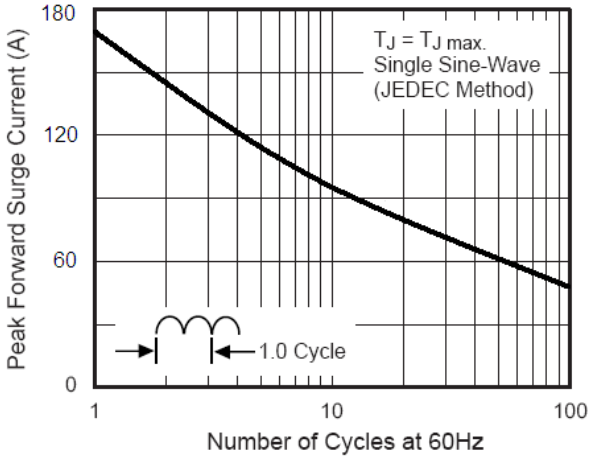


Fig. 3 – Typical Forward Voltage Characteristics Per Leg

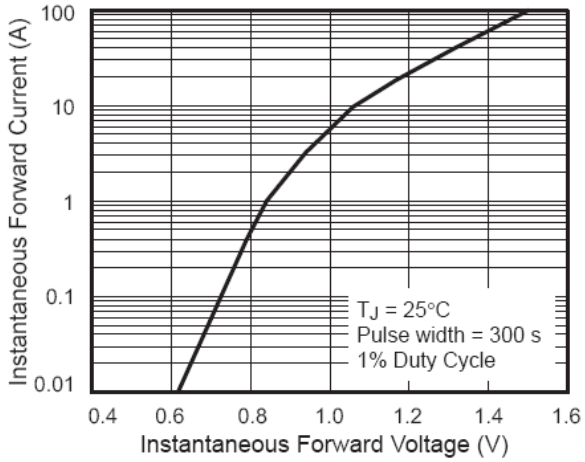


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

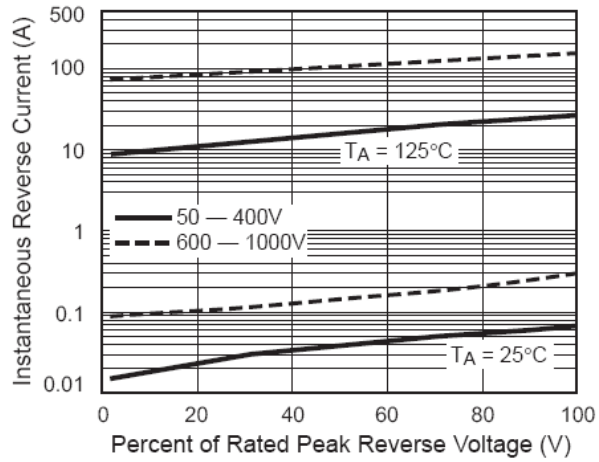


Fig. 5 – Typical Junction Capacitance Per Leg