G5SB05 THRU G5SB100

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 8.0A

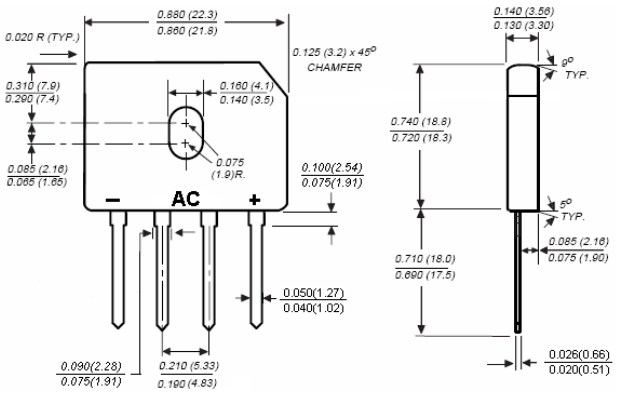
Features

Ideal for printed circuit board
Glass passivated chip junction
High case dielectric strength
High surge overload rating

Mechanical Data

Terminal: Plated leads solderable per MJ-STD-002
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: Polarity symbol marked on body
Mounting position: Thru hole for #6 screw

GBU



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	G5S B05	G5S B10	G5S B20	G5S B40	G5S B60	G5S B80	G5S B100	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 at Tc = 100℃ (Note 1)	If(av)	8.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	200							A
Maximum instantaneous forward voltage drop per leg at 8.0A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	166							A^2Sec
Maximum DC reverse current at rated DC blocking voltage per leg Ta = 25°C Ta = 125°C	Ir	5.0 500							μA
Typical junction capacitance per leg at 4V,1MHz	Cj	211				94			pF
Maximum thermal resistance per leg (Note3)	Rth(ja) Rth(jc)	21 2.2							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit case mounted on 3.2 x 3.2 x 0.12" thick (8.2 x8.2 x 0.3cm) Al. Plate heatsink
2. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
3. Units mounted in free air, no heatsink on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES G5SB05 THRU G5SB100

Fig. 1 – Derating Curve Output Rectified Current

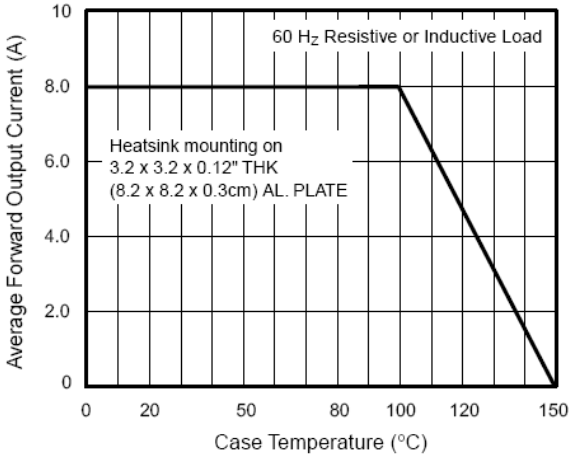


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

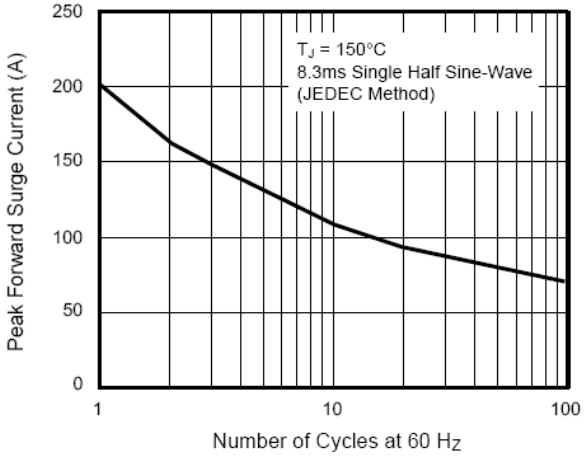


Fig. 3 – Typical Forward Characteristics Per Leg

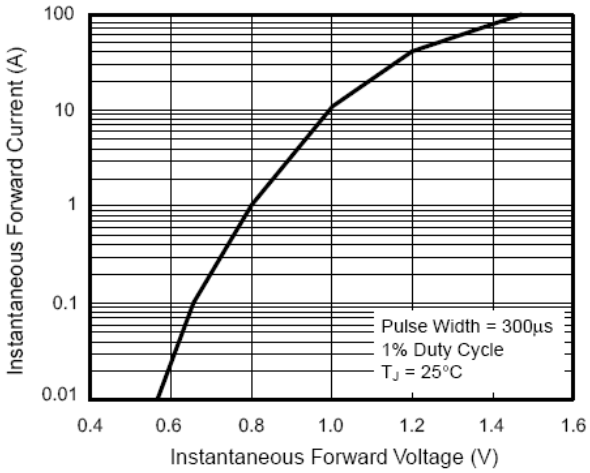


Fig. 4 – Typical Reverse Characteristics Per Leg

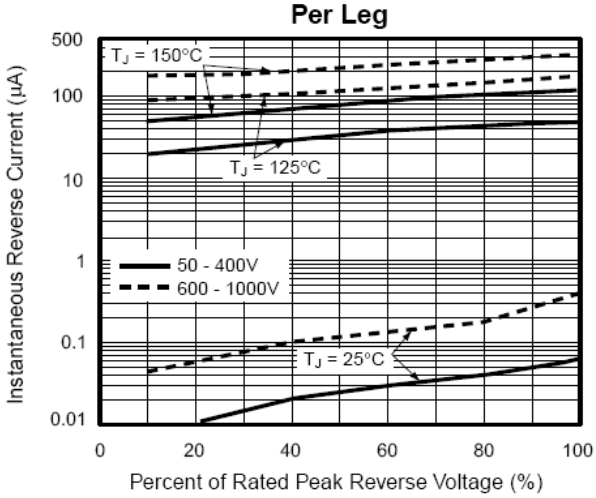


Fig. 5 – Typical Junction Capacitance Per Leg

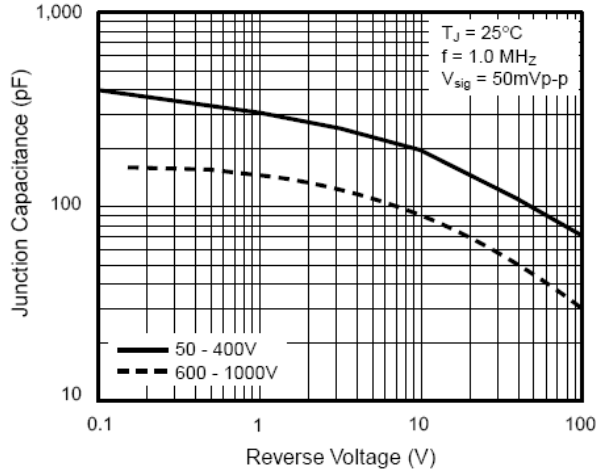


Fig. 6 – Typical Transient Thermal Impedance Per Leg