G3SBA05 THRU G3SBA100

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 4.0A

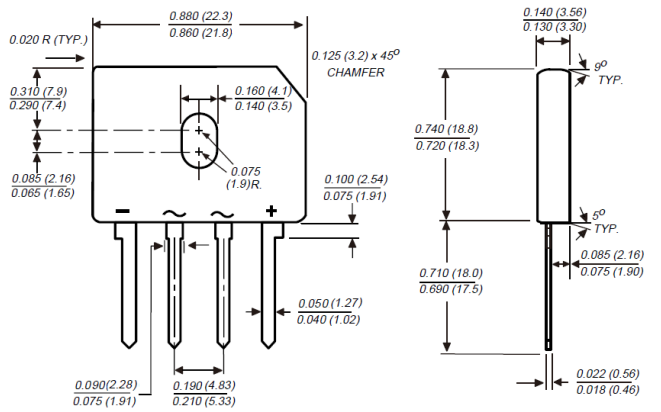
Features

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

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: 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	G3SB A05	G3SB A10	G3SB A20	G3SB A40	G3SB A60	G3SB A80	G3SB A100	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) Ta = 25℃ (Note 2)	If(av)	4.0 2.3							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	80							A
Maximum instantaneous forward voltage drop per leg at 2.0A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	27							A^2Sec
Maximum DC reverse current at Ta = 25°C rated DC blocking voltage per leg Ta = 125°C	Ir	5.0 400							μA
Maximum thermal resistance per leg (Note2) (Note1)	Rth(ja) Rth(jc)	26.0 5.0							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit case mounted on Al. Plate heatsink
2. Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

RATINGS AND CHARACTERISTIC CURVES G3SBA05 THRU G3SBA100

Fig. 1 - Derating Cuve Output Rectified Current

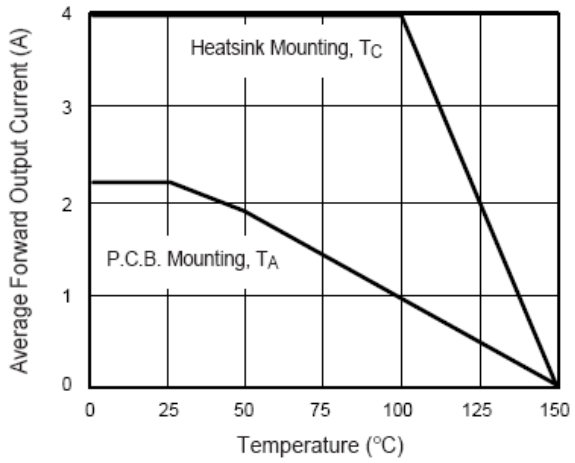


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

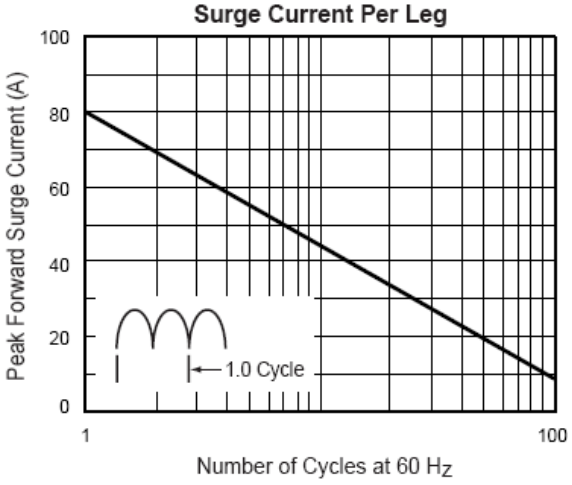


Fig. 3 - Typical Forward Characteristics Per Leg

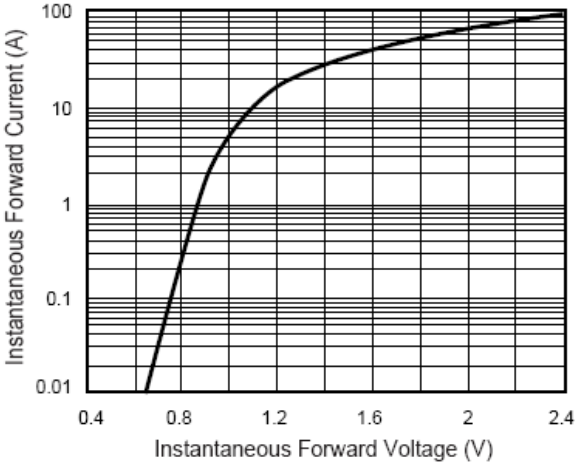


Fig. 4 - Typical Reverse Characteristics Per Leg

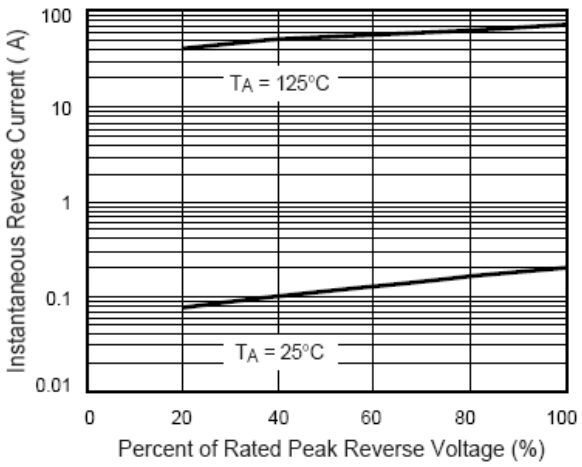


Fig. 5 - Typical Junction Capacitance Per Leg

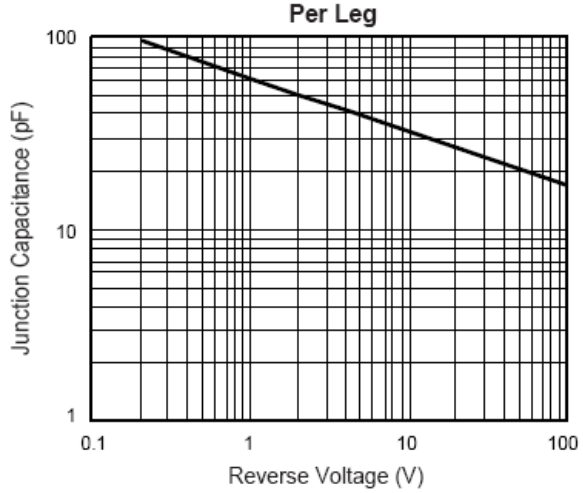


Fig. 6 - Typical Transient Thermal Impedance