G5SB60-E

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 600V Current: 8.0A

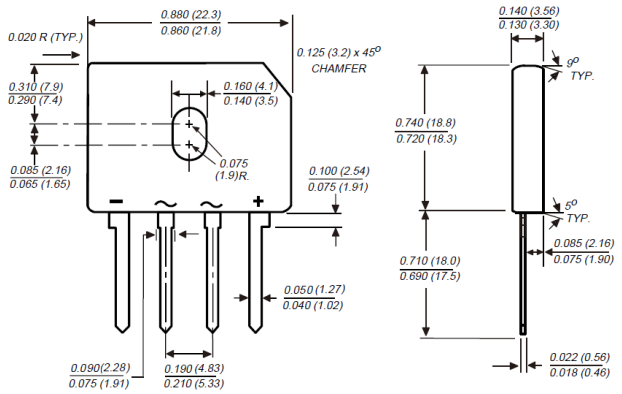
Features

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

Mechanical Data

Terminal: Plated leads solderable per J-STD-002
Case: UL-94 Class V-0 recognized Halogen Free Epoxy
Polarity: Polarity symbol marked on body
Mounting position: any

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	G5SB60-E	units
Maximum repetitive peak reverse voltage	Vrrm	600	V
Maximum RMS voltage	Vrms	420	V
Maximum DC blocking voltage	Vdc	600	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 4.0A	Vf	1.0	V
Rating for fusing (t < 8.3ms)	I^2t	166	A^2Sec
Maximum DC reverse current at Ta = 25°C rated DC blocking voltage per leg Ta = 125°C	Ir	5.0 500	μA
Typical junction capacitance per leg at 4V,1MHz	Cj	120	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 G5SB60-E

Fig. 1 – Derating Curve Output Rectified Current

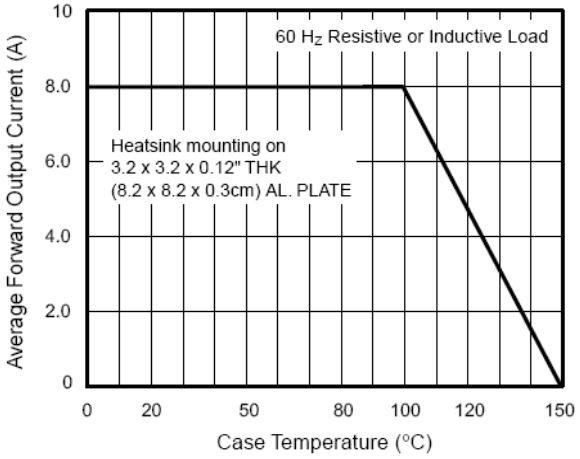


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

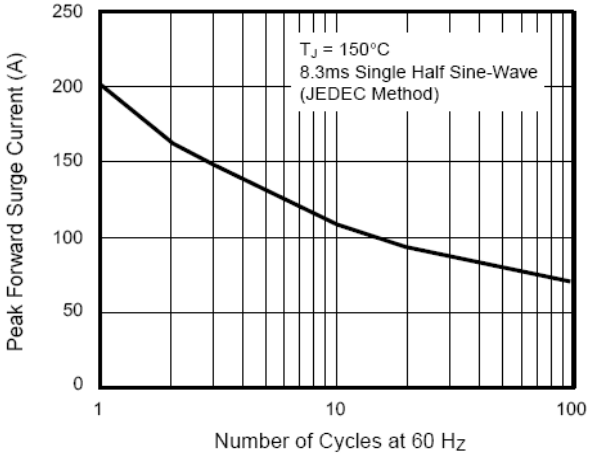


Fig. 3 – Typical Forward Characteristics Per Leg

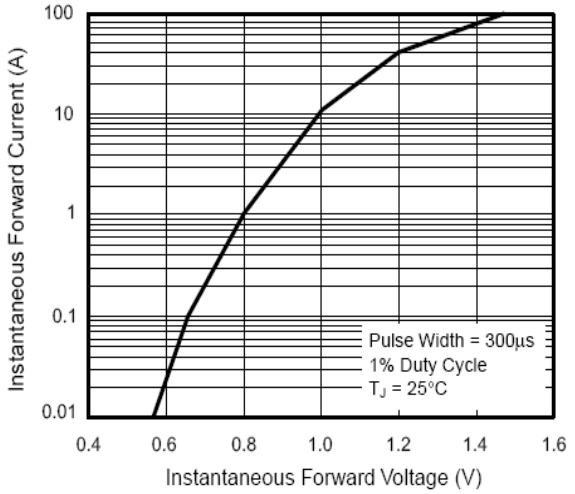


Fig. 4 – Typical Reverse Characteristics Per Leg

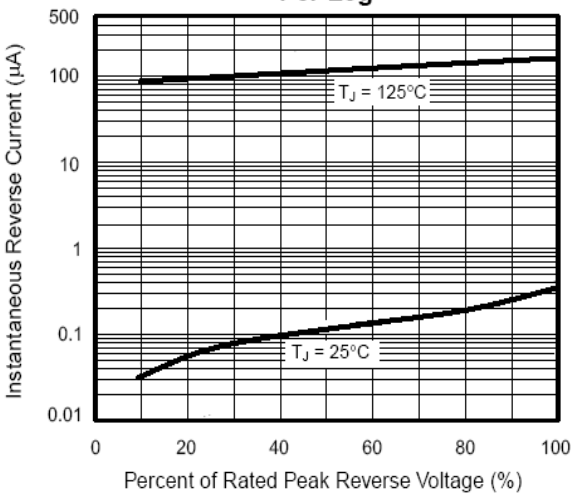


Fig. 5 – Typical Junction Capacitance Per Leg

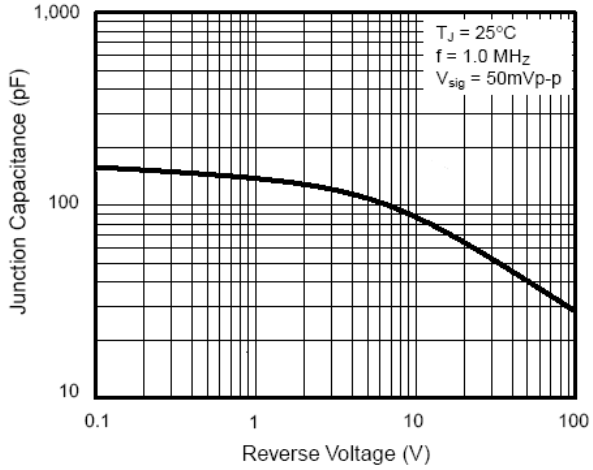


Fig. 6 – Typical Transient Thermal Impedance Per Leg