GSIB605 THRU GSIB6100

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 6.0A

GULF SEMI

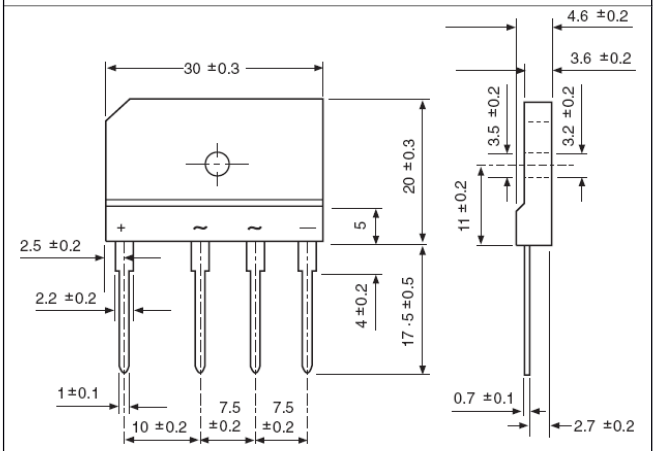
Features

Glass passivated chip junction
Ideal for printed circuit board
High surge current capability
High case dielectric strength
This series is UL listed under Recognized Component Index, file number E185029

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

GSIB-5S



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	GSIB605	GSIB610	GSIB620	GSIB640	GSIB660	GSIB680	GSIB6100	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 = 100℃(Note 1) Rectified output current at Ta = 25℃(Note 2)	If(av)	6.0 2.8							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	180							A
Maximum instantaneous forward voltage drop per leg at 3.0A	Vf	0.95							V
Rating for fusing (t < 8.3ms)	I^2t	120							A^2Sec
Maximum DC reverse current at Ta = 25℃ rated DC blocking voltage per leg Ta = 125℃	Ir	10.0 250							μA
Maximum thermal resistance per leg (Note2) (Note1)	Rth(ja) Rth(jc)	22.0 3.4							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit case mounted onAl plate heatsink
2. Unit case mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper peads and 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

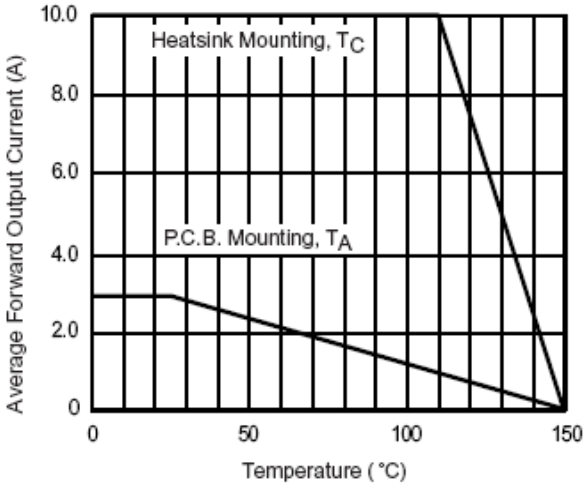


Figure 1. Derating Curve Output Rectified Current

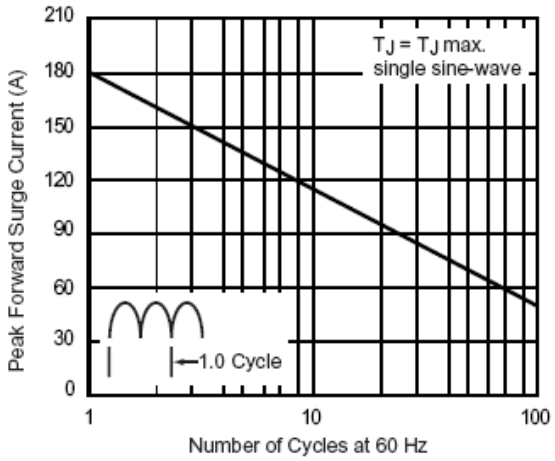


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

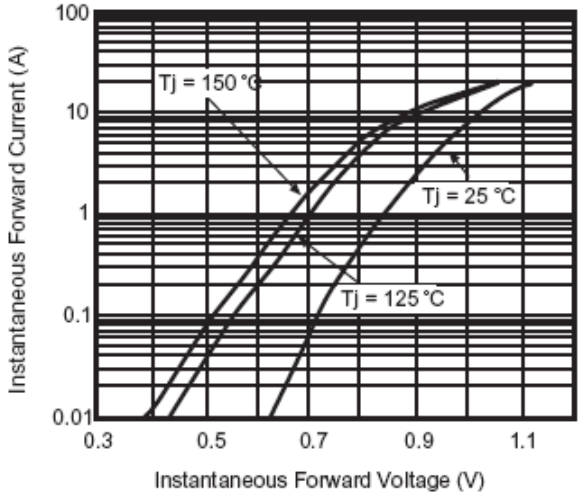


Figure 3. Typical Forward Characteristics Per Leg

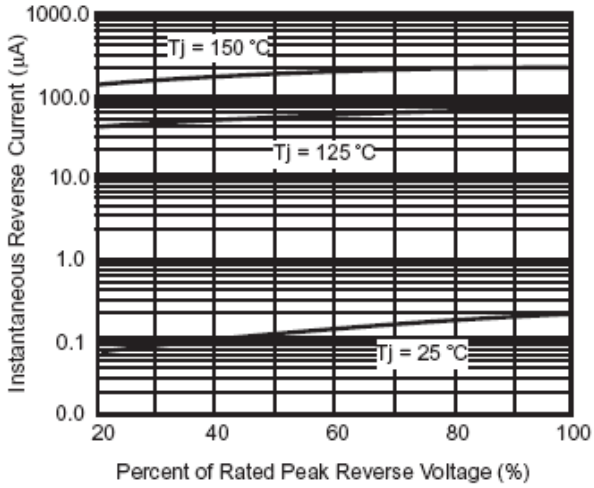


Figure 4. Typical Reverse Characteristics Per Leg

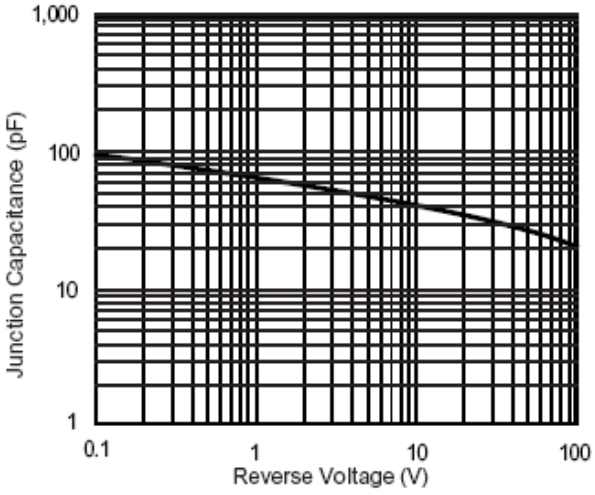


Figure 5. Typical Junction Capacitance Per Leg

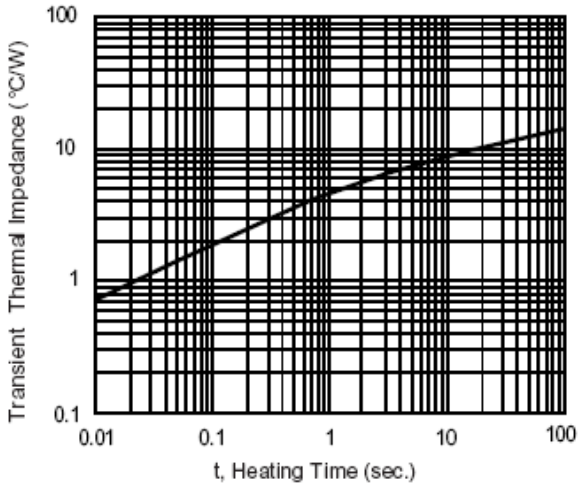


Figure 6. Typical Transient Thermal Impedance