GSIB2005-E THRU GSIB20100-E

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V Current: 20.0A

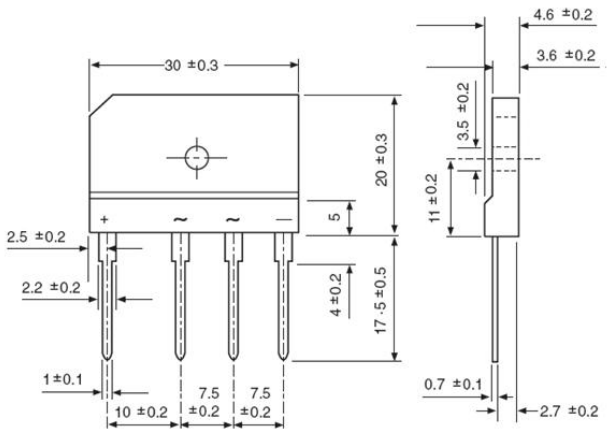
Features

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 E330278
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

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)

	Symbol	GSIB2005-E	GSIB2010-E	GSIB2020-E	GSIB2040-E	GSIB2060-E	GSIB2080-E	GSIB20100-E	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 = 87℃(Note 1) Rectified output current at Ta = 25℃(Note 2)	If(av)	20.0 3.5							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	Ifsm	240							A
Maximum instantaneous forward voltage drop per leg at 10A	Vf	1.0							V
Rating for fusing (t < 8.3ms)	I^2t	240							A^2Sec
Maximum DC reverse current at Ta = 25°C rated DC blocking voltage per leg Ta = 125°C	Ir	10.0 250							μA
Maximum thermal resistance per leg (Note2) (Note1)	Rth(ja) Rth(jc)	22.0 1.5							℃/W
Operating junction and storage temperature range	Tj, Tstg	-55 to +150							℃

Note:
1. Unit case mounted on Al plate heatsink
2. Unit case mounted on P.C.B. with heatsink
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 GSIB2005-E THRU GSIB20100-E

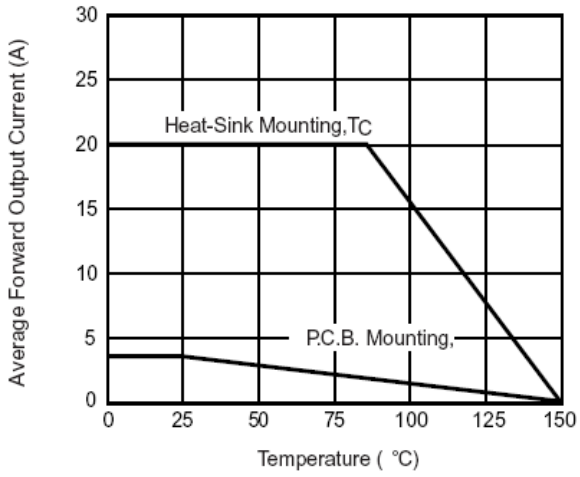


Figure 1. Derating Curve Output Rectified Current

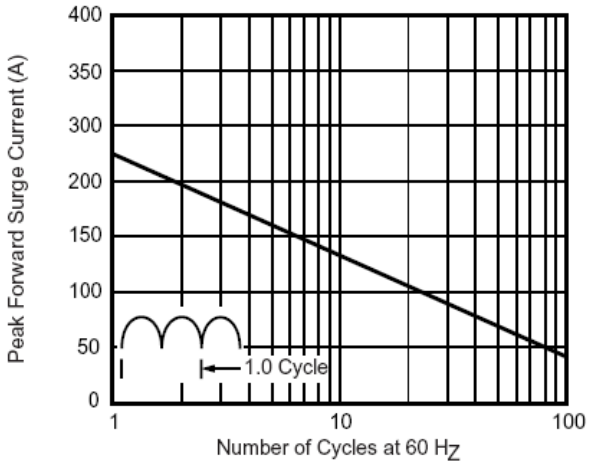


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

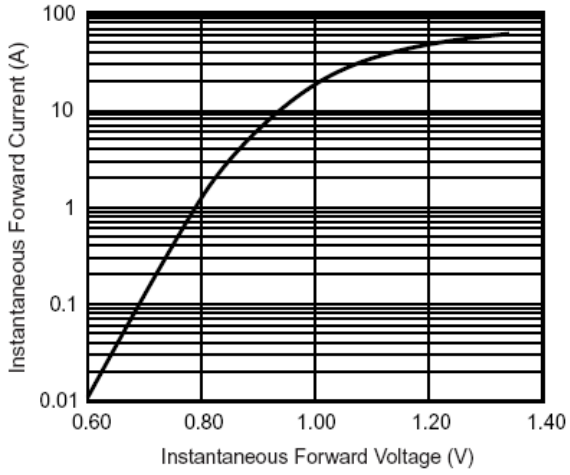


Figure 3. Typical Forward Characteristics Per Leg

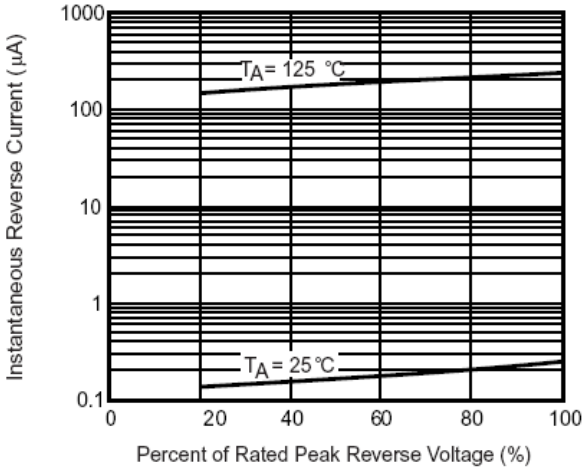


Figure 4. Typical Reverse Characteristics Per Leg

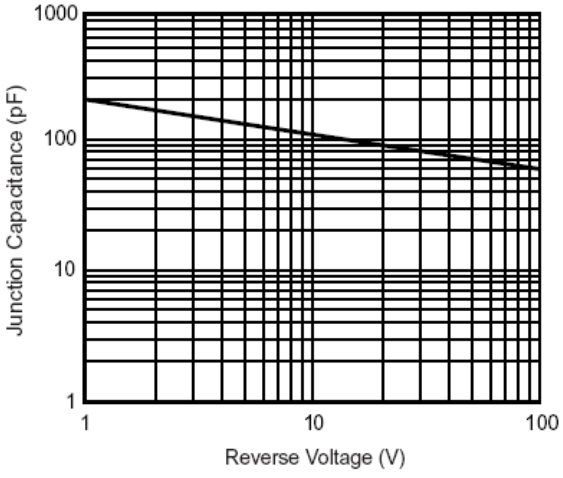


Figure 5. Typical Junction Capacitance Per Leg

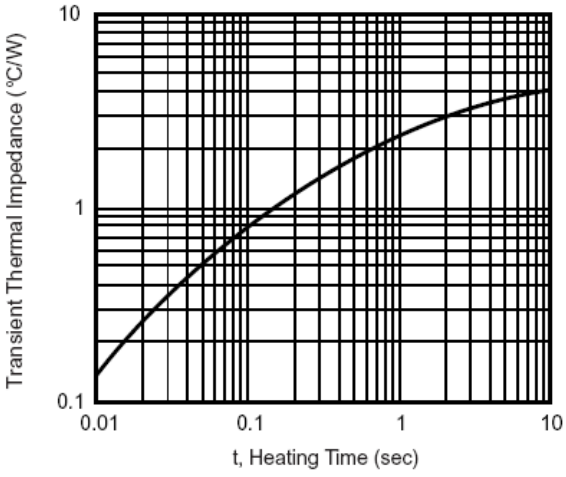


Figure 6. Typical Transient Thermal Impedance