

GSB30M-E-80C

**SINGLE PHASE GLASS PASSIVATED
SURFACE MOUNT BRIDGE RECTIFIER**
VOLTAGE: 1000V CURRENT: 3.0A

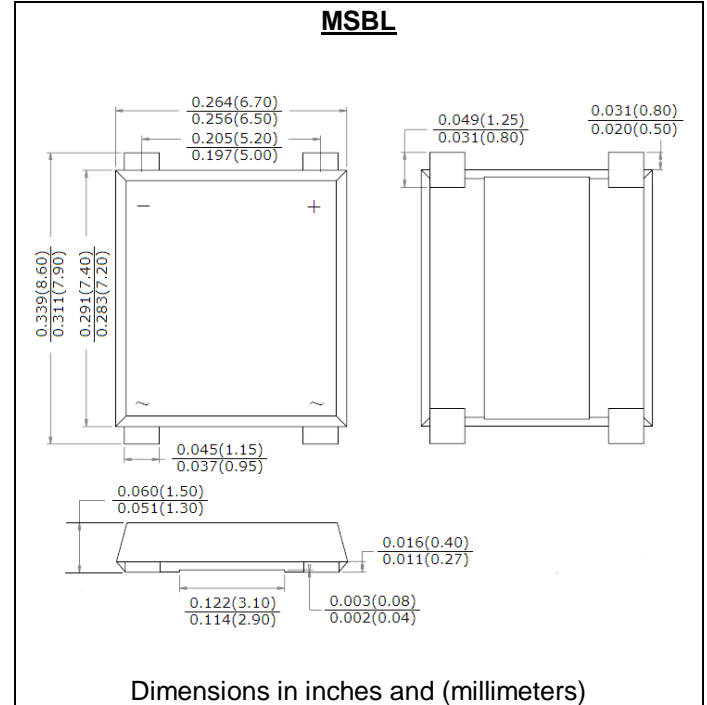


FEATURE

Ideal for SMT manufacturing
Glass passivated chip
Compact, thin profile package design
Reliable low cost construction utilizing molded plastic technique
High surge current capability
High temperature soldering guaranteed: 260°C/10 seconds
This series is UL listed under Recognized Component Index, file number E481337
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
Marking: GB30M



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	GSB30M-E-80C	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	1000	V
Maximum RMS Voltage	V _{rms}	700	V
Maximum DC blocking Voltage	V _{DC}	1000	V
Maximum average forward rectified output current	I _{f(av)}	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	110	A
Rating for fusing(t<8.3ms)	I ² t	50.21	A ² sec
Maximum Instantaneous Forward Voltage at 1.5A	V _f	1.02	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	5.0 500.0	μA
Typical Thermal resistance Junction to case (Note 1) (Note 2)	R _{th(jc)}	9.0 5.0	°C/W
Typical Junction Capacitance per element (Note 3)	C _j	45	pF
Storage and Operating Junction Temperature Range	T _{stg} , T _j	-55 to +150	°C

Note:

- Unit mounted on 15×15×1.6mm AL pad
- Unit mounted on 15×15×1.6mm AL pad attach 50×50×1mm copper plate heatsink
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

Fig. 1 - Derating Curve Output Rectified Current

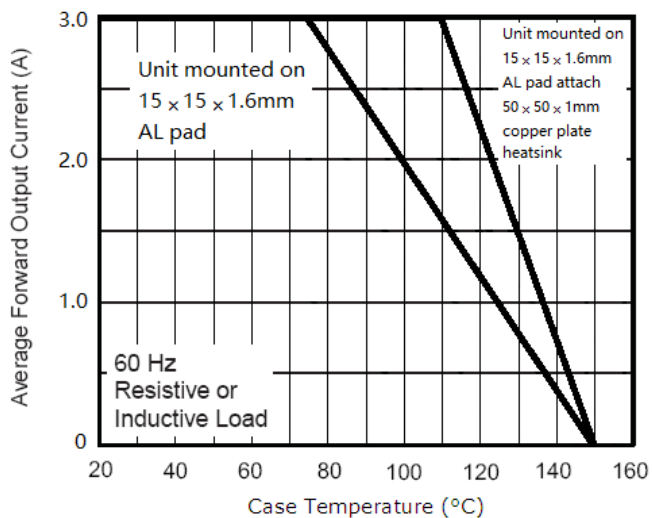


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

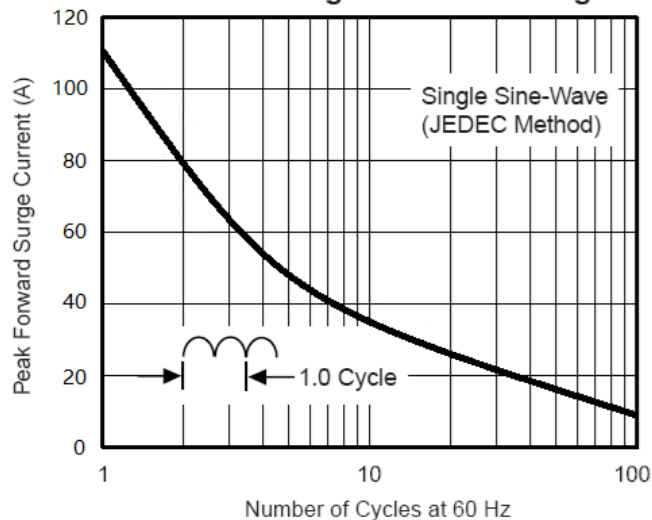


Fig. 3 - Typical Forward Characteristics Per Leg

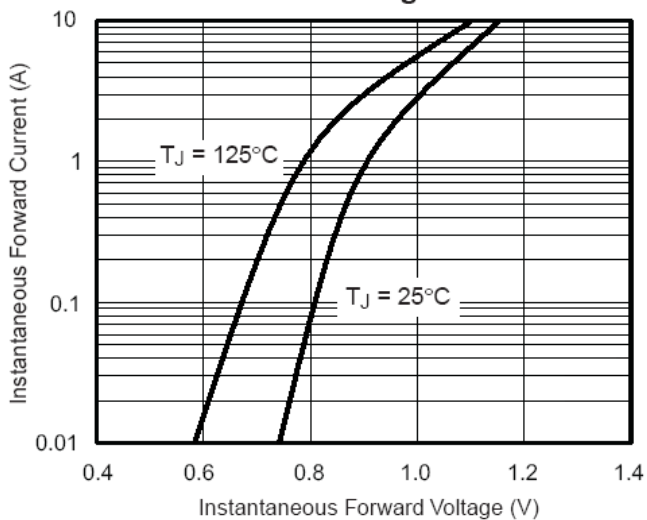


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

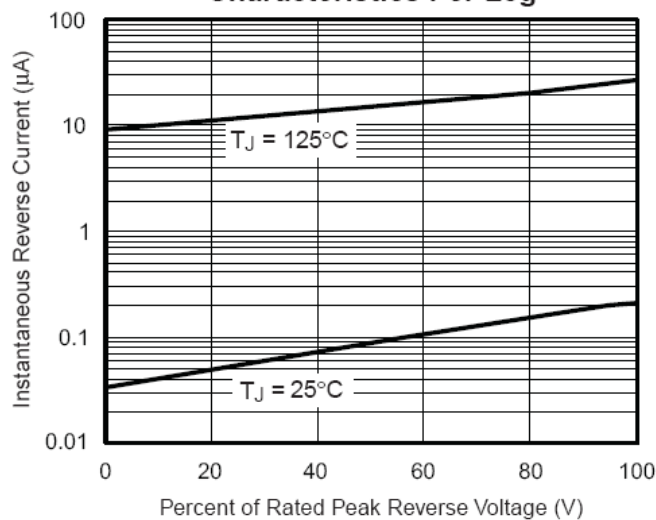


Fig. 5 - Typical Junction Capacitance

