

G10XB05 THRU G10XB100

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 50 to 1000V

Current: 10.0A



Features

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

Mechanical Data

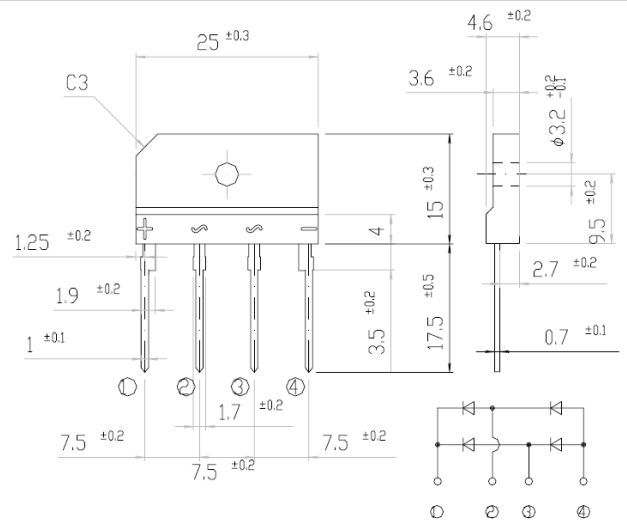
Terminal: Plated leads solderable per MIL-STD 202E,
Method 208C

Case: UL-94 Class V-0 recognized Flame Retardant Epoxy

Polarity: Polarity symbol marked on body

Mounting position: any

GSIB-3S



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	G10X B05	G10X B10	G10X B20	G10X B40	G10X B60	G10X B80	G10X B100	units
Maximum repetitive peak reverse voltage	V _{rrm}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{rms}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{dc}	50	100	200	400	600	800	1000	V
Maximum average forward Rectified output current at T _c = 100°C (Note 1) Ta = 25°C (Note 2)	I _{f(av)}	10.0 2.7							A
Peak forward surge current 10ms single sine-wave superimposed on rated load	I _{fsm}	120							A
Maximum instantaneous forward voltage drop per leg at 5.0A	V _f	1.1							V
Rating for fusing (t < 10.0ms)	I ² t	60							A ² Sec
Maximum DC reverse current at Ta = 25°C rated DC blocking voltage per leg Ta = 125°C	I _r	10.0 250							μA
Maximum thermal resistance per leg (Note2) (Note1)	R _{th(ja)} R _{th(jc)}	26.0 2.3							°C/W
Operating junction and storage temperature range	T _j , T _{stg}	-55 to +150							°C

Note:

1. junction to case, with heatsink
2. junction to ambient, without 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 G10XB05 THRU G10XB100

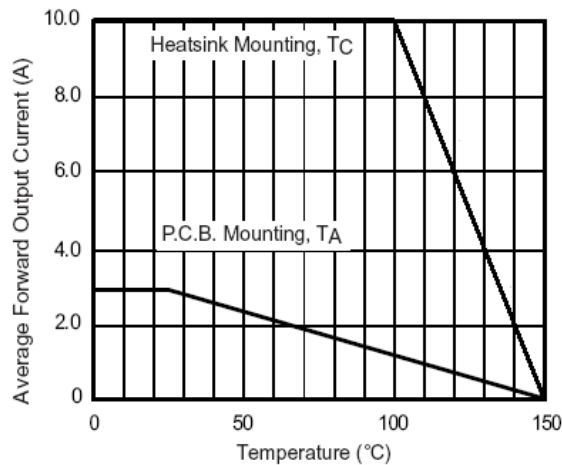


Figure 1. Derating Curve Output Rectified Current

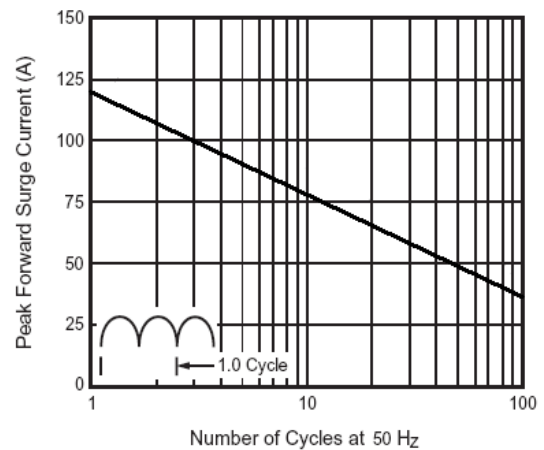


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

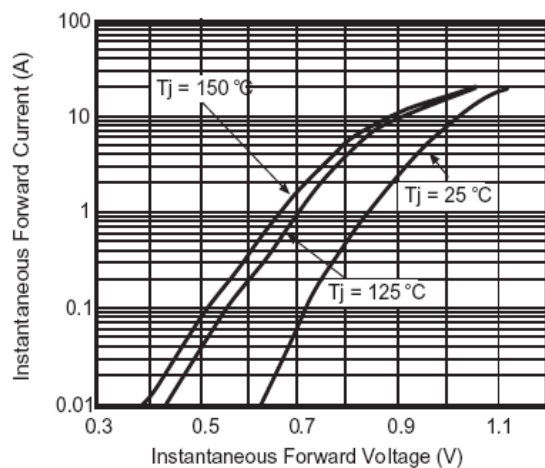


Figure 3. Typical Forward Characteristics Per Leg

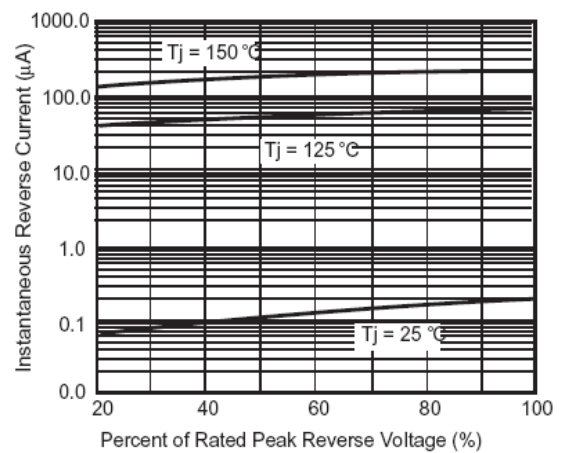


Figure 4. Typical Reverse Characteristics Per Leg

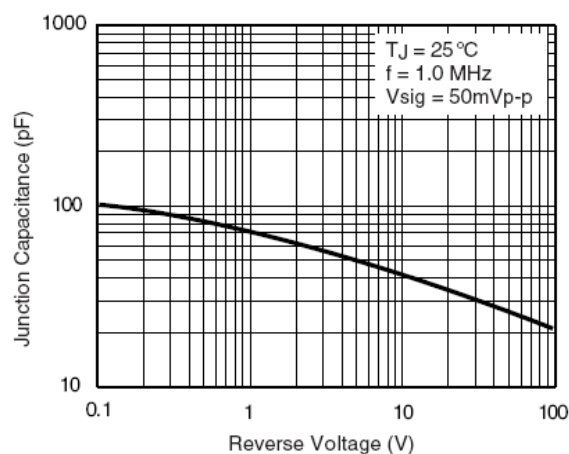


Figure 5. Typical Junction Capacitance Per Leg

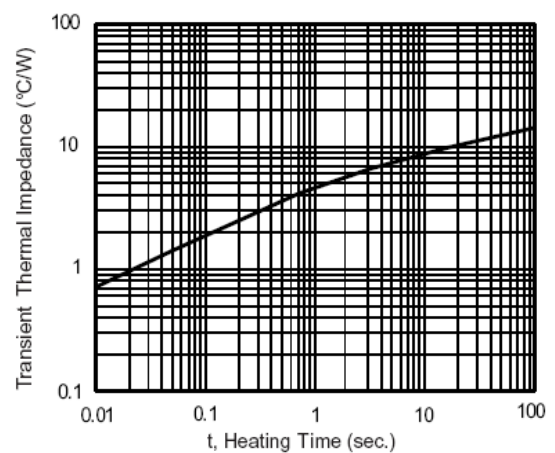


Figure 6. Typical Transient Thermal Impedance