Glass Passivated Single Phase Bridge Rectifiers

COMCHIP
SMD Diodes Specialist

GBJ2502-G Thru. GBJ2508-G

Reverse Voltage: 200 to 800V
RoHS Device

Features

-Plastic package has underwriters laboratory Flammability classification 94V-0.

-Glass passivated chip junction.

-High case dielectric with standing voltage of 2500 V_{RMS}.

-High surge current capability.

-Ideal for printed circuit boards.

-High temperautre soldering guaranteed: 260°C/10sec, 0.375"(9.5mm) lead length, 5lbs.(2.3kg) tension.

Mechanical Data

-Case: 5S Molded Plastic body

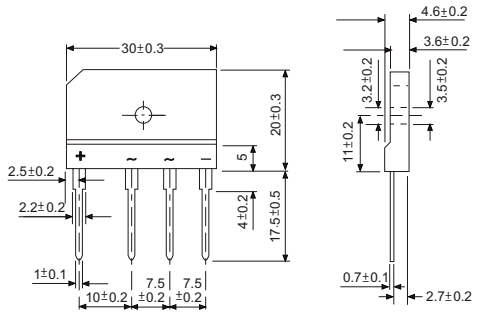
-Terminal: Plated leads solderable per MIL-STD-750, method 2026.

-Mounting position : Any (Note 3).

-Mounting torque: 8 in-lbs max.

-Weight: 0.26 ounce, 7.0 grams.

GBJ



Dimensions in millimeter

Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GBJ2502-G	GBJ2504-G	GBJ2506-G	GBJ2508-G	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	V
Maximum average forward output current @T_C=107°C @T_A=25°C	$I_{(AV)}$	25 3.5				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	350				A
Maximum instantaneous forward voltage drop per element at 12.5A DC	V_F	1.05				V
Maximum reverse current at rated DC blocking voltage T_A=25°C T_A=125°C	I_R	10 350				μA
Typical thermal resistance	$R_{\theta JA}$	22				°C/W
Operating and storage temperature range	T_J, T_{STG}	-55 ~ +150				°C

Note:
1. Unit case mounted on Al plate heatsink.
2. Unit mounted on P.C.B. with 0.5×0.5" (12×12mm) copper pads and 0.375"(9.5mm) lead length.
3. Recommended mounting position is to bolt down on heatsink with silicon thermal compound for maximum heat transfer with #6 screws.

Rating and Characteristics Curves (GBJ2502-G Thru. GBJ2508-G)

Fig. 1 Output Rectified Current Derating Curve

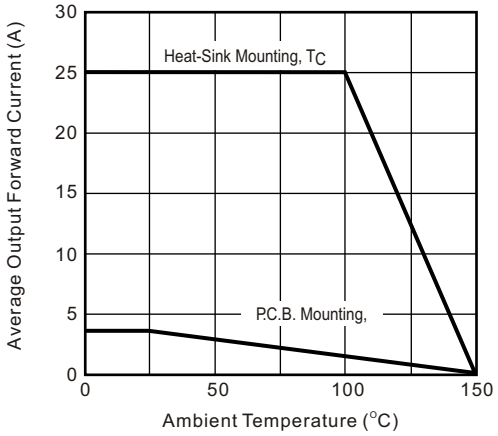


Fig. 2 Max. Non-repetitive Forward Surge Current Per Leg

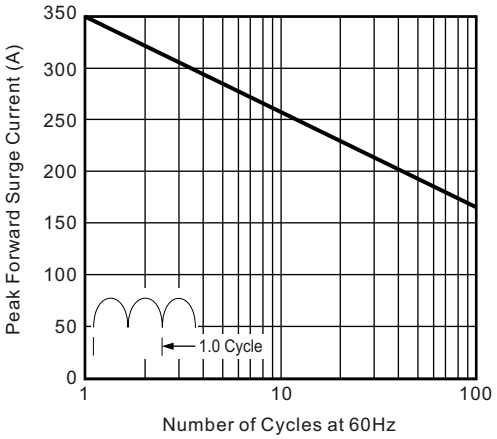


Fig. 3 Typical Forward Characteristics Per Leg

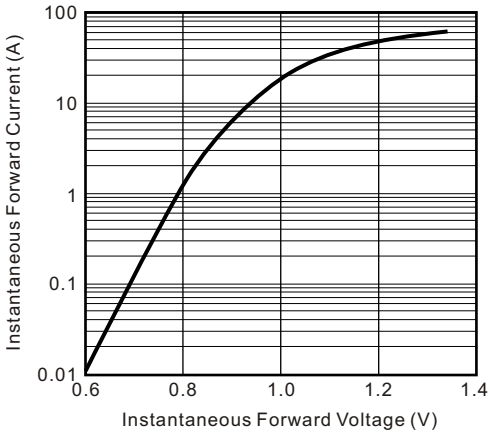


Fig. 4 Typical Reverse Characteristics Per Leg

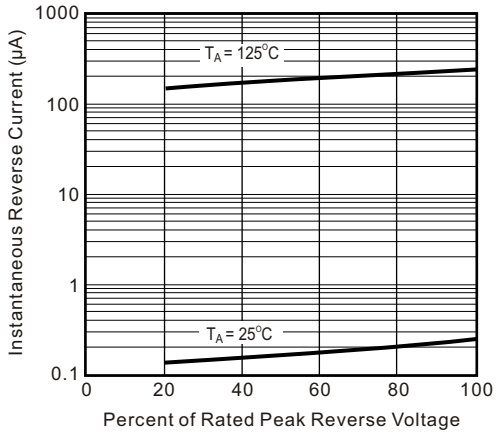


Fig. 5 Typical Junction Capacitance Per Leg

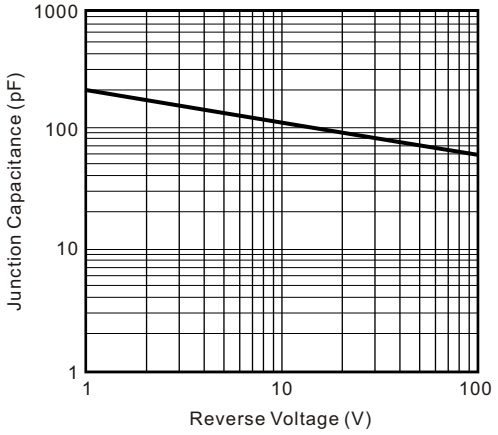


Fig. 6 Typical Transient Thermal Impedance