



Pb Free Plating Product

GBJ5006 thru GBJ5010

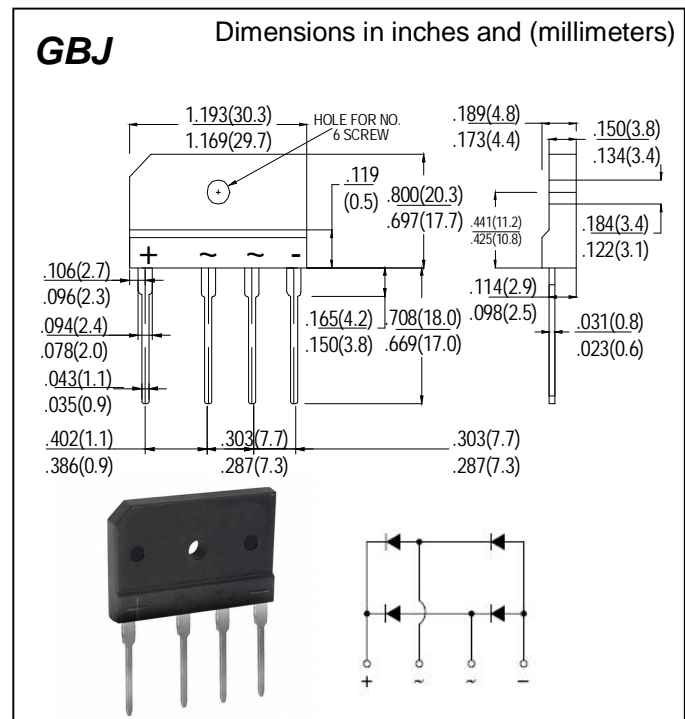
50.0 AMPERE GLASS PASSIVATED FLAT BRIDGE RECTIFIERS

Features

- Glass passivated chip junction
- Low forward voltage drop
- High surge overload rating of 400 A peak
- Ideal for printed circuit board

Mechanical Data

- Case: Molded plastic, GBJ(5S/6KBJ)
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per JESD22-B102, Meet JESD 201 class 2 whisker test
- Mounting position: Any



Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER	SYMBOL	GBJ5006	GBJ5008	GBJ5010	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	600	800	1000	V
Maximum RMS voltage	V _{RMS}	420	560	700	V
Maximum DC blocking voltage	V _{DC}	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	50			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	400			A
Rating for fusing (t<8.3ms)	I ² t	664			A ² s
Maximum instantaneous forward voltage (Note 1) @ 25 A	V _F	1.1			V
Maximum reverse current @ rated V _R	I _R	10 500			μA
		T _J =25°C T _J =125°C			
Typical thermal resistance	R _{θJC}	0.56			°C/W
Operating junction temperature range	T _J	- 55 to +150			°C
Storage temperature range	T _{STG}	- 55 to +150			°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

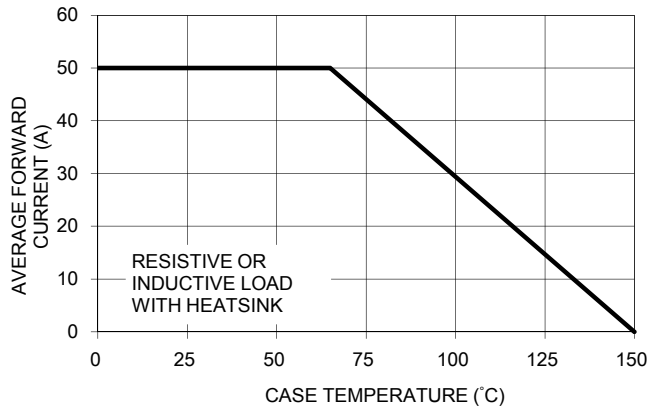


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

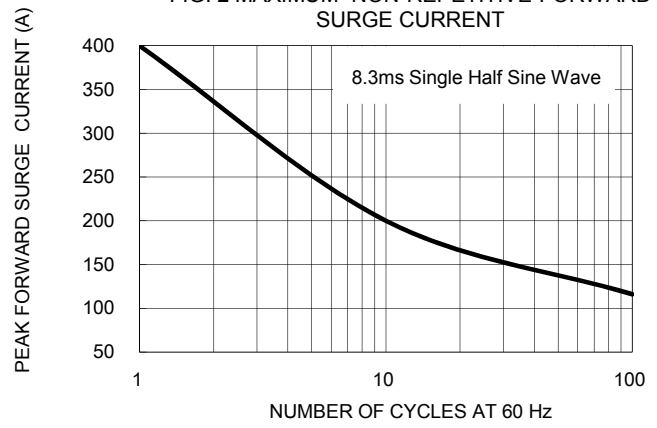


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

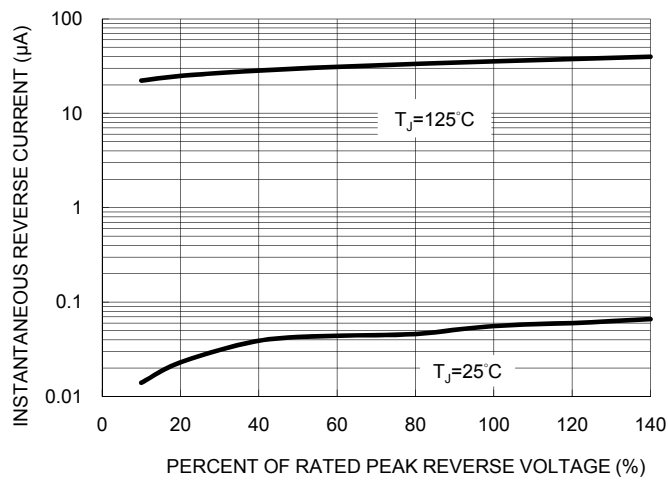


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

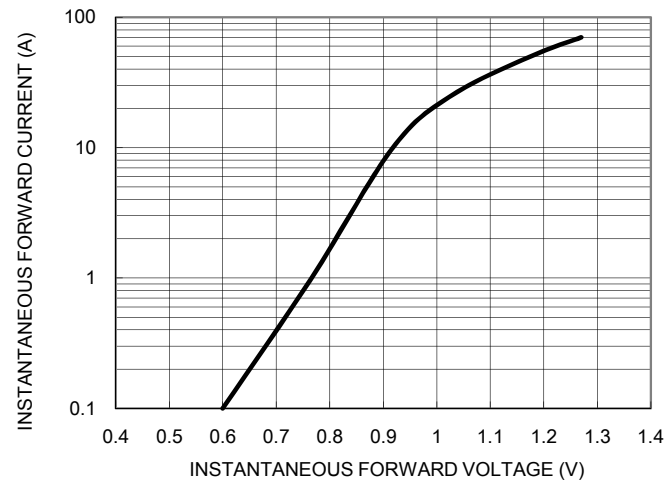


FIG. 5 TYPICAL JUNCTION CAPACITANCE

