GBJ10005 THRU GBJ1010

GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 10.0 Ampere

FEATURES

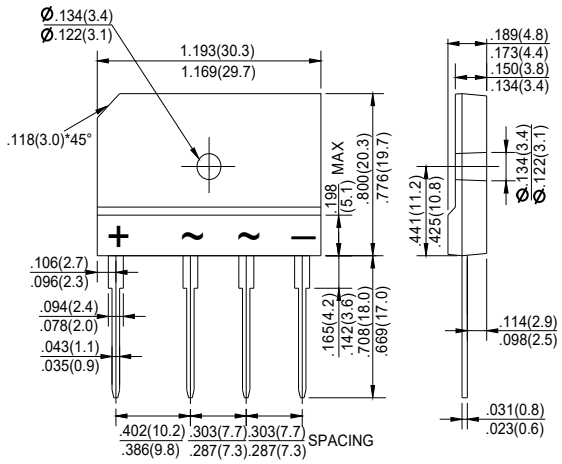
- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low reverse leakage current
- Low forward voltage drop
- High surge current capabiliy

MECHANICAL DATA

- Case:Molded plastic, GBJ
- Terminals: Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position: Any

RoHS Compliant

GBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbols	GBJ 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	Units
Maximum Recurrent 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 Current with Heatsink at T_C = 100 °C	$I_{(AV)}$	10							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	I_{FSM}	170							A
Maximum Forward Voltage at 5.0 A DC and 25 °C	V_F	1.1							V
Maximum Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage T_A = 125 °C	I_R	10 500							μA
Typical Junction Capacitance [1]	C_J	55							pF
Typical Thermal Resistance [2]	$R_{\theta JC}$	1.4							°C/W
Operating and Storage Temperature Range	T_J,T_S	-55 to +150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC.
[2] Thermal resistance from junction to case with device mounted on 300 mm X 300 mm X 1.6 mm Cu plate heatsink.

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RATINGS AND CHARACTERISTIC CURVES

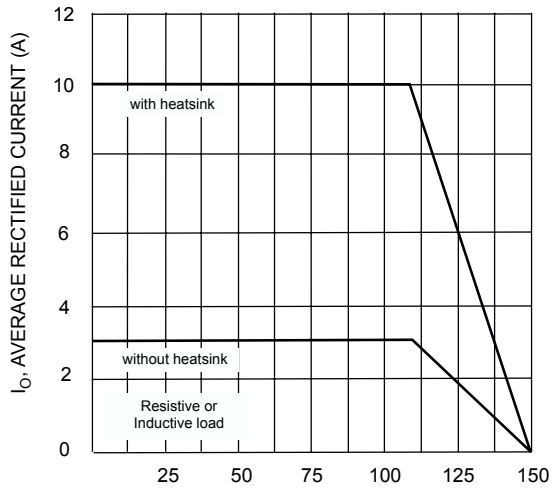

Fig. 1 Forward Current Derating Curve

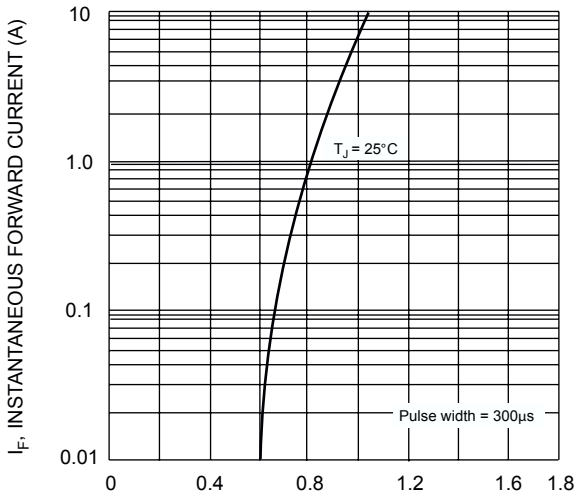

Fig. 2 Typical Forward Characteristics (per element)

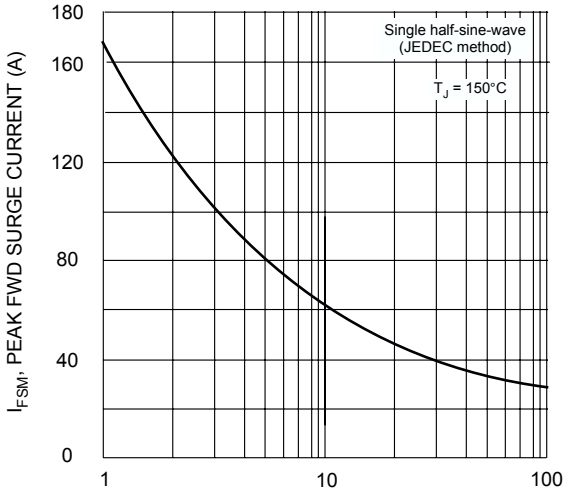

Fig. 3 Maximum Non-Repetitive Surge Current

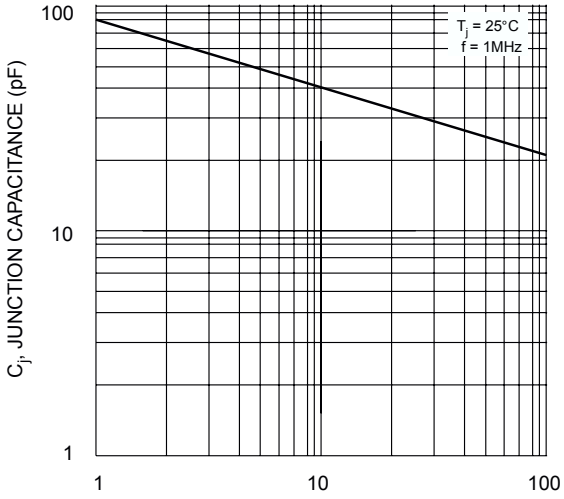

Fig. 4 Typical Junction Capacitance

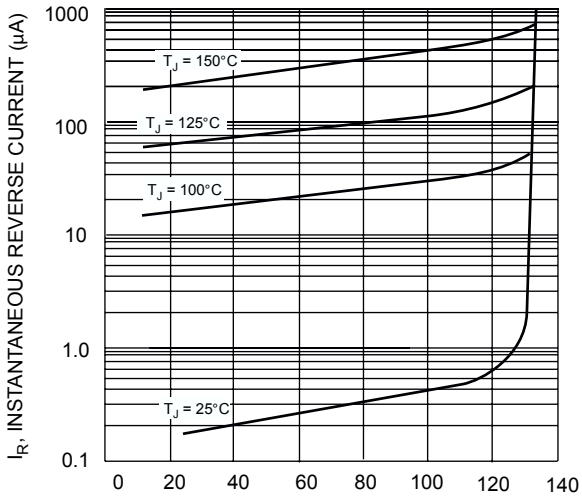

Fig. 5 Typical Reverse Characteristics