

GBJ4005 THRU GBJ410

GLASS PASSIVATED BRIDGE RECTIFIER

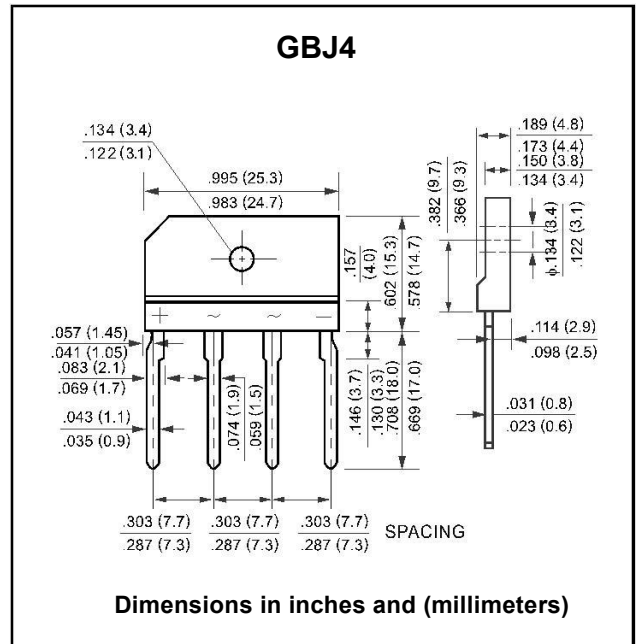
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Ampere

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 capability

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



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 4005	GBJ 401	GBJ 402	GBJ 404	GBJ 406	GBJ 408	GBJ 410	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 $T_C = 100^\circ\text{C}$	$I_{(AV)}$	4							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	I_{FSM}	125							A
Maximum Forward Voltage at 2.0 A DC and 25 °C	V_F	1.1							V
Maximum Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	I_R	5.0 500							μA
Typical Junction Capacitance ¹⁾	C_J	45							pF
Typical Thermal Resistance ²⁾	$R_{\theta JC}$	2.2							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_S	-55 to +150							$^\circ\text{C}$

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.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1.1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

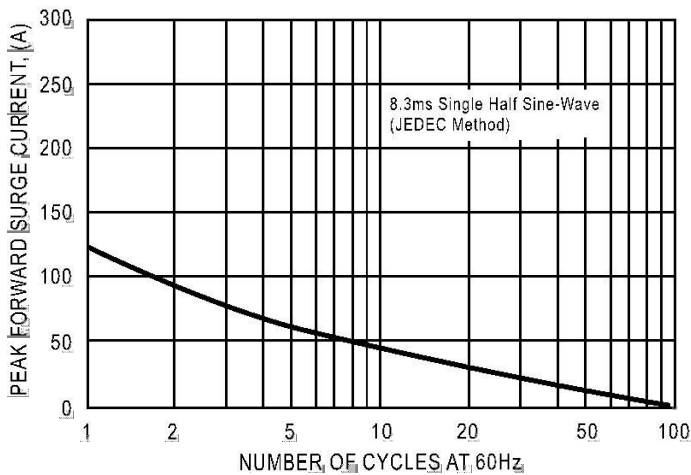


FIG. 1.2 - TYPICAL FORWARD CURRENT DERATING CURVE

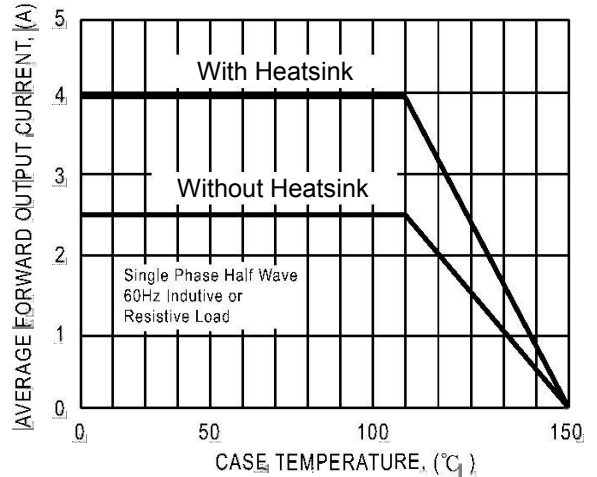


FIG. 1.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

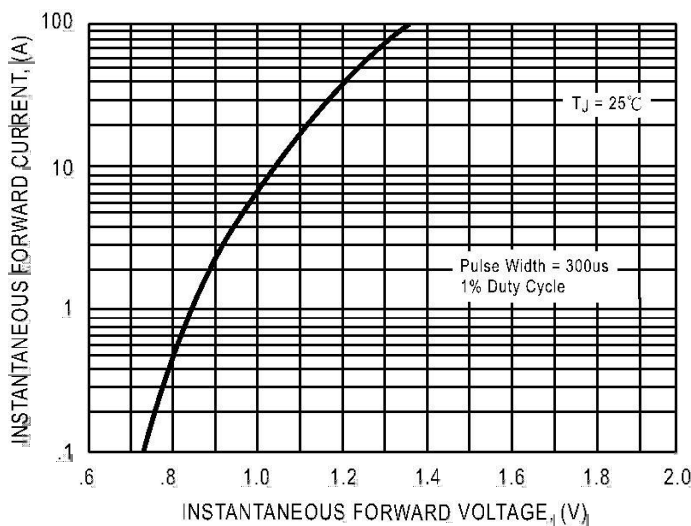


FIG. 1.4 - TYPICAL REVERSE CHARACTERISTICS

