



# GBU10005 THRU GBU1010

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

## GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- ◆ Surge overload rating - 220 amperes peak
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L flammability classification 94V-0

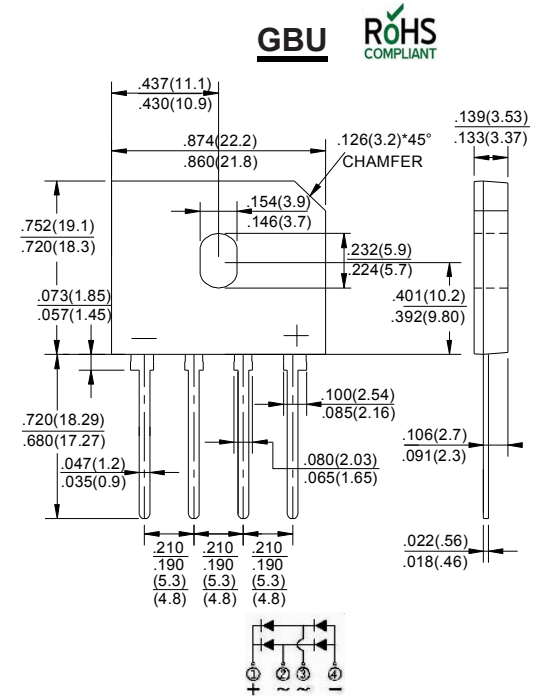
### Mechanical Data

**Case :** JEDEC GBU Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any



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%.

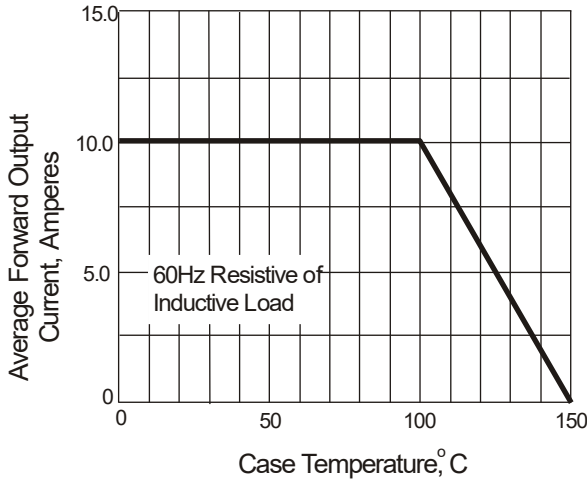
Parameter	SYMBOLS	MDD GBU10005	MDD GBU1001	MDD GBU1002	MDD GBU1004	MDD GBU1006	MDD GBU1008	MDD GBU1010	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward (with heatsink NOTE 2) Rectified current @ $T_c = 100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	10.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	166							$\text{A}^2\text{s}$
Maximum forward voltage at 5.0A DC	$V_F$	1.1							V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
		0.5							$\text{mA}$
Typical Junction Capacitance (Note 1)	$C_J$	70							$\text{pF}$
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.2							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

- NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Device mounted on 75mm\*75mm\*1.6mm cu plate heatsink.  
3. The typical data above is for reference only.

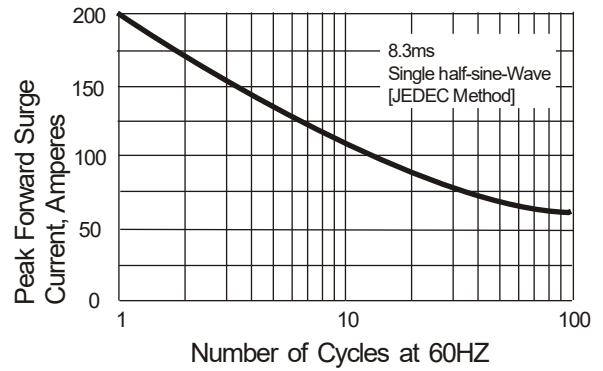


## Ratings And Characteristic Curves

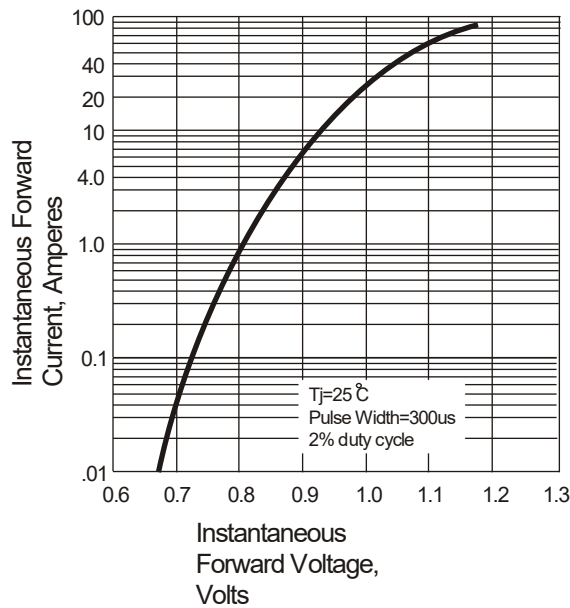
**Fig. 1 Derating Curve for Output Rectified Current**



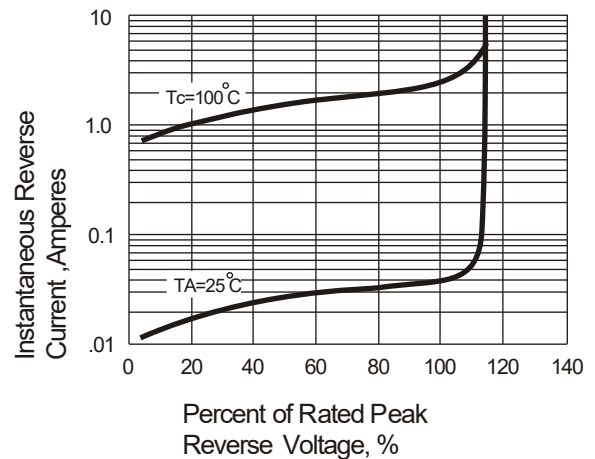
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



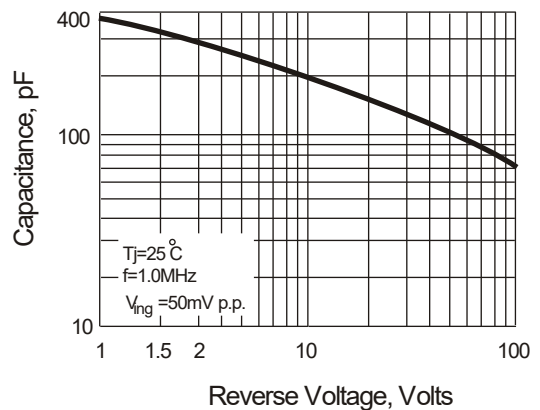
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**



The cruve graph is for reference only