

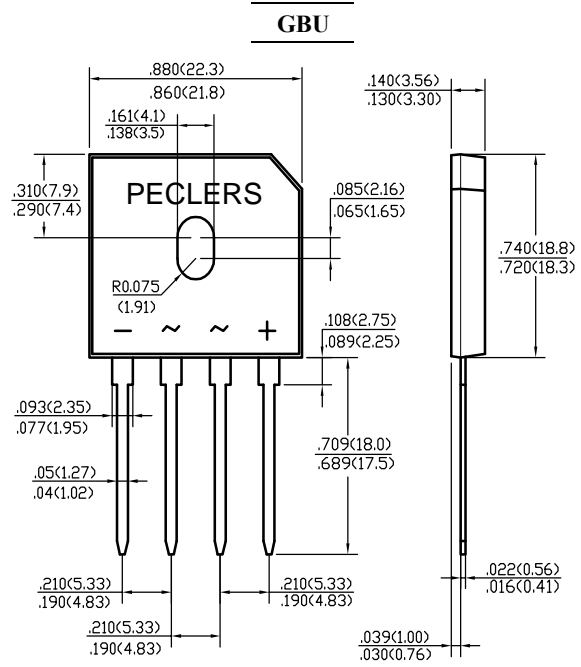
**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 8.0 AMPERE

#### FEATURES

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

#### MECHANICAL DATA

Case: Molded plastic, GBU  
 Epoxy: UL 94V-O rate flame retardant  
 Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed  
 Mounting position: Any  
 Weight: 0.15ounce, 4.0gram



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, derate current by 20%.

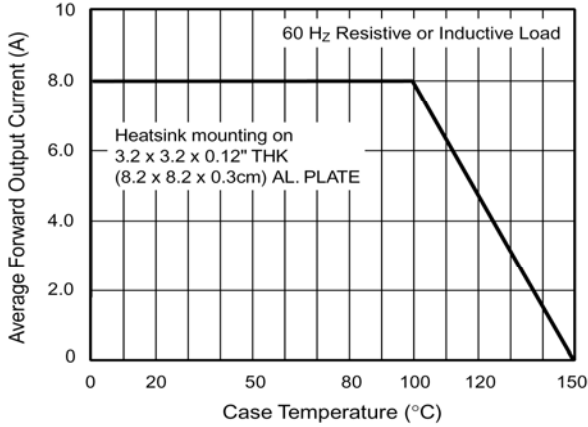
	Symbols	GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GBU810	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$	$I_{(AV)}$	8.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200							Amp
Maximum Forward Voltage at 4.0A DC and 25°C	$V_F$	1.0							Volts
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							uAmp
Typical Junction Capacitance (Note 3)	$C_J$	255				125			pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	8.6							°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	3.1							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150							°C

#### NOTES:

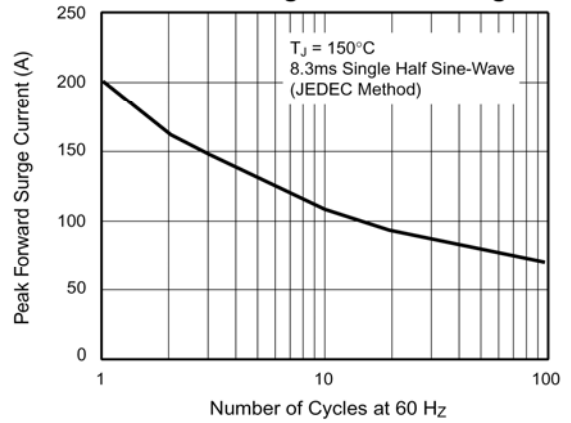
- 1- Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
- 2- Units Mounted on a 2.6 x 1.4" x 0.06" thick ( 6.5 x 3.5 x 0.15cm) AL plate.
- 3- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 4- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

#### RATINGS AND CHARACTERISTIC CURVES

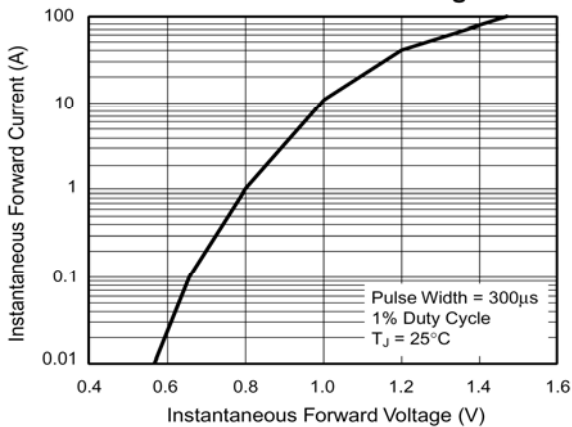
**Fig. 1 – Derating Curve Output Rectified Current**



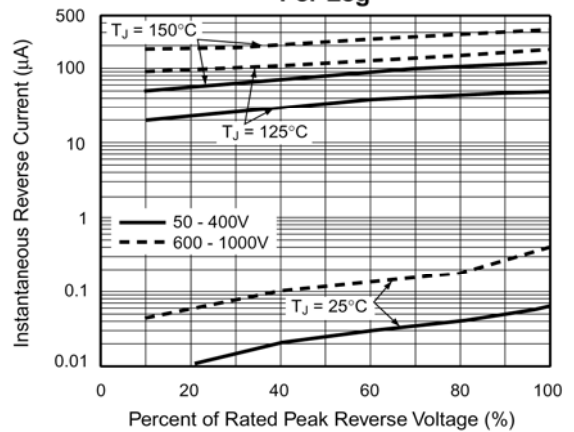
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



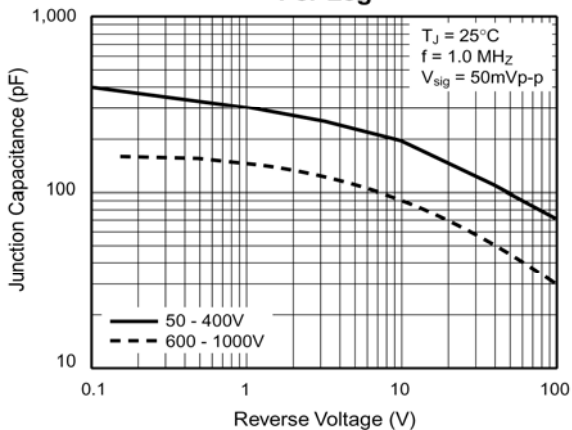
**Fig. 3 – Typical Forward Characteristics Per Leg**



**Fig. 4 – Typical Reverse Characteristics Per Leg**



**Fig. 5 – Typical Junction Capacitance Per Leg**



**Fig. 6 – Typical Transient Thermal Impedance Per Leg**

