

**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 forward voltage drop
- Low reverse leakage current
- High surge current capability

#### MECHANICAL DATA

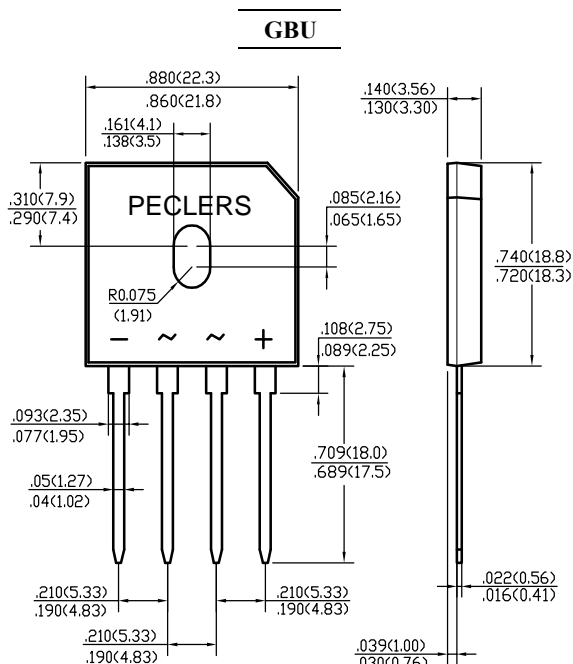
Case: Molded plastic, GBU

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	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	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 $T_C=100^\circ\text{C}$ (Note 1) $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	4.0						3.0		Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150								Amp
Maximum Forward Voltage at 2.0A DC and 25°C	$V_F$	1.0								Volts
Maximum Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0						500		uAmp
Typical Junction Capacitance (Note 3)	$C_J$	100				45			pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	22								°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	4.2								°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150								°C

#### NOTES:

1- Unit case mounted on 1.6 x 1.6 x 0.06" thick (4.0 x 4.0 x 0.15cm) Al. Plate

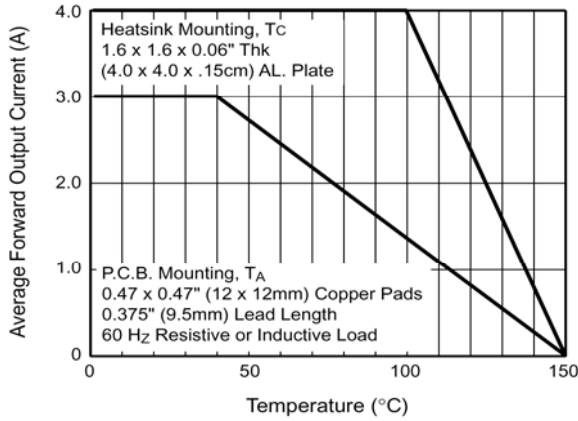
2- Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length

3- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

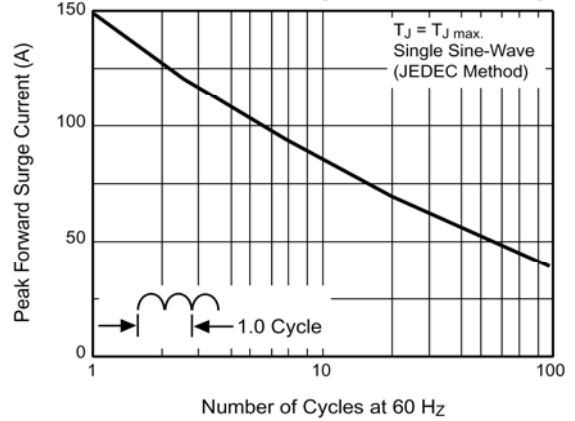
4- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

#### RATINGS AND CHARACTERISTIC CURVES

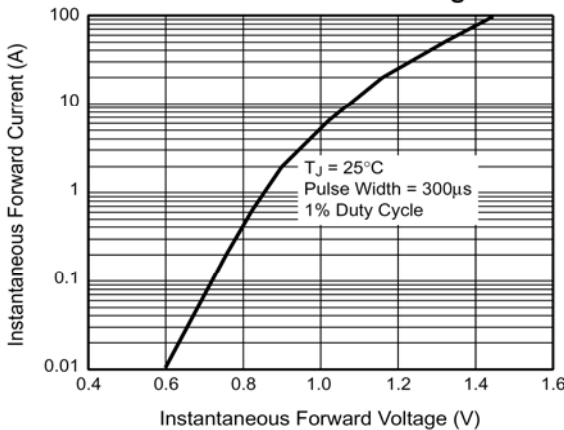
**Fig. 1 — Derating Curve  
Output Rectified Current**



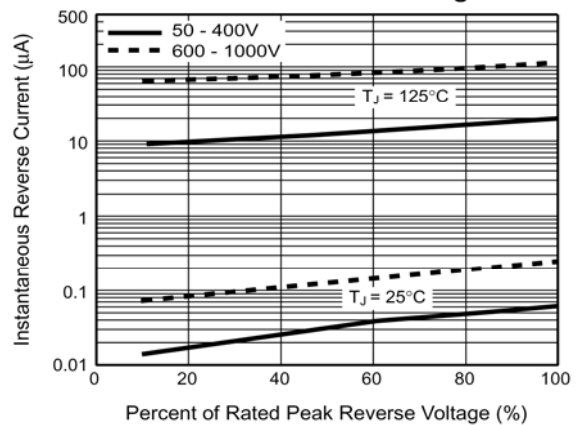
**Fig. 2 — Maximum Non-Repetitive  
Peak Forward Surge Current Per Leg**



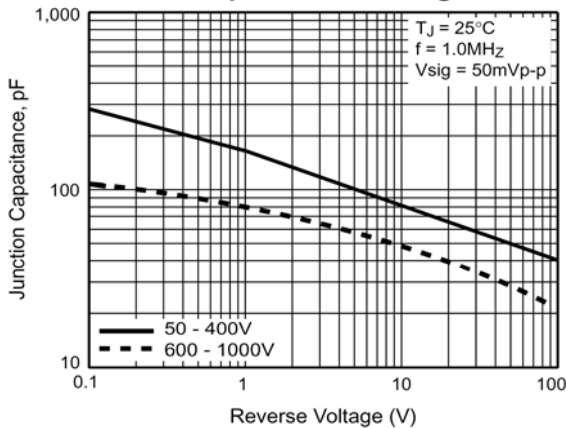
**Fig. 3 — Typical Forward  
Characteristics Per Leg**



**Fig. 4 — Typical Reverse Leakage  
Characteristics Per Leg**



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



**Fig. 6 — Typical Transient  
Thermal Impedance**

