

## GBU4AL ~ GBU4ML

**PRV : 50 - 1000 Volts**

**Io : 4.0 Amperes**

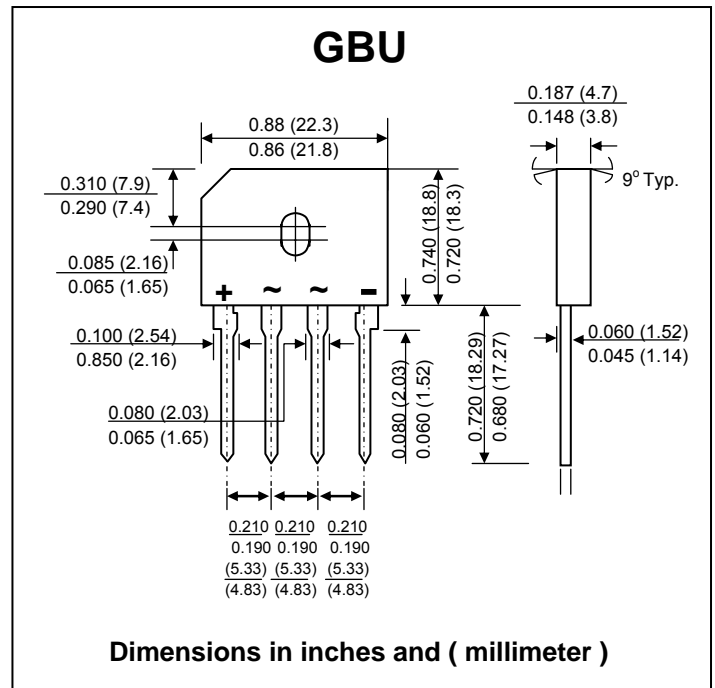
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Ideal for printed circuit board
- \* Very good heat dissipation
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 4.0 grams

## SILICON BRIDGE RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

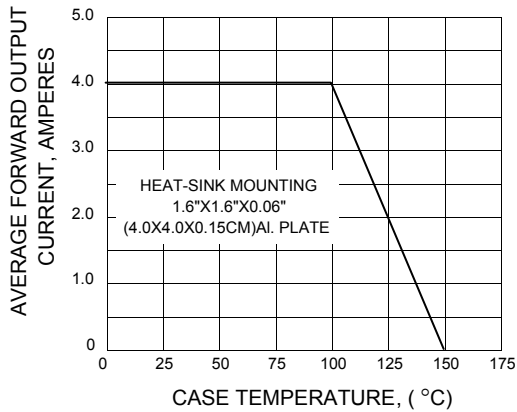
RATING	SYMBOL	GBU	GBU	GBU	GBU	GBU	GBU	GBU	UNIT
		4AL	4BL	4DL	4GL	4JL	4KL	4ML	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_R$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	4.0							A
Maximum Peak Forward Surge Current (Single sine-wave Superimposed on rated load )	$I_{FSM}$	150							A
Maximum Instantaneous Forward Voltage drop per leg at $I_F = 2.0\text{ A}$	$V_F$	0.9							V
Maximum DC Reverse Current $T_j = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage per leg $T_j = 125\text{ }^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
	$I_{R(H)}$	500							$\mu\text{A}$
Typical junction Capacitance per leg (Note 3)	$C_j$	100				45			pF
Typical Thermal Resistance, Junction to Case (Note 1)	$R_{\theta JC}$	4.2							$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_j, T_{STG}$	- 55 to + 150							$^\circ\text{C}$

### Notes :

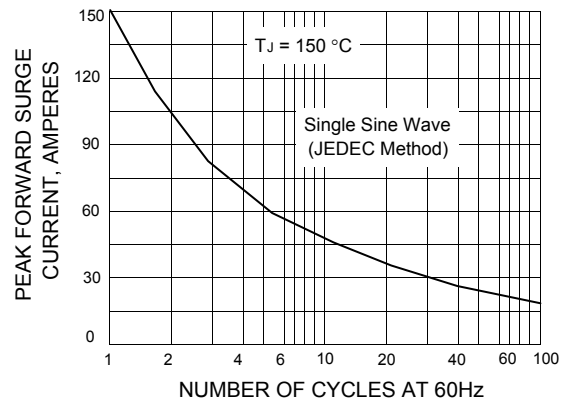
- (1) Unit case mounted on 1.6"x1.6"x0.06" THK (4.0x4.0x0.15cm) Al. Plate
- (2) Units mounted on P.C. Board with 0.5"x0.5" (12mmx15mm) copper pads and 0.375"(9.5mm) lead length
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 volt

## RATING AND CHARACTERISTIC CURVES ( GBU4AL THRU GBU4ML )

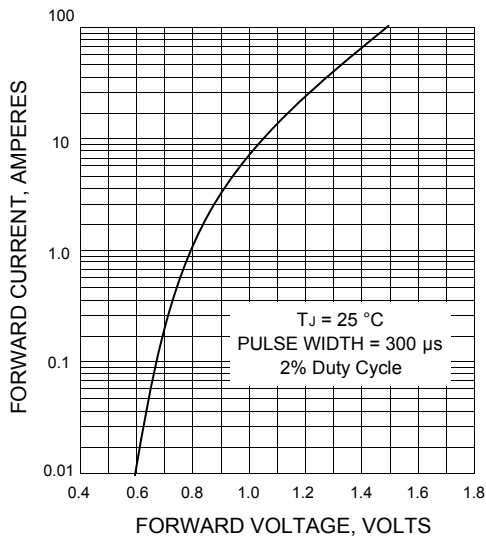
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**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**

