

## GBU SILICON BRIDGE RECTIFIERV

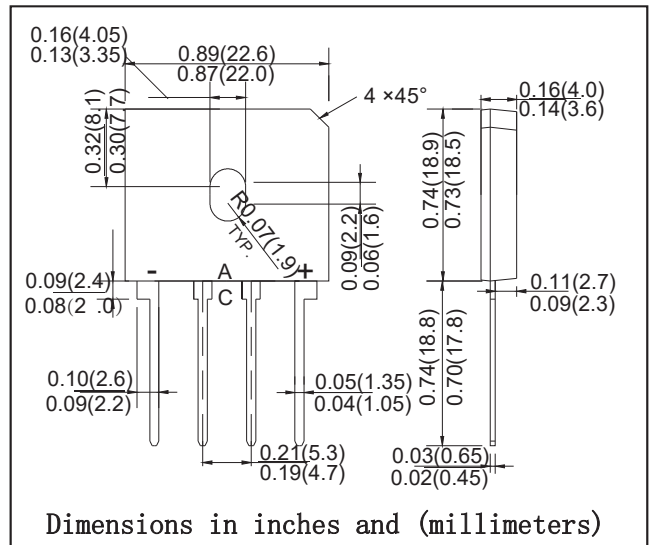
REVERSE VOLTAGE: 50 --- 1000V CURRENT: 4.0A

### FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing m olded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Glass passivated chip junctions

### MECHANICAL DATA

- Case style: GBU plastic molded
- Mounting position: Any



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter		GBU 4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	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 output current @ $T_A=40^\circ\text{C}$ (note 2)	$I_{F(AV)}$	4.0 3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	150.0							A
Maximum instantaneous forward voltage at 2.0 A	$V_F$	1.0							V
Maximum reverse current at rated DC blocking voltage	$I_R$	5.0 500.0							$\mu\text{A}$
Typical junction capacitance per leg (note 3)	$C_J$	100				45			pF
Typical thermal resistance per leg (note 2) (note 1)	$R_{\theta JA}$ $R_{\theta JC}$	22.0 4.2							$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150							$^\circ\text{C}$

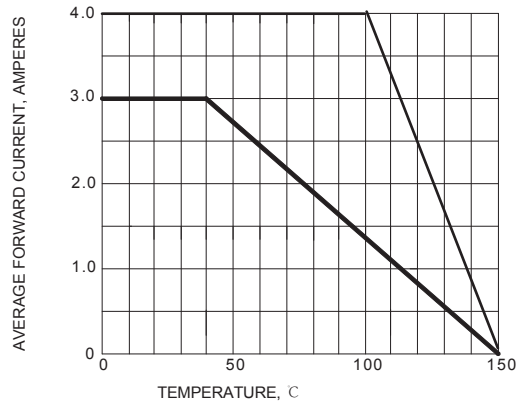
NOTE: 1. Unit case mounted on 1.6x1.6x0.06" thick (4.0x4.0x0.15cm) Al. Plate.

2. Units mounted on P.C.B. with 0.5x0.5" (12x12mm) copper pads and 0.375" (9.5mm) lead length.

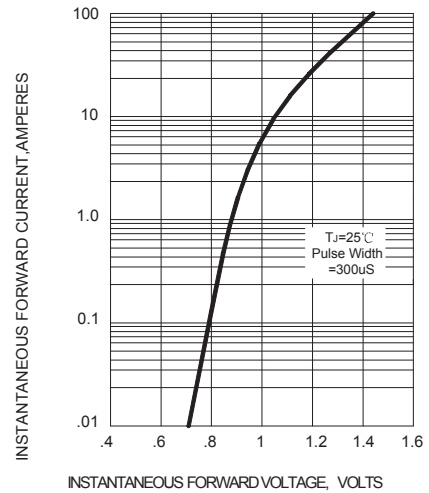
3. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.

## RATINGS AND CHARACTERISTIC CURVES

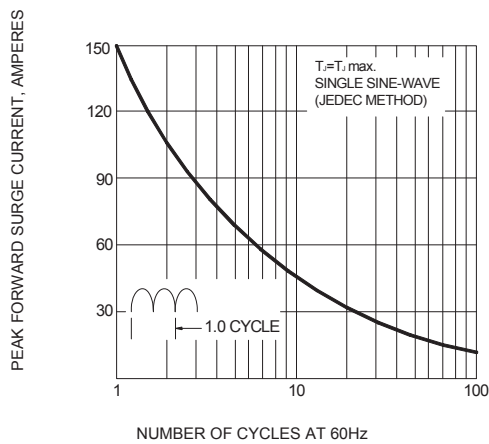
**FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



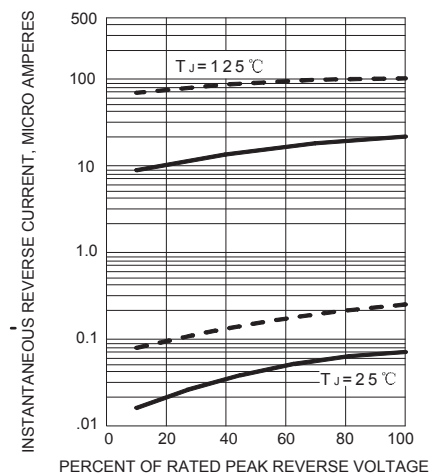
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



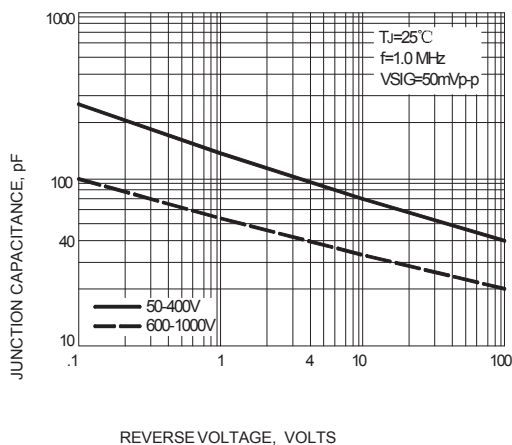
**FIG.3 – MAXIMUM NON-REPETTIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE**

