

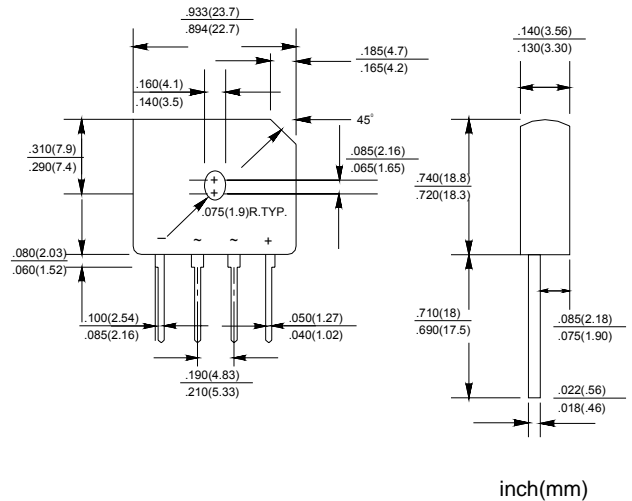
## SILICON BRIDGE RECTIFIERS

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

### FEATURES

- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded plastic technique
- ◇ Plastic material has U/L flammability classification 94V-0
- ◇ Mounting position: Any
- ◇ Glass passivated chip junctions

### GBU



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		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 @ $T_A=100^\circ\text{C}$ (note 1) @ $T_A=40^\circ\text{C}$ (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 @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	5.0 500.0							$\mu\text{A}$ mA
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							$^\circ\text{C}$

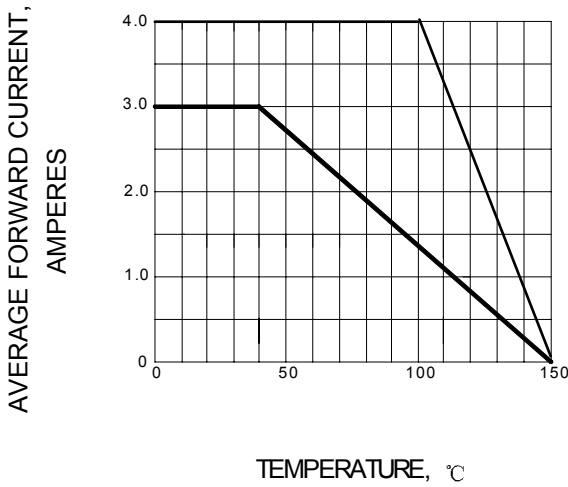
NOTE: 1. Unit case mounted on 1.6x1.6x0.06" thick (4.0x4.0x0.15cm) Al. Plate.

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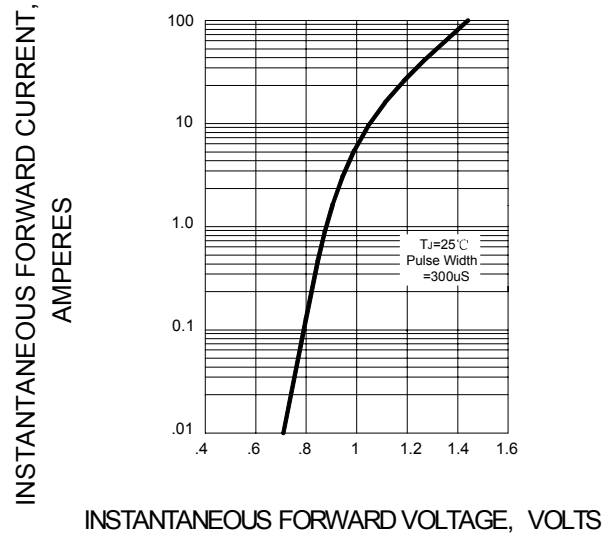
2. Units mounted on P.C.B. with 0.5x0.5" (12x12mm) copper pads and 0.375" (9.5mm) lead length.

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

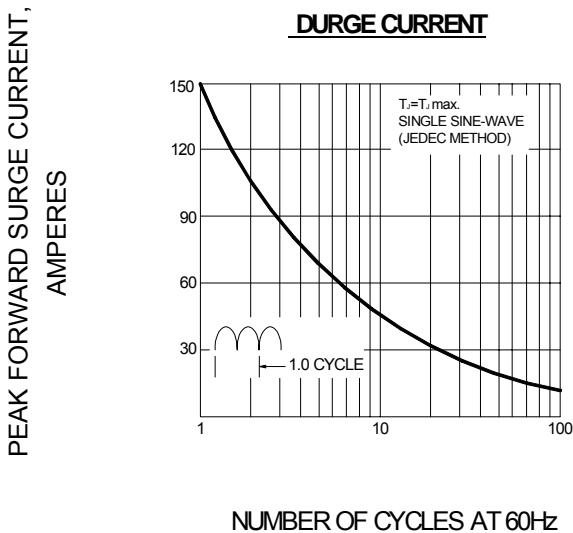
**FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



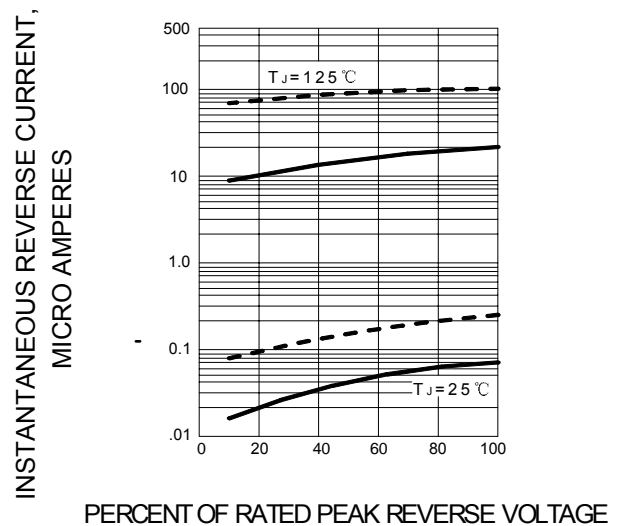
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



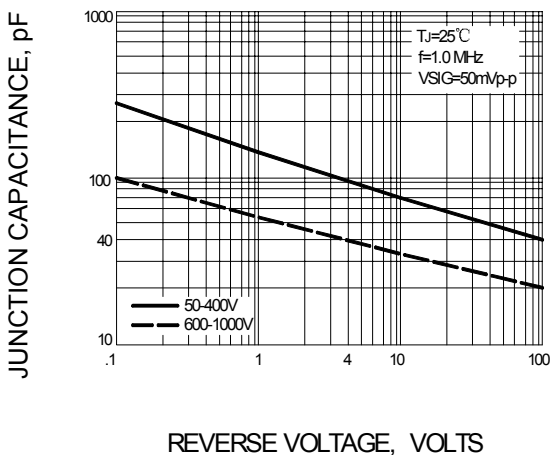
**FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**



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



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

