

SILICON BRIDGE RECTIFIER

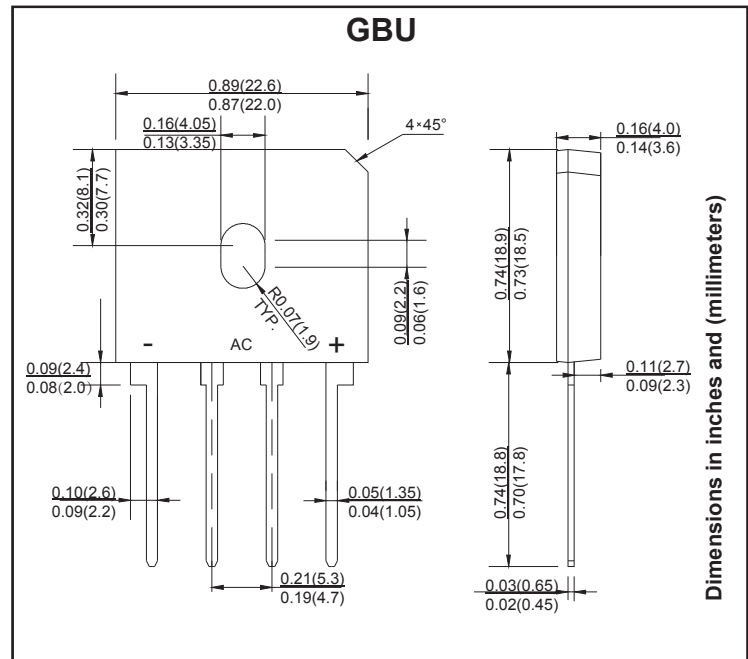
VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 25.0 A

FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- 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%.

		GBU 25A	GBU 25B	GBU 25D	GBU 25G	GBU 25J	GBU 25K	GBU 25M	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 @ $T_c=100^\circ\text{C}$	$I_{F(AV)}$	25.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	340							A
Maximum instantaneous forward voltage at 12.5 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							μA mA
Typical junction capacitance per leg (note 3)	C_J	211				94			pF
Typical thermal resistance per leg (note 2)	$R_{\theta JA}$	21.0							$^\circ\text{C}/\text{W}$
(note 1)	$R_{\theta JC}$	2.2							
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 3.2x3.2x0.12" thick (6.2x8.2x0.3cm) Al. Plate.

2. Units mounted in free air, no heat sink on P.C.B., 0.5x0.5"(12x12mm) copper pads, 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

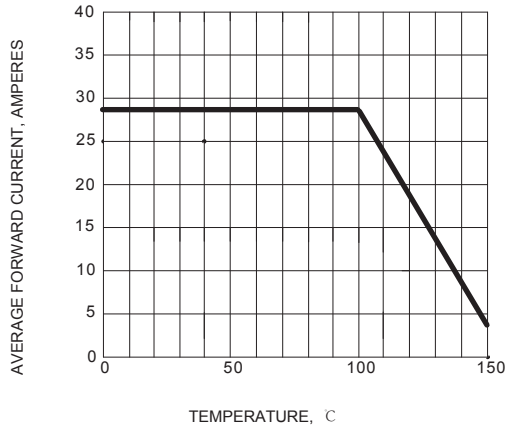


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

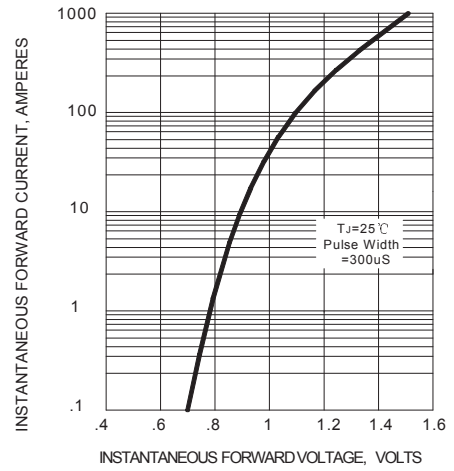


FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

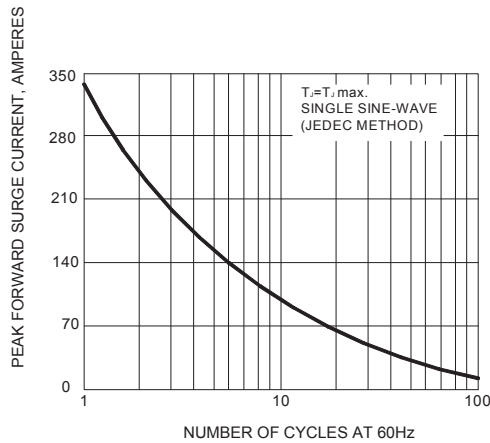


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

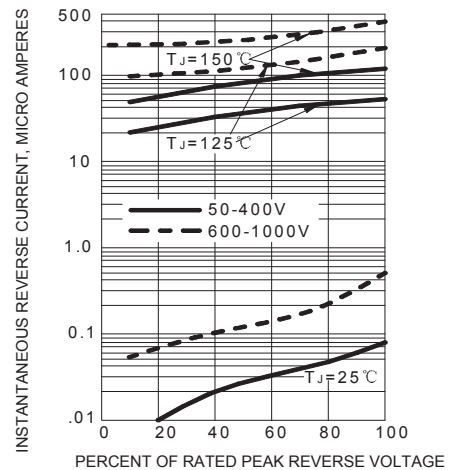


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG

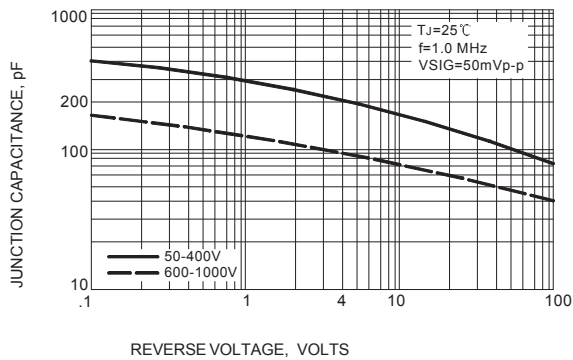


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

