

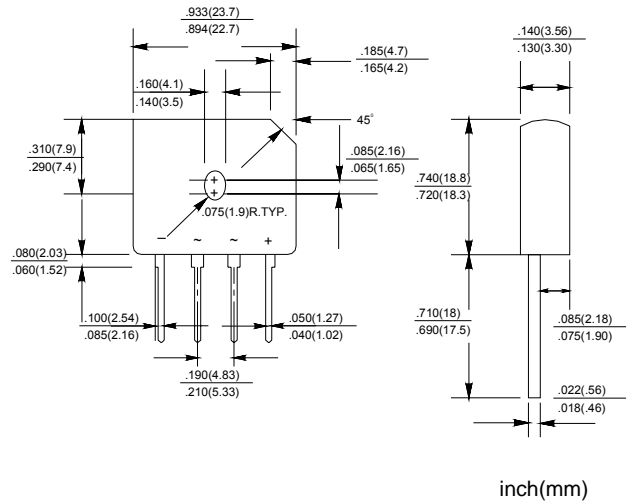
SILICON BRIDGE RECTIFIERS

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
- ◇ Mounting position: Any

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 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 $T_c=100^\circ\text{C}$ output current	$I_{F(AV)}$	25.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	240.0							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) (note 1)	$R_{\theta JA}$ $R_{\theta JC}$	21.0 2.2							$^\circ\text{C}/\text{W}$
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 3.2x3.2x0.12" thick (6.2x8.2x0.3cm) Al. Plate.

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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.

FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

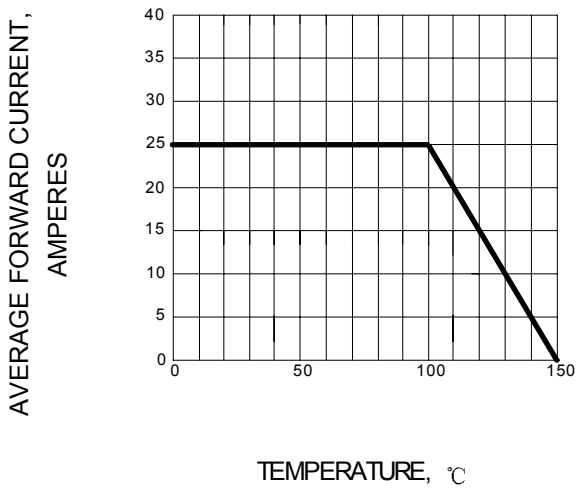


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

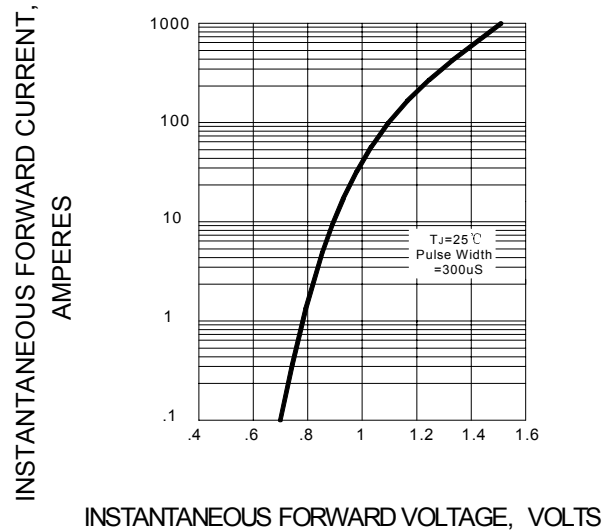


FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

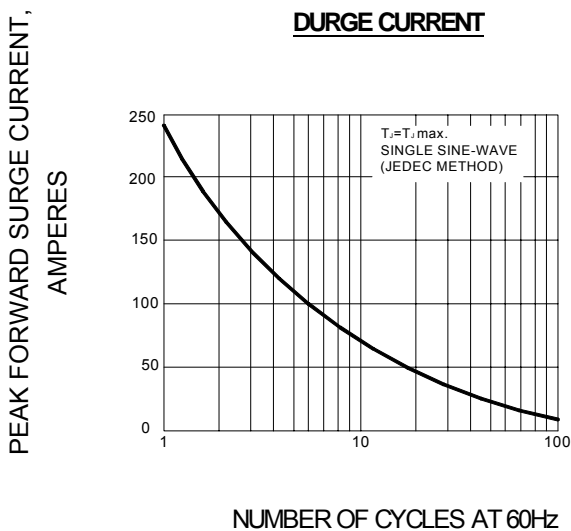


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

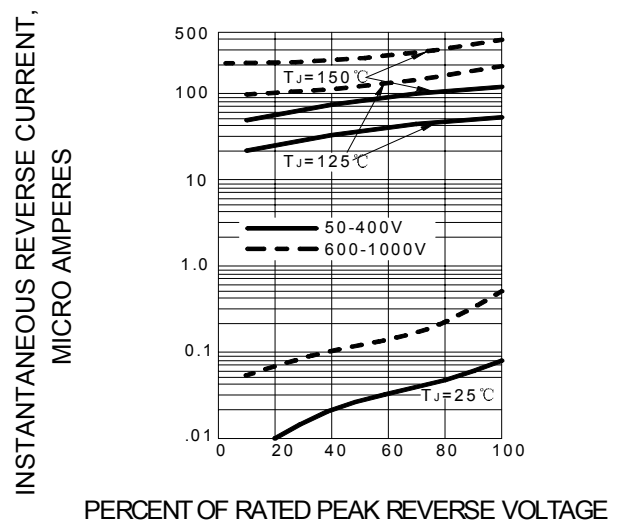


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG

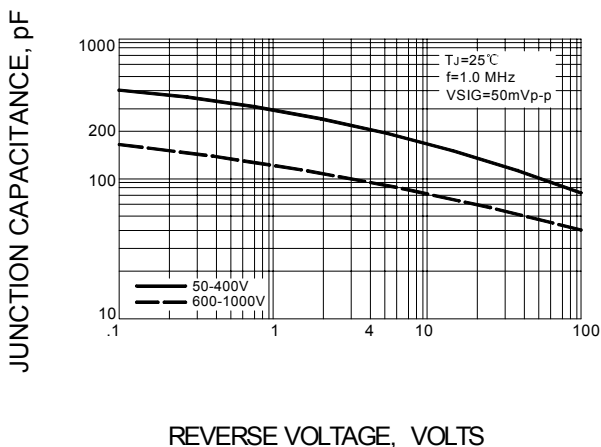


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

