

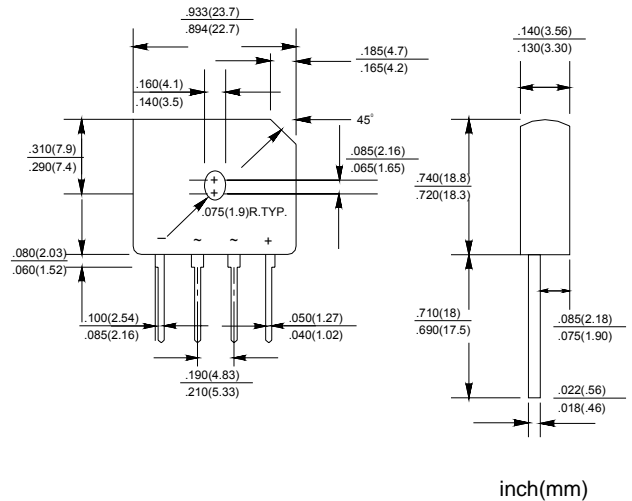
SILICON BRIDGE RECTIFIERS

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 @ $T_A=40^\circ\text{C}$ (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			μA 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

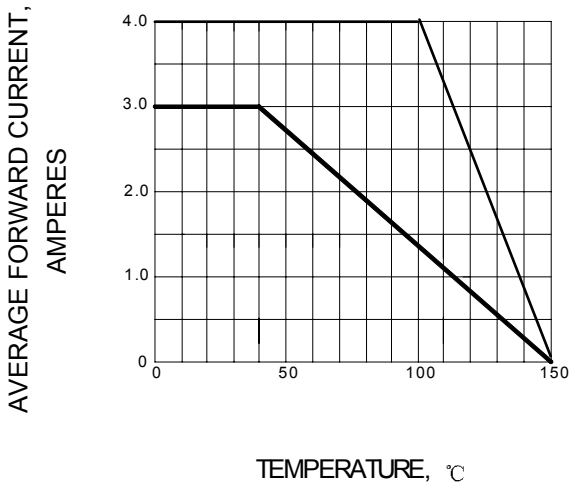


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

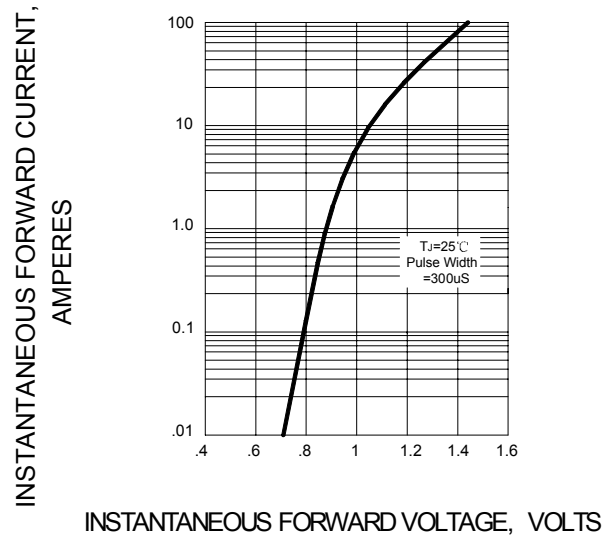


FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

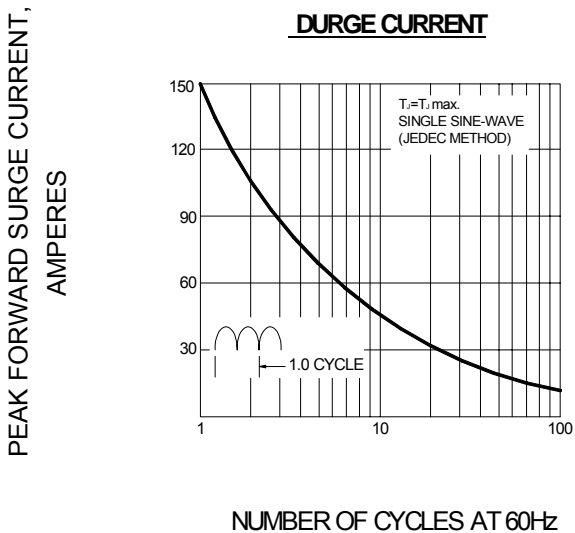


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

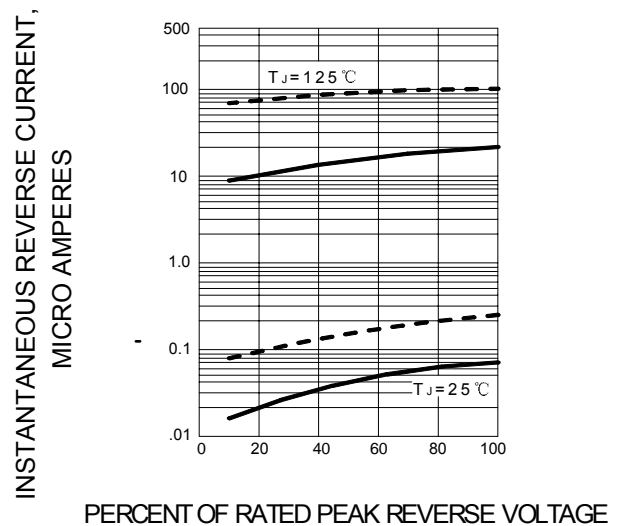


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG

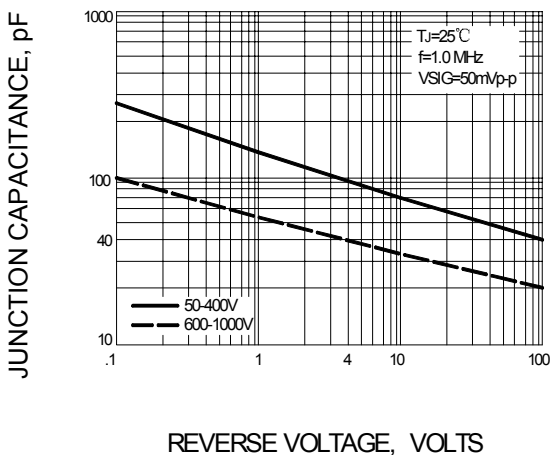


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

