

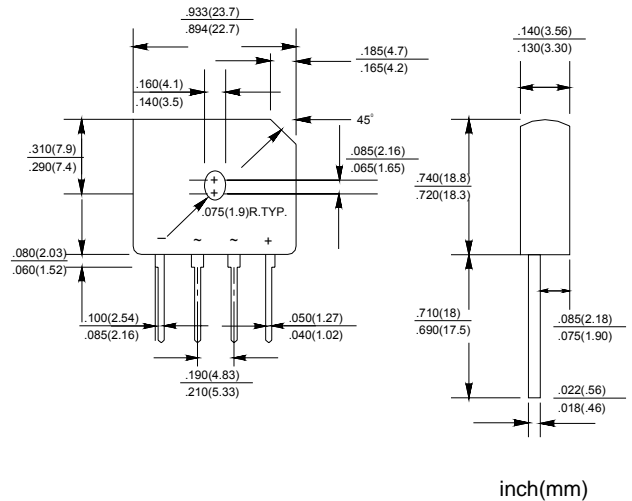
SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 10.0 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 10A | GBU 10B | GBU 10D | GBU 10G | GBU 10J | GBU 10K | GBU 10M | 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 Tc=100°C | $I_{F(AV)}$ | 10 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 200 | | | | | | | A |
| Maximum instantaneous forward voltage at 10 A | V_F | 1.1 | | | | | | | V |
| Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C | I_R | 5.0 500 | | | | | | | μA |
| 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 2.2 | | | | | | | °C/W |
| Operating junction temperature range | T_J | - 55 ---- + 150 | | | | | | | °C |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | | | | | | °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

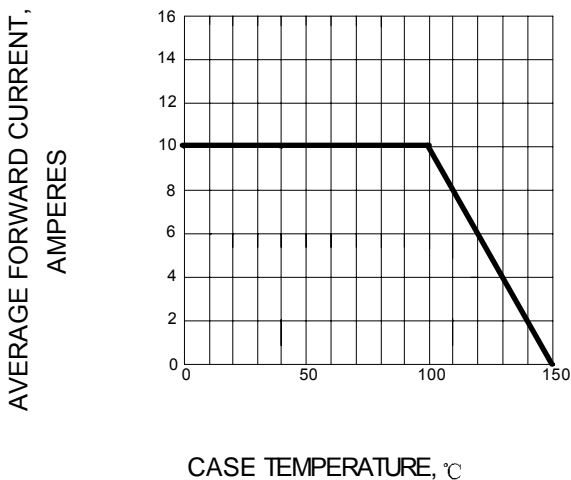


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

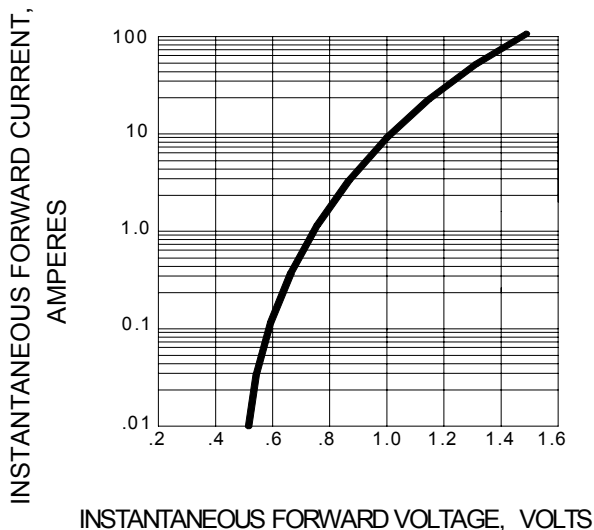


FIG.3 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

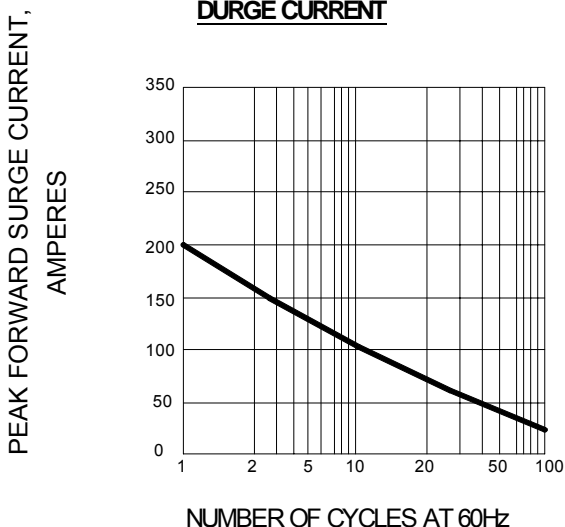


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

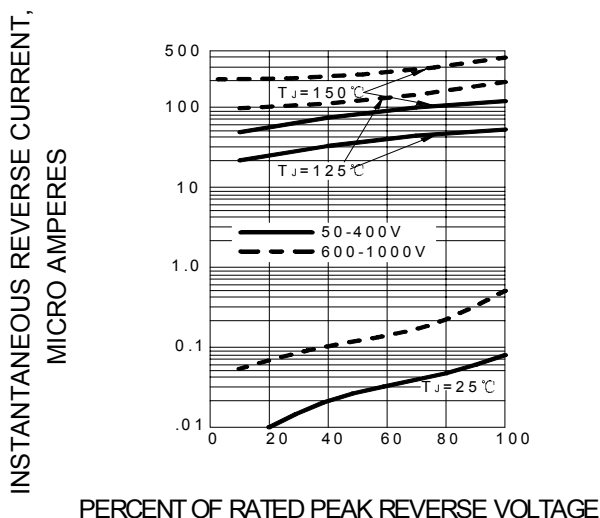


FIG.5 – TYPICAL JUNCTION CAPACITANCE PER LEG

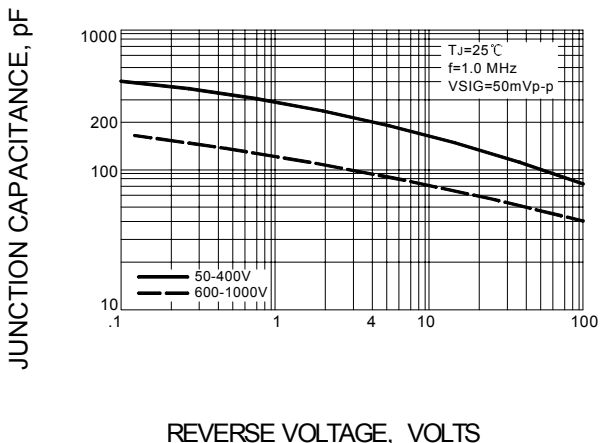


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

