

GBU4A ~ GBU4M

PRV : 50 - 1000 Volts
Io : 4.0 Amperes

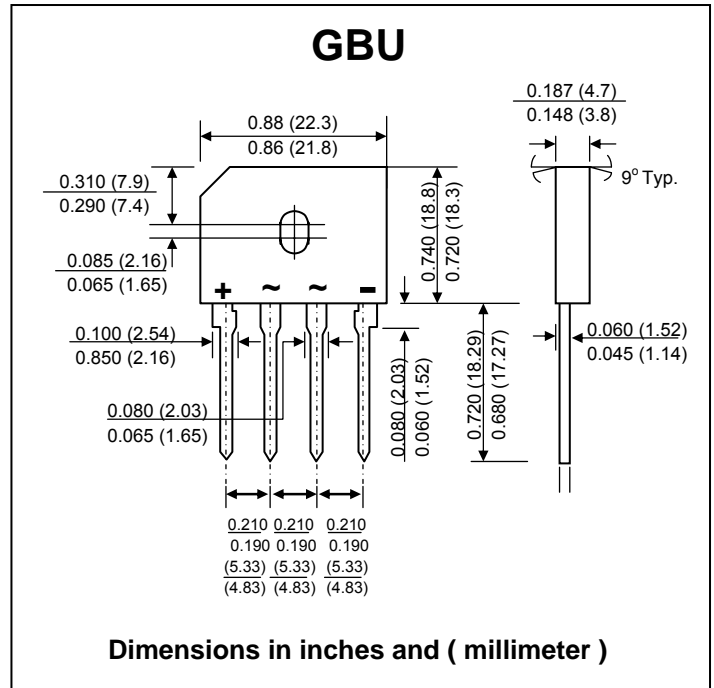
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Very good heat dissipation
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Reliable low cost construction utilizing molded plastic technique
- * Terminals : Plated lead solderable per MIL-STD-705, Method 2026
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 4.0 grams

SILICON BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

RATING	SYMBOL	GBU 4A	GBU 4B	GBU 4D	GBU 4G	GBU 4J	GBU 4K	GBU 4M	UNIT
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_R	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	4.0							A
Maximum Peak Forward Surge Current (Single sine-wave Superimposed on rated load)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage drop per leg at $I_F = 4.0\text{ A}$	V_F	1.0							V
Maximum DC Reverse Current $T_j = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage per leg $T_j = 125\text{ }^\circ\text{C}$	I_R	5.0							μA
	$I_{R(H)}$	500							μA
Typical junction Capacitance per leg (Note 3)	C_j	100				45			pF
Typical Thermal Resistance, Junction to Case (Note 1)	$R_{\theta JC}$	4.2							$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{STG}	- 55 to + 150							$^\circ\text{C}$

Notes :

- (1) Unit case mounted on 1.6"x1.6"x0.06" THK (4.0x4.0x0.15cm) Al. Plate
- (2) Units mounted on P.C. Board with 0.5"x0.5" (12mmx15mm) copper pads and 0.375"(9.5mm) lead length
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 volt

RATING AND CHARACTERISTIC CURVES (GBU4A THRU GBU4M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

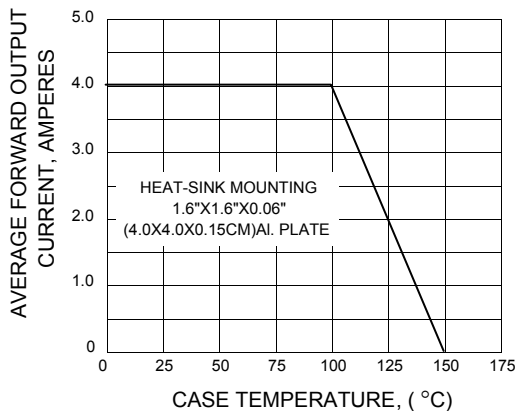


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

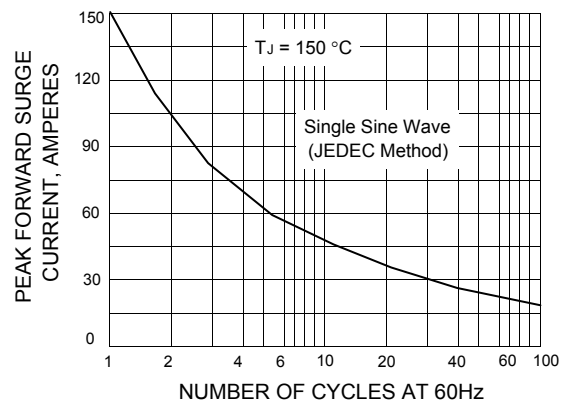


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

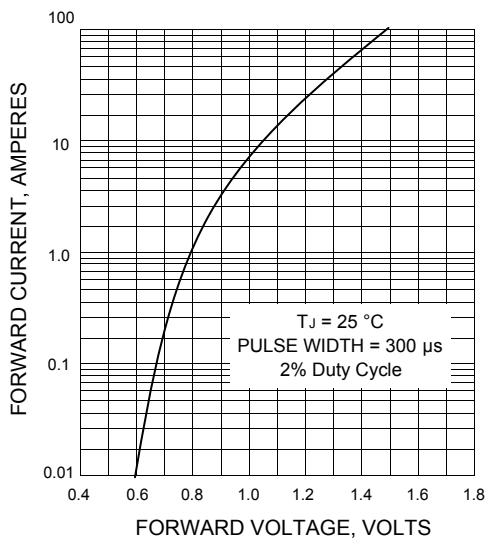


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

