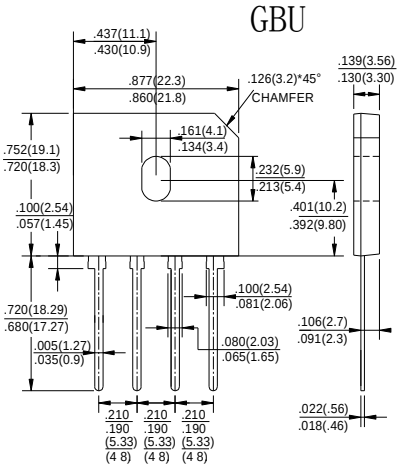
GBU8005 THRU GBU810

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Amperes

FEATURES

Ideal for printed circuit boards
Reliable low cost construction technique results in inexpensive product
High temperature soldering guaranteed: 260℃/10 seconds/0.375" (9.5mm) lead length at 5 lbs.,(2.3kg) tension



MECHANICAL DATA

Case: Molded plastic
Lead: Solder plated
Polarity:As marked

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GBU810	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum Average Forward (with heatsink Note 2) Rectified Current @ T_C=100℃ (without heatsink)	$I_{(AV)}$	8.0 2.8							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175							Amps
Maximum instantaneous forward voltage at 4.0A	V_F	1.00							Volts
Maximum instantaneous forward voltage at 8.0A	V_F	1.10							Volts
Maximum DC reverse current at T_A=25℃ rated DC blocking voltage per leg T_A=125℃	I_R	5.0 500							μA
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.0							°C/W
Typical Junction Capacitance Per Element (Note1)	C_J	50							pF
I^2t Rating for Fusing (t<8.3ms)	I^2t	127.1							A^2s
Operating temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

Notes: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.

RATINGS AND CHARACTERISTIC CURVES GBU8005 THRU GBU810

Fig. 1 - Forward Current Derating Curve

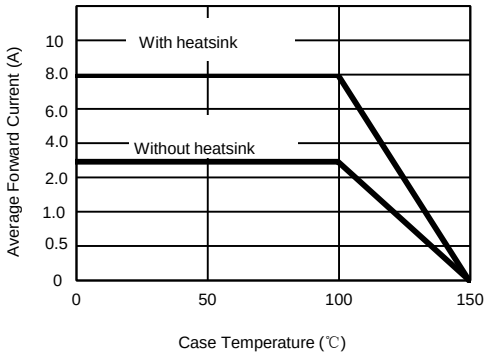


Fig. 2 - Maximum Non-Repetitive Surge Current

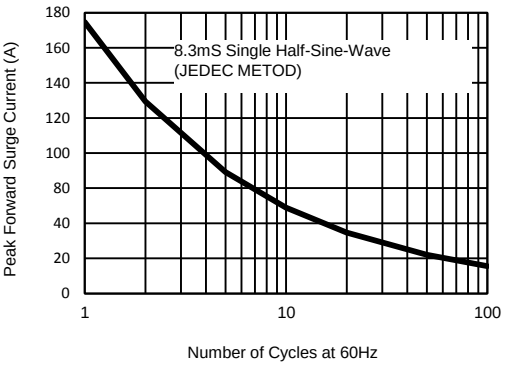


Fig. 3 - Typical Reverse Characteristics

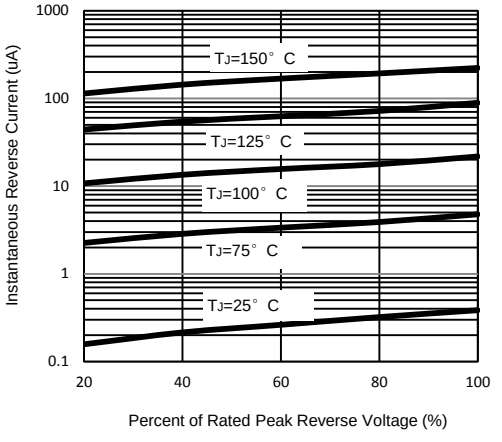


Fig. 4 - Typical Forward Characteristics

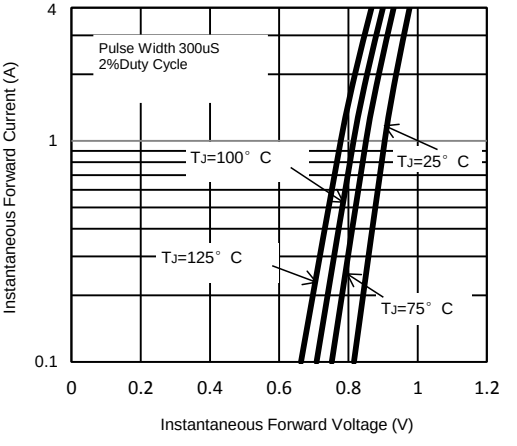


Fig. 5 - Typical Junction Capacitance