



GBU4005 THRU GBU410

SILICON BRIDGE RECTIFIERS

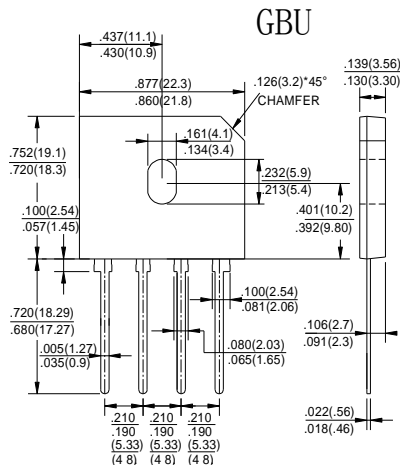
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

FEATURES

Ideal for printed circuit boards
 Reliable low cost construction technique
 results in inexpensive product
 High temperature soldering guaranteed:
 260°C/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°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	GBU4005	GBU401	GBU402	GBU404	GBU406	GBU408	GBU410	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 @ $T_c=100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$					4.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					125			Amps
Maximum instantaneous forward voltage at 2.0A	V_F					0.95			Volts
Maximum instantaneous forward voltage at 4.0A	V_F					1.05			Volts
Maximum DC reverse current at $T_A=25^\circ\text{C}$ rated DC blocking voltage per leg $T_A=125^\circ\text{C}$	I_R					5.0			μA
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$					2.2			$^\circ\text{C}/\text{W}$
Typical Junction Capacitance Per Element (Note1)	C_J					45			pF
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t					64.8			A^2s
Operating temperature range	T_J					-55 to +150			$^\circ\text{C}$
storage temperature range	T_{STG}					-55 to +150			$^\circ\text{C}$

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 GBU4005 THRU GBU410

Fig. 1 - Forward Current Derating Curve

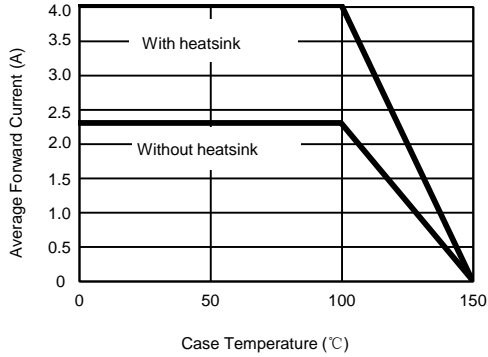


Fig. 2 - Maximum Non-Repetitive Surge Current

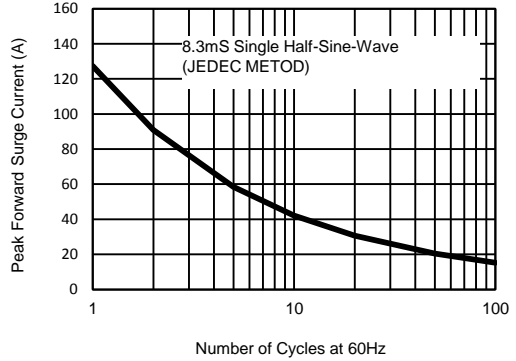


Fig. 3 - Typical Reverse Characteristics

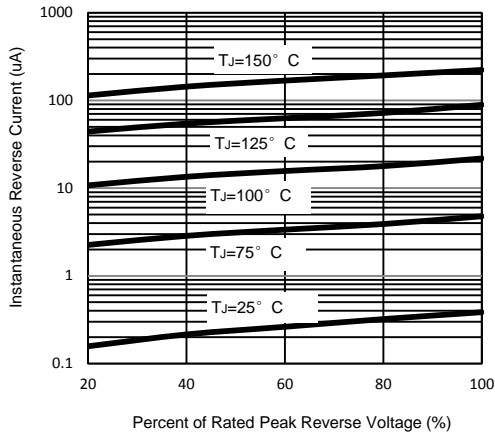


Fig. 4 - Typical Forward Characteristics

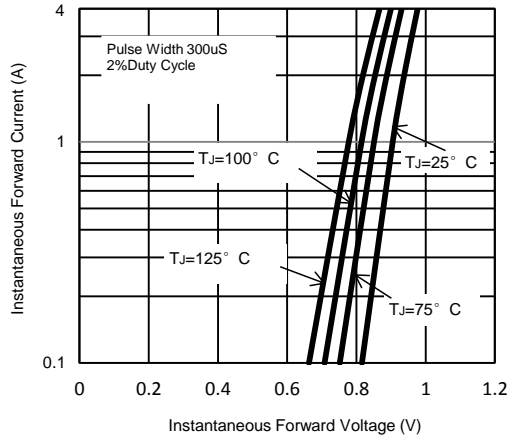


Fig. 5 - Typical Junction Capacitance

