

GBU4005 THRU GBU410

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 4.0 Ampere

FEATURES

- ◆ Surge overload rating -150 amperes peak
- ◆ Ideal for printed circuit boards
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ flammability classification 94V-0
- ◆ Mounting position: Any
- ◆ Weight: 0.138 ounces , 3.9grams

MAXIMUM RATINGS AND

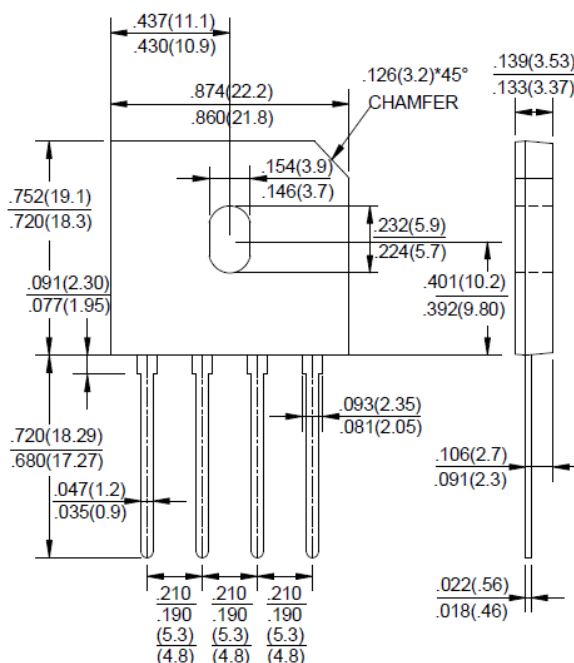
ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise

Specified. Single phase, half wave, 60Hz, resistive or inductive

load. For capacitive load, derate current by 20%

GBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	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_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward (with heatsink Note 2) Rectified Current @ $T_C = 100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$					4.0 2.4			A
Peak forward surge current 8.3ms single half sine-wave Super imposed on rated load (JEDEC Method)	I_{FSM}					150			A
Maximum forward voltage at 4.0A DC	V_F					1.1			V
Maximum DC reverse current at rated DC blocking voltage	@ $T_j = 25^\circ\text{C}$					10.0			μA
	@ $T_j = 125^\circ\text{C}$					500			
I^2t rating for fusing ($t < 8.3\text{ms}$)	I^2t					93			A^2s
Typical junction capacitance per element (Note 1)	C_J					45			pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$					26			$^\circ\text{C}/\text{W}$
Typical thermal resistance (Note 4)	$R_{\theta JC}$					2.2			$^\circ\text{C}/\text{W}$
Operating temperature range	T_J					-55 to +150			$^\circ\text{C}$
Storage temperature range	T_{STG}					-55 to +150			$^\circ\text{C}$

Note

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Device mounted on 50mm*50mm*1.6mm cu plate heatsink.
- (3) Thermal resistance from junction to ambient.
- (4) Thermal resistance form junction to case.

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FIG.1-FORWARD CURRENT DERATING CURVE

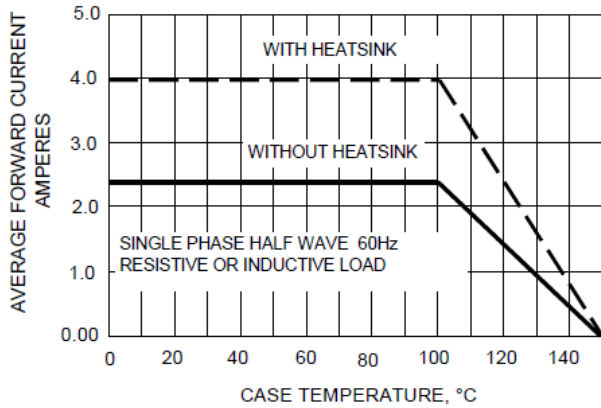


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

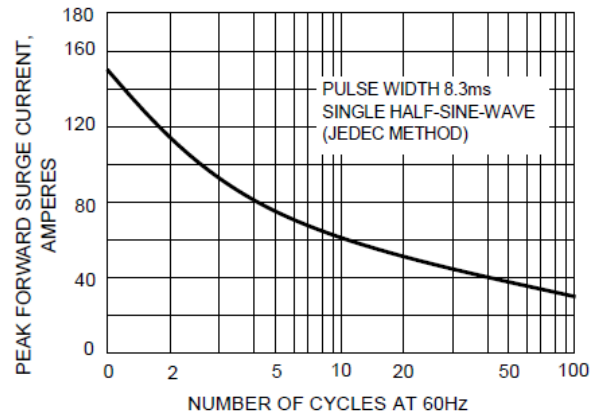


FIG.3-TYPICAL JUNCTION CAPACITANCE

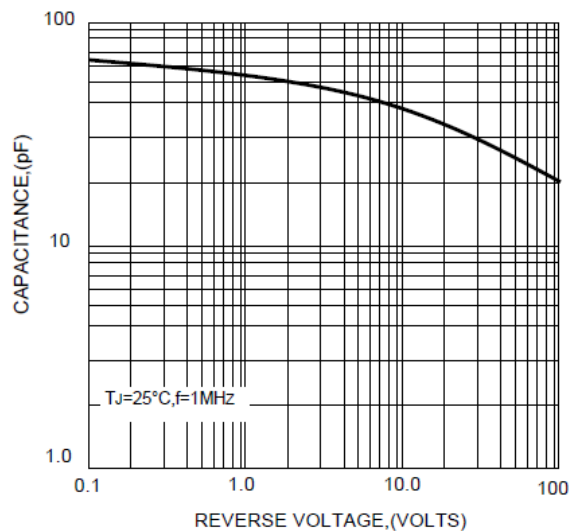


FIG.4-TYPICAL FORWARD CHARACTERISTICS

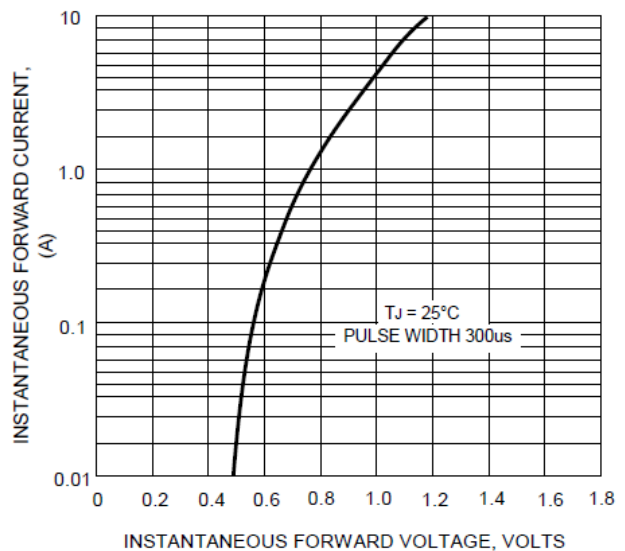
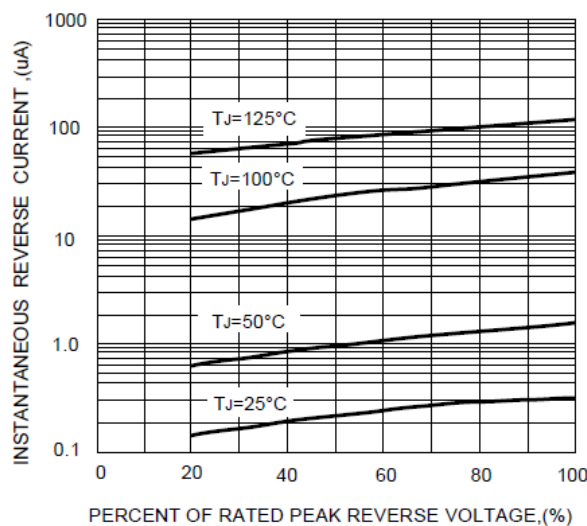


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.