

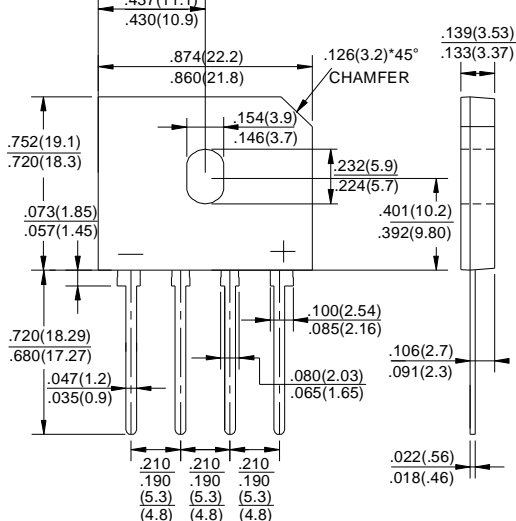


# GBU6005 THRU GBU610

## GLASS PASSIVATED BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes

### GBU



### FEATURES

- ◆ Surge overload rating -175 amperes peak
- ◆ 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

### 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%.

TWGMC Catalog Number	SYMBOLS	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	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)	$I_{(AV)}$					6.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$					175.0			Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$					127			$\text{A}^2\text{s}$
Maximum forward voltage at 3.0A DC	$V_F$					1.1			Volts
Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=125^\circ\text{C}$	$I_R$					10			$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$					50			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$					2.2			$^\circ\text{C}/\text{W}$
Operating junction 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 75mm\*75mm\*1.6mm cu plate heatsink.

# RATINGS AND CHARACTERISTIC CURVES GBU6005 THRU GBU610

FIG.1-FORWARD CURRENT DERATING CURVE

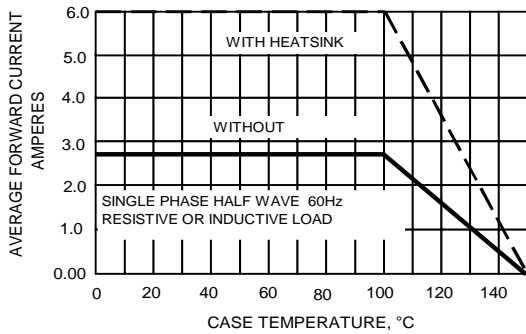


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

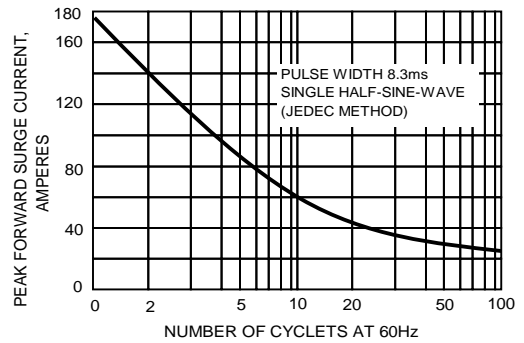


FIG.3-TYPICAL JUNCTION CAPACITANCE

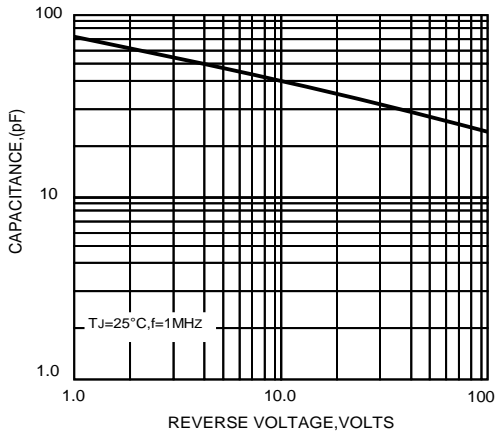


FIG.4-TYPICAL FORWARD CHARACTERISTICS

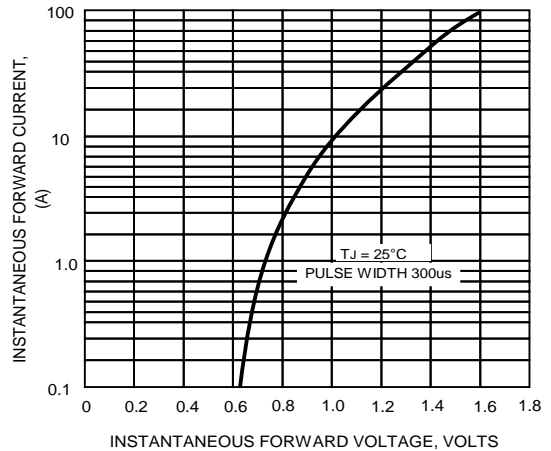


FIG.5-TYPICAL REVERSE CHARACTERISTICS

