

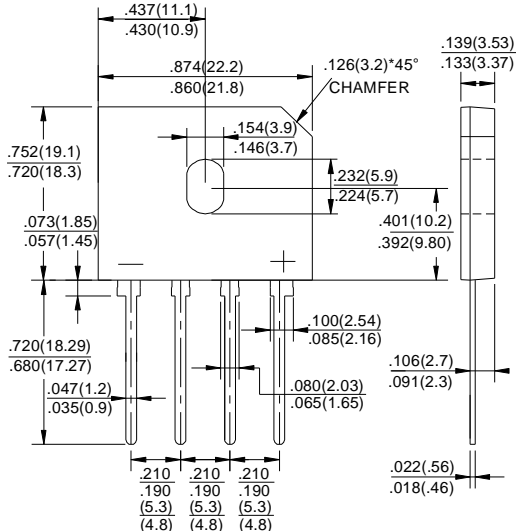


GBU6005 THRU GBU610

GLASS PASSIVATED BRIDGE RECTIFIERS

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

GBU



Dimensions in inches and (millimeters)

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						2.8		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								A^2s
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								μA
		500								μA
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

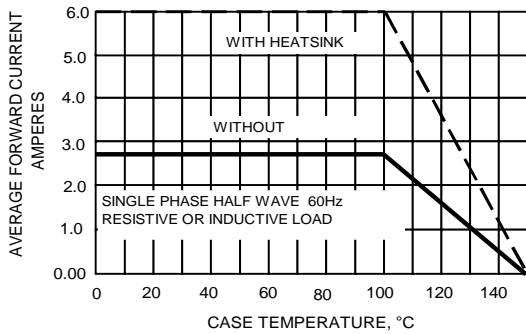


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

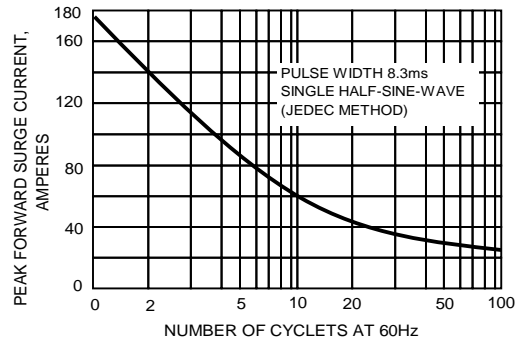


FIG.3-TYPICAL JUNCTION CAPACITANCE

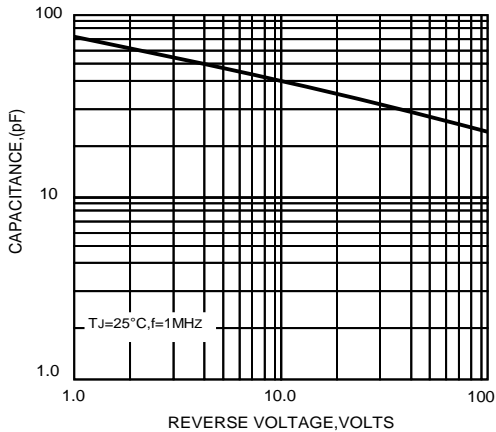


FIG.4-TYPICAL FORWARD CHARACTERISTICS

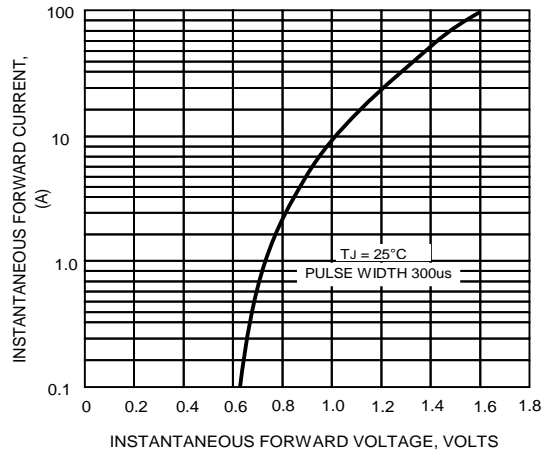


FIG.5-TYPICAL REVERSE CHARACTERISTICS

