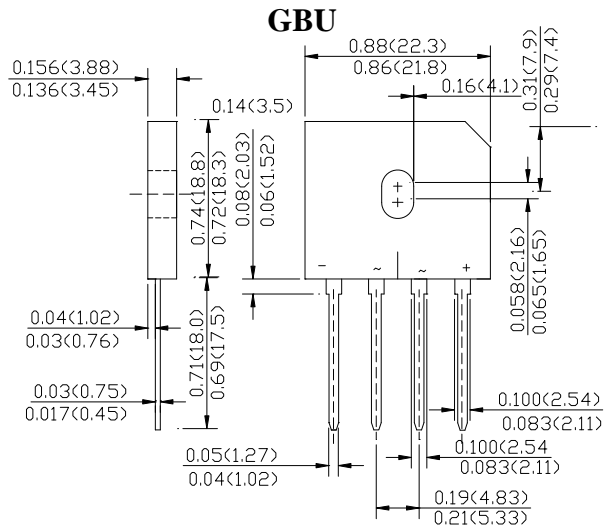


# SILICON BRIDGE RECTIFIERS GLASS PASSIVATED BRIDGE RECTIFIERS

## GBU6005 thru GBU610 SERIES 50 to 1000 V 6.0 A

### FEATURES

- Surge overload rating-150 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing Molded plastic technique
- Plastic material has Underwriters Laboratory Flammability classification 94V-0
- Mounting Position: Any



Dimensions in inches and Dimensions in inches and (millimeters)

### 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, derate current by 20%.

		GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610	Units
Maximum Recurrent 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 Note2) Rectified Current @ $T_c = 100^\circ\text{C}$ (without heatsink)	$I_{AV}$	6.0 2.8							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	175							Amp
Maximum DC Forward Voltage at 3.0A DC	$V_F$	1.0							Volts
Maximum DC Reverse Current at rated @ $T_A = 25^\circ\text{C}$ DC Blocking Voltage Per Element @ $T_A = 125^\circ\text{C}$	$I_R$	5 500							uAmp
$I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	127							$\text{A}^2\text{S}$
Typical Junction Capacitance ( Note 1)	$C_J$	50							pF
Typical Thermal Resistance ( Note 2)	$R_{\theta JC}$	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							$^\circ\text{C}$

#### Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm x 75mm X 1.6mm Cu Plate Heatsink.

**RATINGS AND CHARACTERISTIC CURVES (GBU6005 THRU GBU610)**

FIG. 1 - FORWARD CURRENT DERATING CURVE

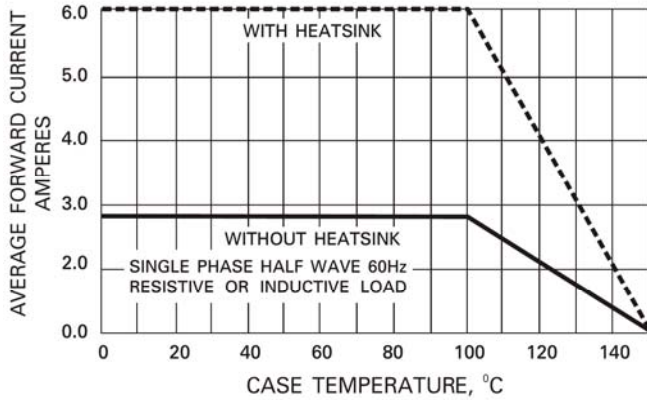


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

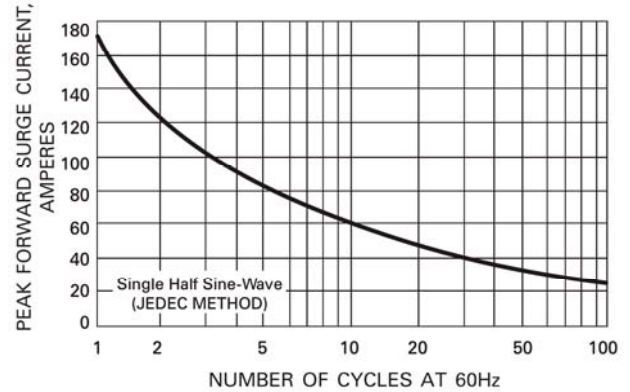


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

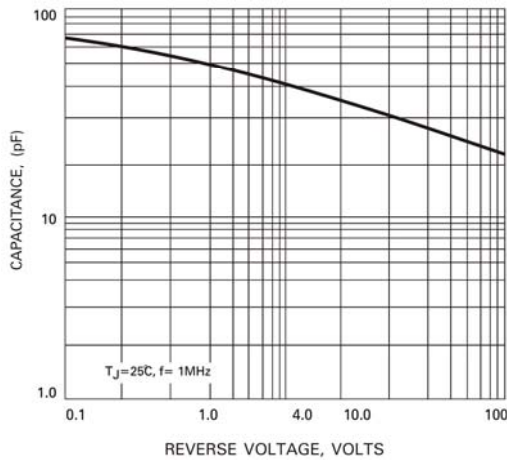


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

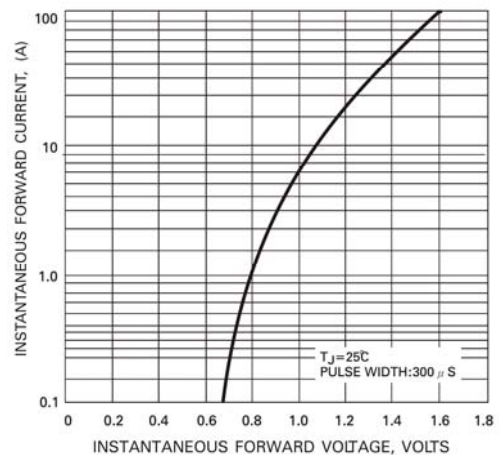


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

