

## GBU6005 THRU GBU610

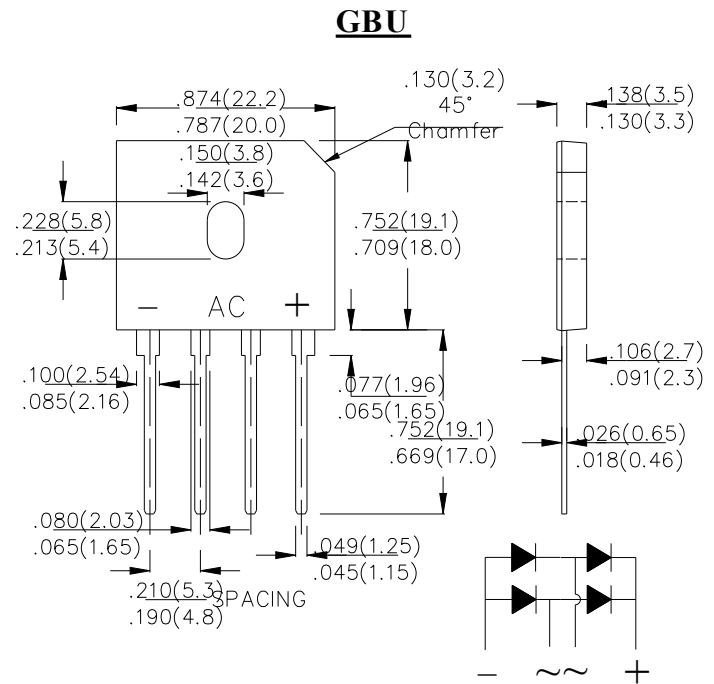
### SINGLE PHASE 6.0AMPS.GLASS PASSIVATED BRIDGE RECTIFIERS

#### FEATURE

- . Ideal for printed circuit board
- . Glass passivated chip junctions
- . High case dielectric strength
- . Low leakage
- . Low forward voltage
- . High surge current capability
- . High temperature soldering guaranteed:  
260°C/10seconds/.375”(9.5mm) lead lengths.

#### MECHANICAL DATA

- . Case: Molded plastic body
- . Epoxy: UL 94V-0 rate flame retardant
- . Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Symbols molded or marked on body
- . 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, derate current by 20%

Type Number	SYM BOL	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	4000	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	800	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward rectified Output Current at $T_C=90^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150							A
Maximum Forward Voltage Drop per element at 6.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$	10.0 500.0							$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93							$\text{A}^2\text{Sec}$
Typical Junction Capacitance (Note 1)	$C_J$	45							pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.2							$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150							$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150							$^\circ\text{C}$

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case Mounted on P.C.B with  $0.47 \times 0.47$ " ( $12 \times 12\text{mm}$ ) Copper Pads.

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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

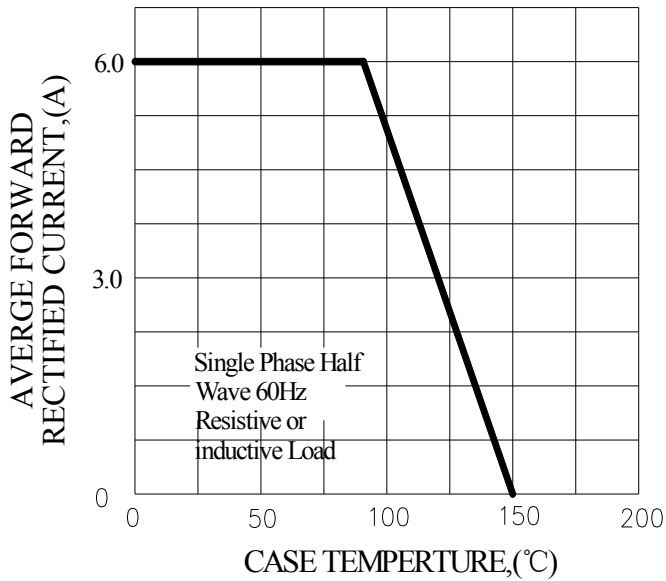


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

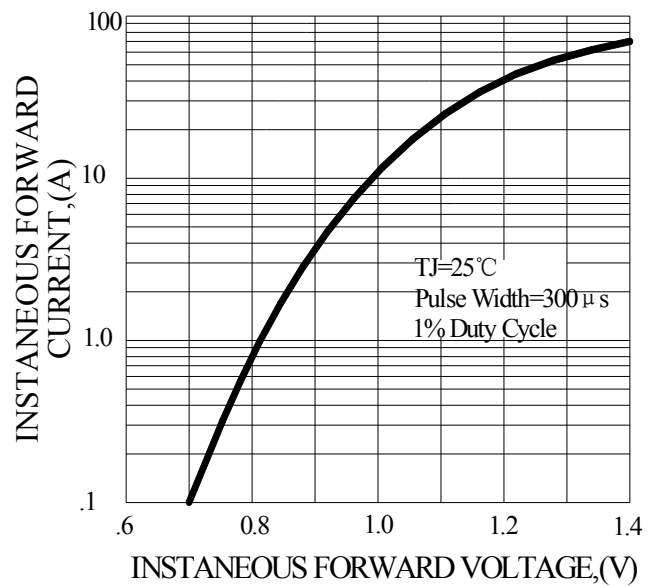


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

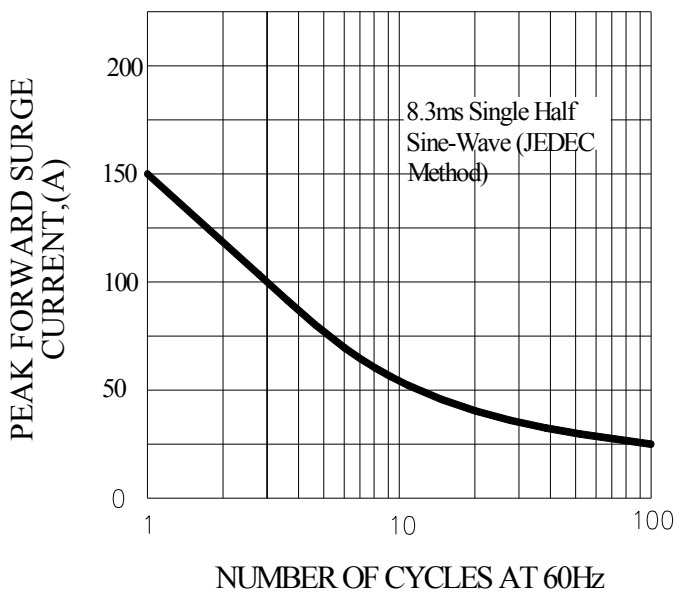
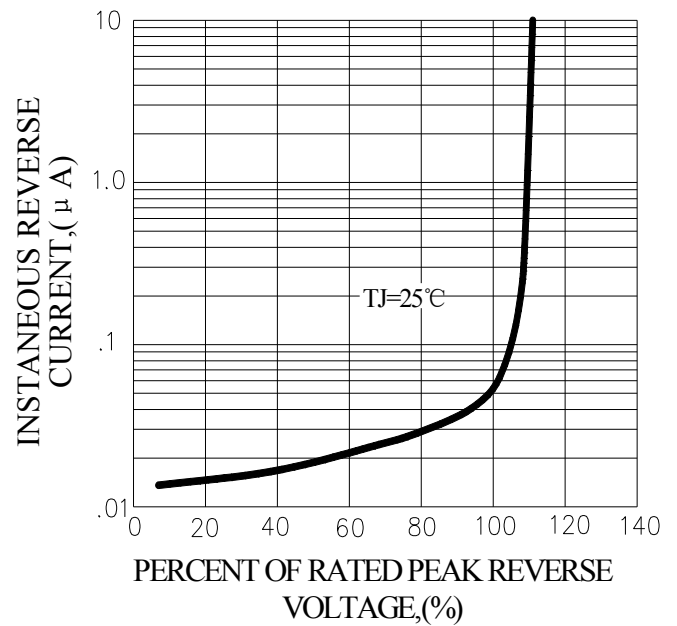


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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