



# GBU4005 THRU GBU410

PINGWEI ENTERPRISE

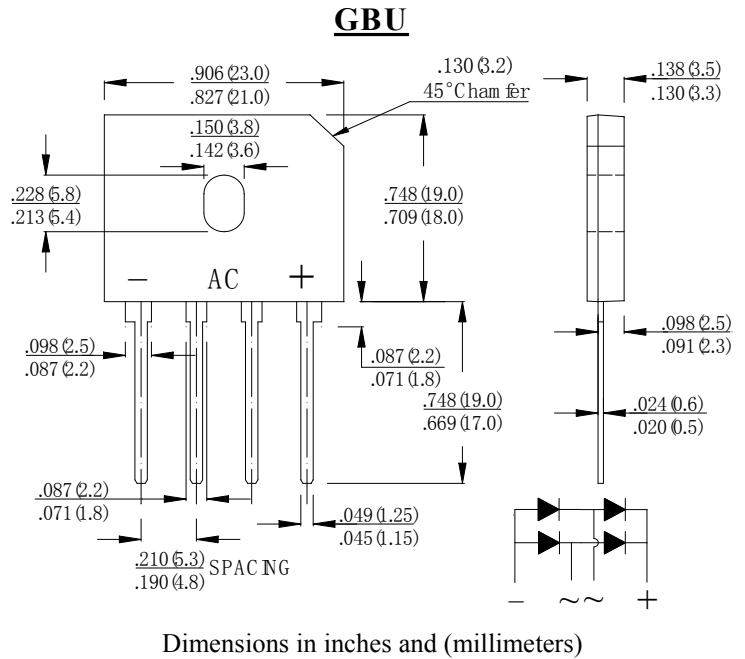
## SINGLE PHASE 4.0 AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

### FEATURE

- . UL Listed Under Recognized Component Index, File Number E338195
- . Glass passivated chip junctions
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications

### MECHANICAL DATA

- . Case: GBU
- . Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free. Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Molded on Body
- . Mounting: Through Hole for #6 Screw
- . Mounting Torque: 5.0 in-lbs Maximum
- . Weight: 3.8 grams



### 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 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	units	
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 Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{F(AV)}$	4.0						2.4		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150								A
Maximum Forward Voltage @ 4.0A DC Drop per element @ 2.0A DC	$V_F$	1.1						1.0		V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0						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)	$C_J$	40								pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	3.0								$^\circ\text{C}/\text{W}$
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. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

# RATING AND CHARACTERISTIC CURVES (GBU4005 THRU GBU410)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

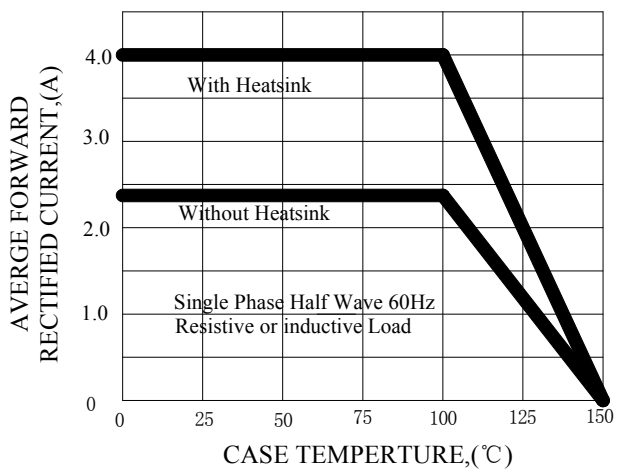


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

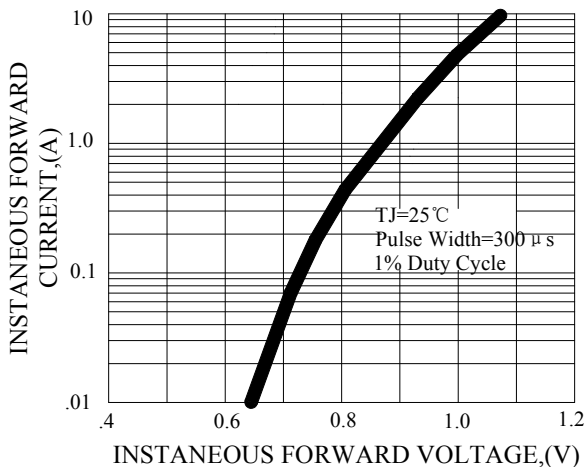


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

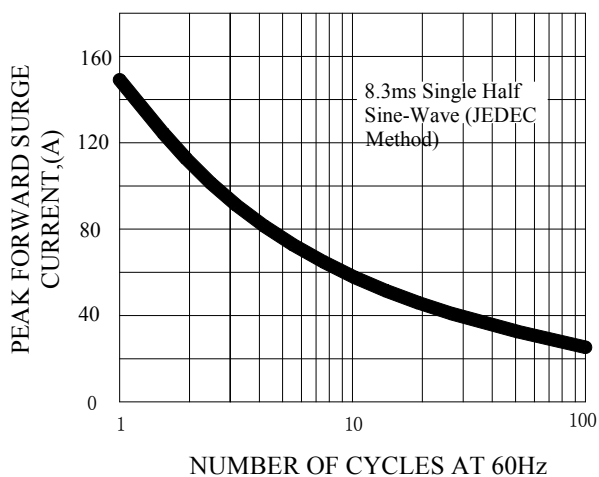


FIG.4-TYPICAL JUNCTION CAPACITANCE

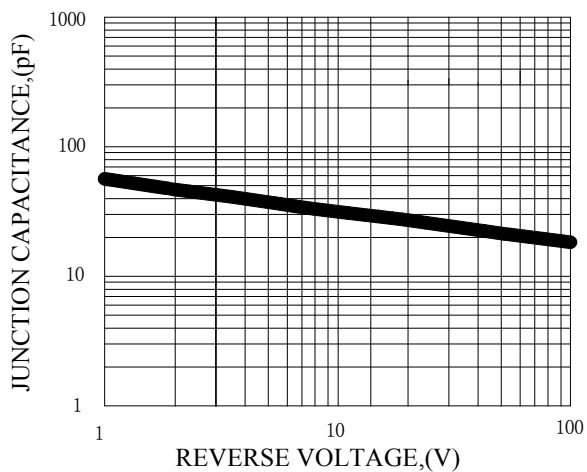


FIG.5-TYPICAL REVERSE CHARACTERISTICS

