

## GBPR310

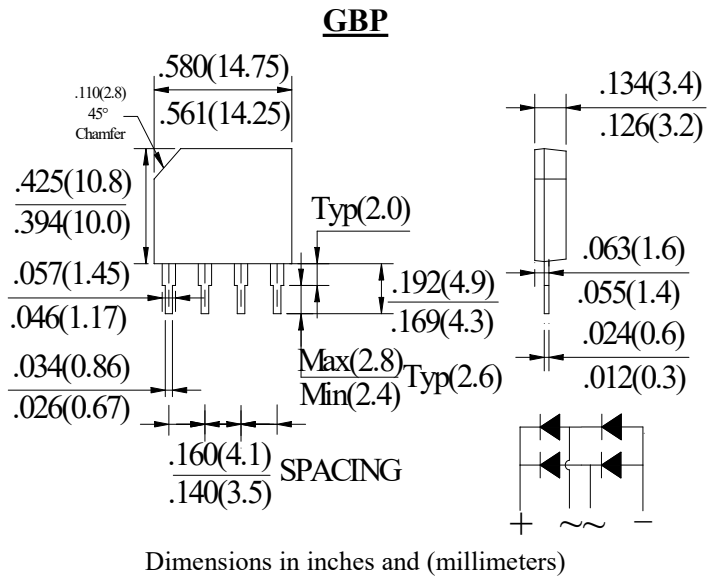
### SINGLE PHASE 3.0AMPS. GLASS PASSIVATED FAST BRIDGE RECTIFIERS

#### FEATURE

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

#### MECHANICAL DATA

- . Case: GBP
- . Case Material: Molded Plastic.  
UL Flammability Classification Rating 94V-0
- . Terminals: Fog tin plated, Lead free.  
Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Marked on body



### 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	GBPR310	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward rectified Output Current	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	80	A
Maximum Forward Voltage Drop per element at 3.0A DC	$V_F$	1.3	V
Maximum DC Reverse Current @ $T_j=25^\circ\text{C}$ at rated DC blocking voltage @ $T_j=125^\circ\text{C}$	$I_R$	10.0 500.0	$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	500	nS
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	26.56	$\text{A}^2\text{Sec}$
Typical Junction Capacitance (Note 1)	$C_J$	25	pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	7	$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150	$^\circ\text{C}$

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink



**RATING AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

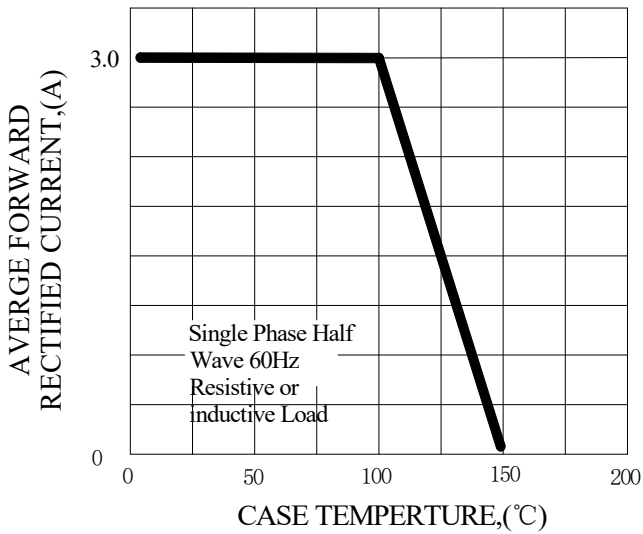


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

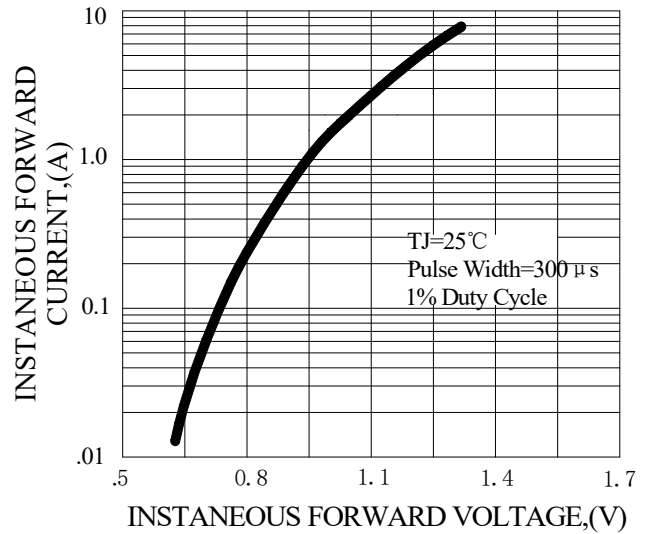


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

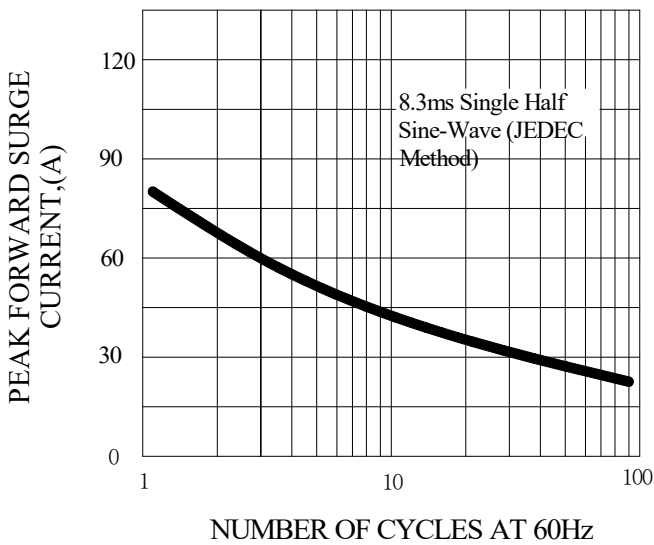


FIG.4-TYPICAL REVERSE CHARACTERISTICS

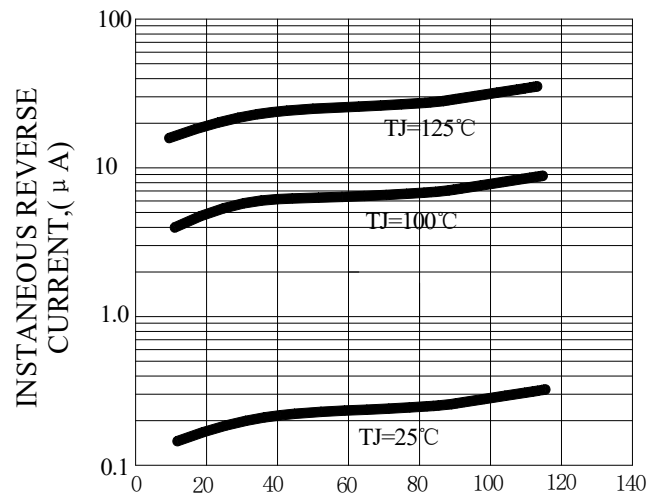
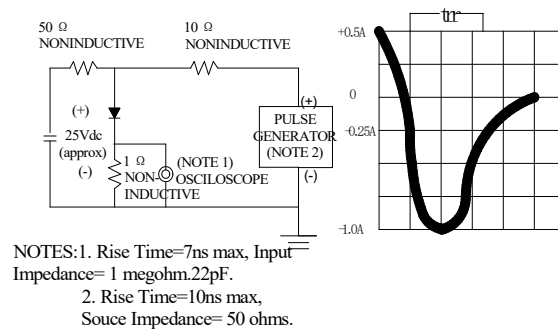
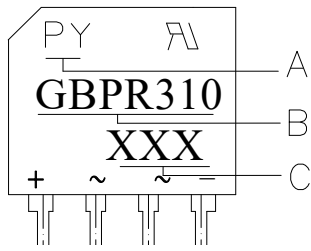


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



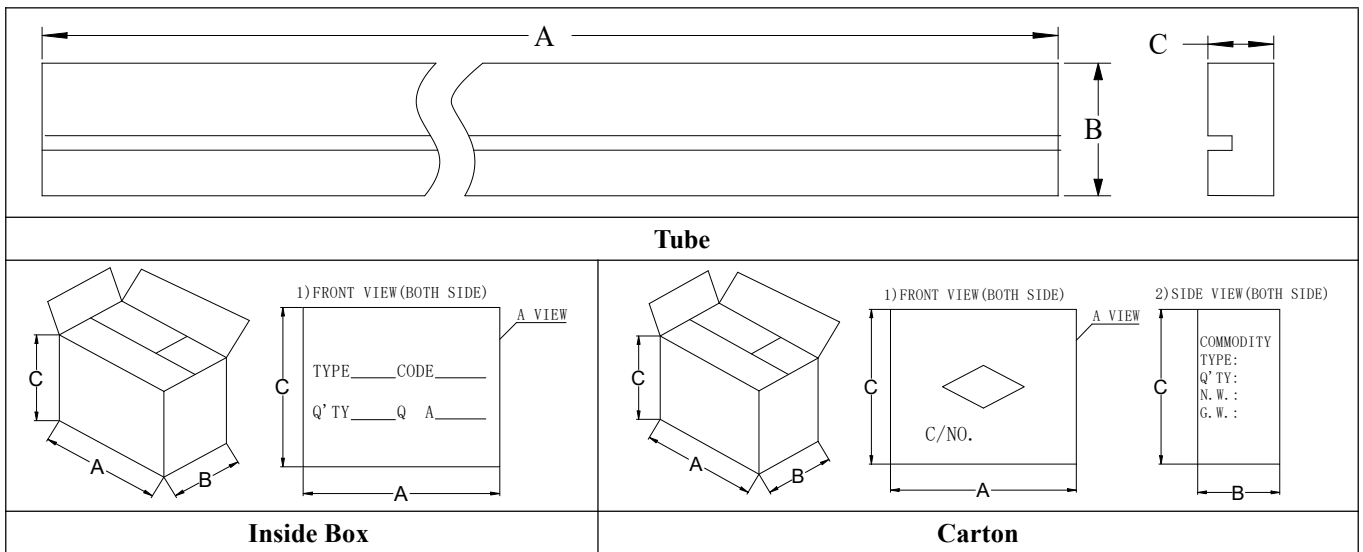
## Marking and packaging illustration

### 1、Marking



SYMBOL	Explanation
<b>A</b>	Trademark
<b>B</b>	Product Name
<b>C</b>	Date code

### 2、Packaging



OUTLINE	A (mm)	B (mm)	C (mm)
Tube	390 ± 1	28.8 ± 1	6.1 ± 1
Inside box	395 ± 3	155 ± 3	155 ± 3
Carton	420 ± 5	180 ± 5	325 ± 5

COUNT	TUBE (PCS)	BOX (PCS)	CARTON (PCS)
GBP	25	2500	5000