

GBPR410

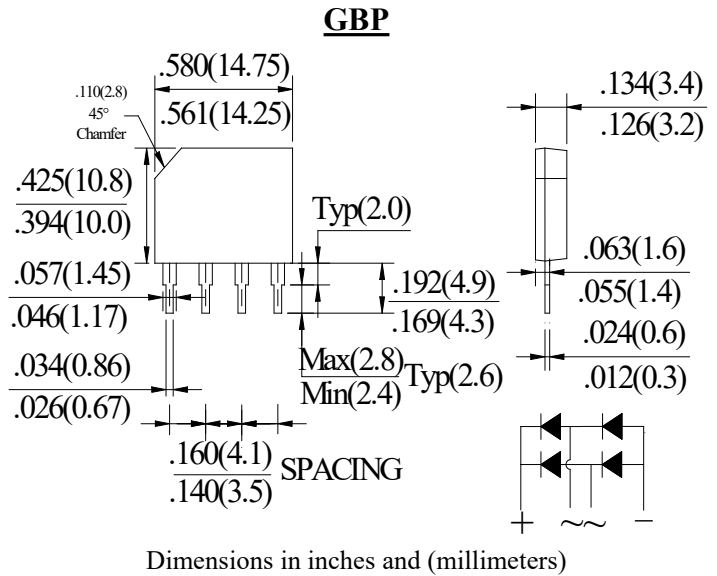
SINGLE PHASE 4.0AMPS.GLASS PASSIVATED FAST BRIDGE RECTIFIERS

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	GBPR410	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 (with heatsink Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{F(AV)}$	4.0 1.8	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	120	A
Maximum Forward Voltage Drop per element @ 4.0A 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	5.0 500.0	μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	59.7	A^2Sec
Maximum Reverse Recovery Time (Note 1)	t_{rr}	500	nS
Typical Junction Capacitance (Note 2)	C_J	35	pF
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	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. 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

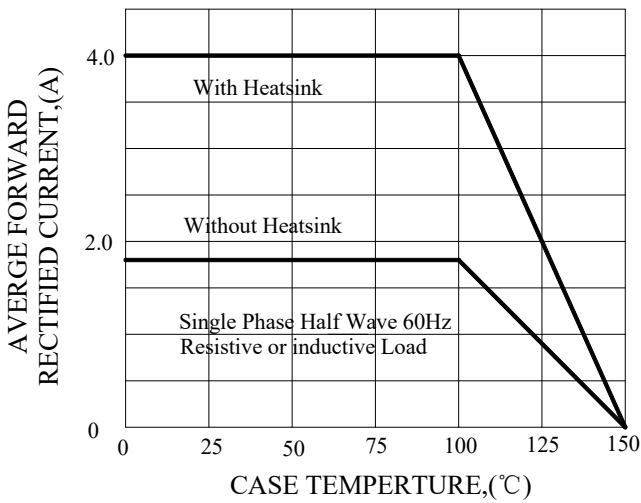


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

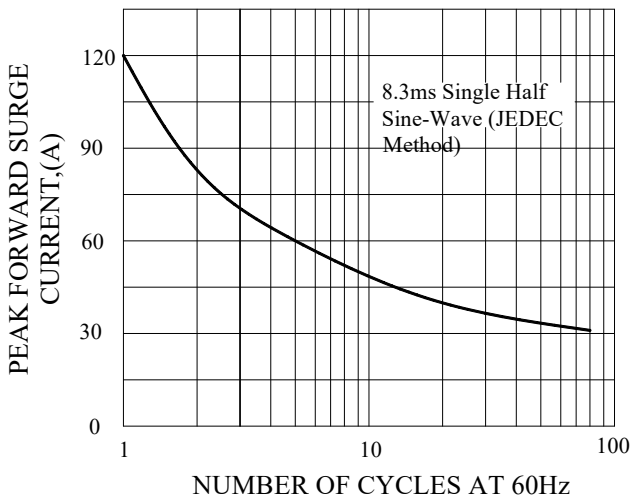


FIG.5-TYPICAL REVERSE CHARACTERISTICS

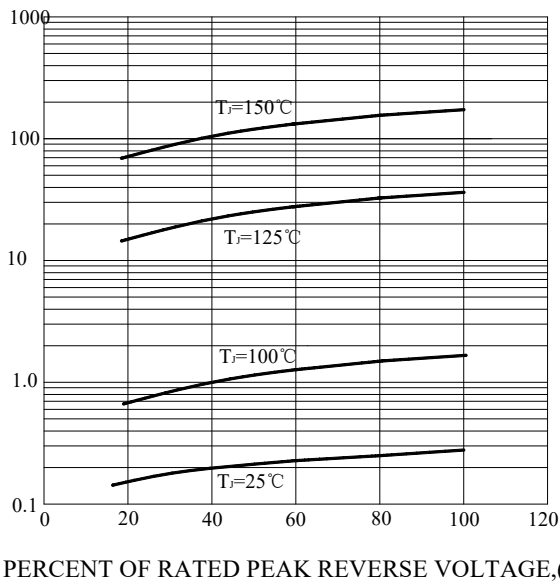


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

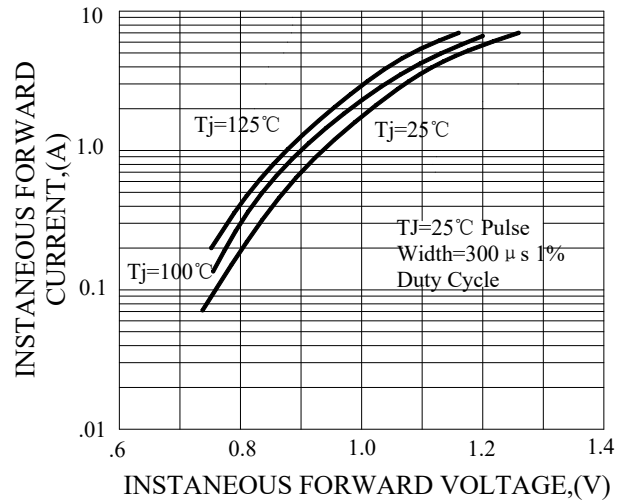


FIG.4-TYPICAL JUNCTION CAPACITANCE

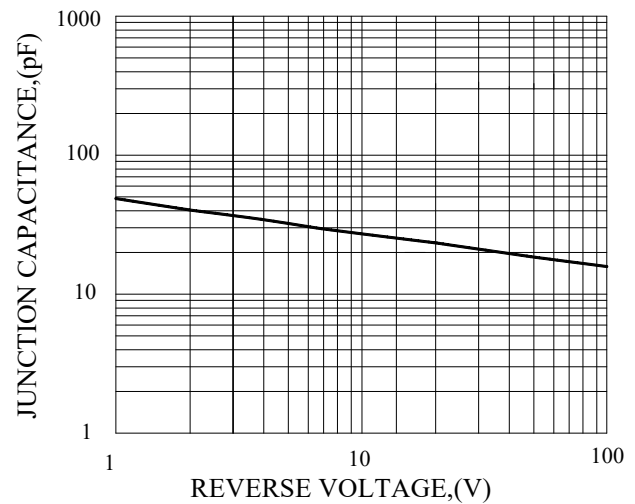
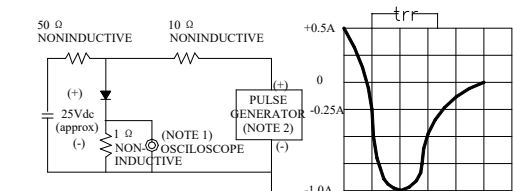


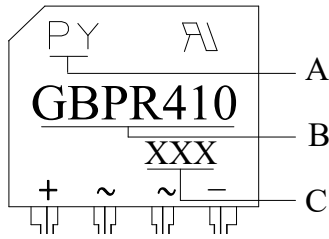
FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time=7ns max, Input Impedance= 1 megohm, 22pF.
2. Rise Time=10ns max, Source Impedance= 50 ohms.

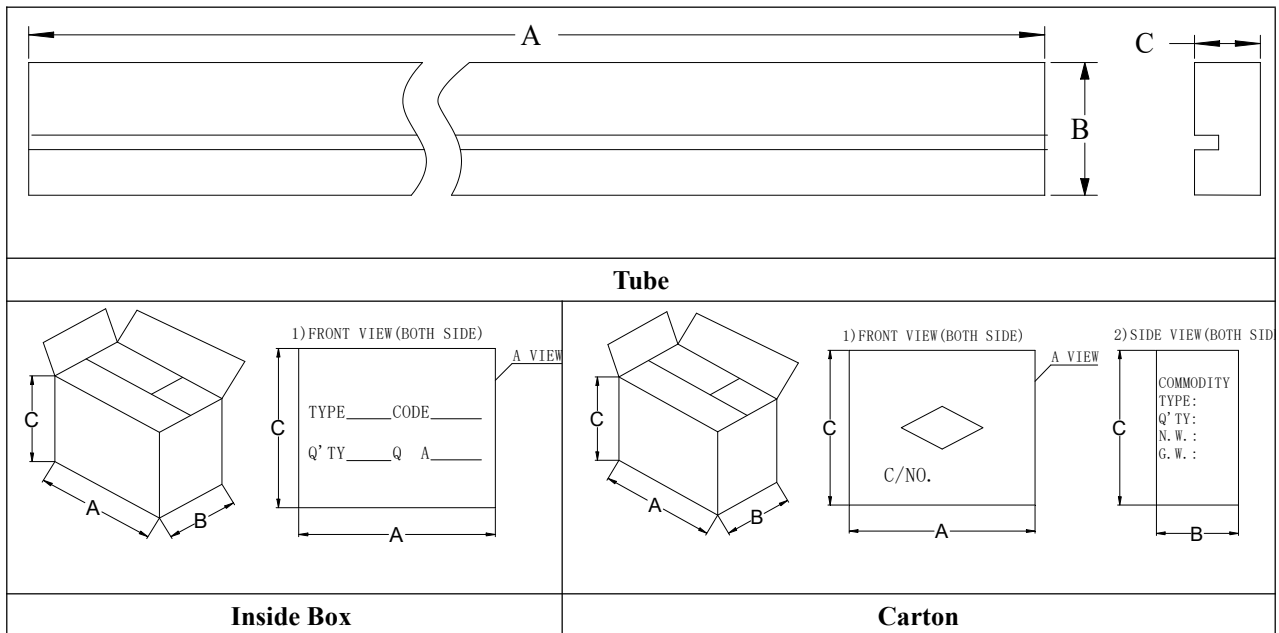
Marking packaging illustration

1、Marking



SYMBOL	Explanation
A	Trademark
B	Product Name
C	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