GBUR610

SINGLE PHASE6.0AMPS.GLASS PASSIVATED FAST RECOVERY BRIDGE RECTIFIERS

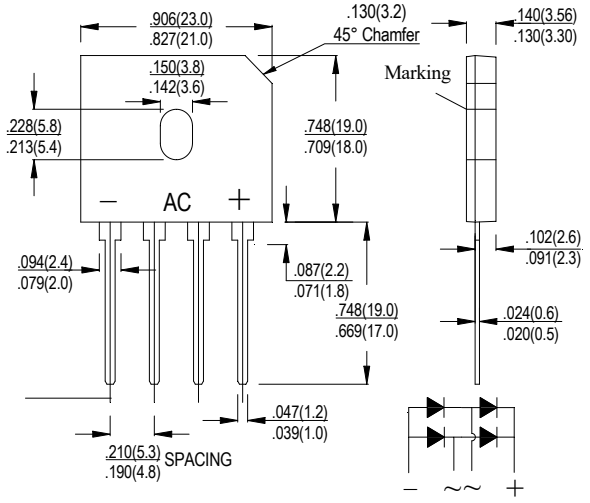
FEATURE

. Fast switching
. Glass passivated chip junctions
. High case dielectric stength
. Low Reverse Leakage Current
. High surge current capability
. Ideal for Printed Circuit Board Applications

MECHANICAL DATA

. Case : GBU 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

GBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz,resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	GBUR610	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°C(without heatsink)	$I_{F(AV)}$	6.0 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 Drop per element @ 6.0A DC	V_F	1.3	V
Maximum DC Reverse Current @T_J =25°C at rated DC blocking voltage @T_J =125°C	I_R	5.0 500.0	μA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	93.3	A^2Sec
Maximum Reverse Recovery Time (Note 1)	t_{rr}	500	nS
Typical Junction Capacitance (Note 2)	C_J	45	pF
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	2.5	°C/W
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Junction Temperature	T_J	-55 to +150	°C

Note:
1. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
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 (GBUR610)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

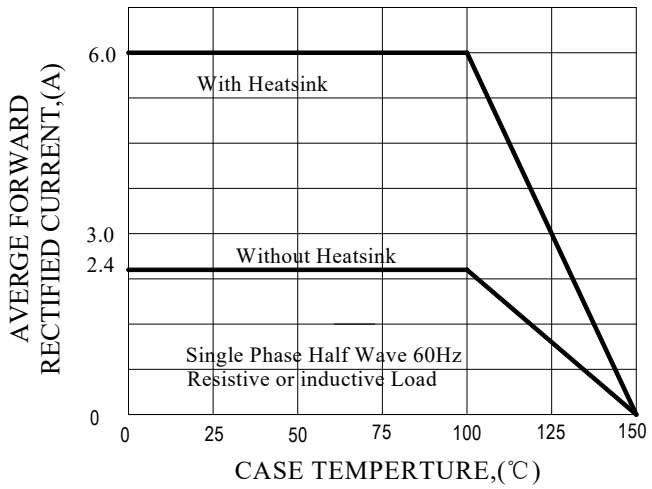


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

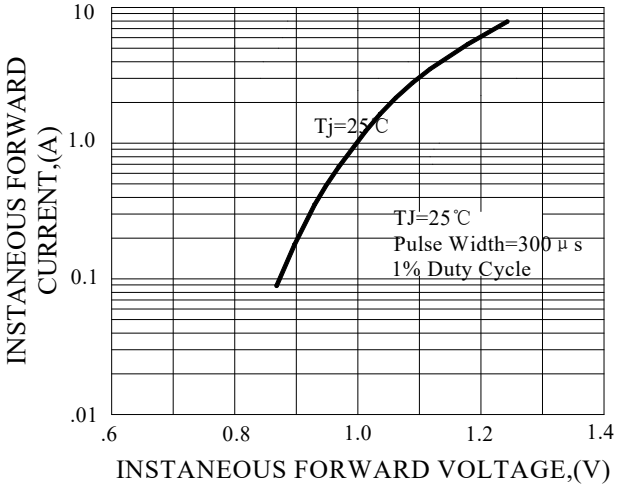


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

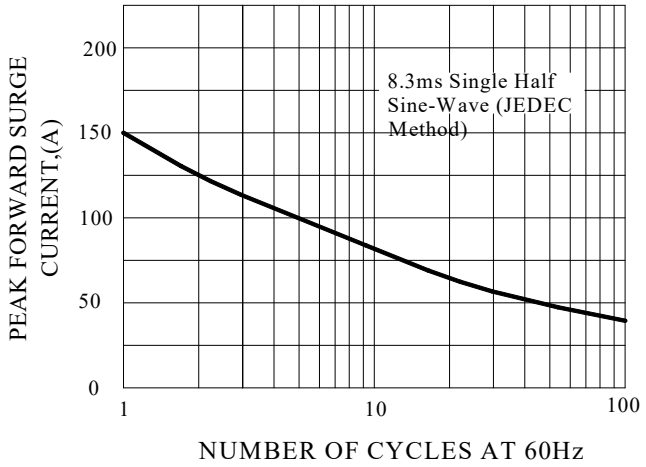


FIG.4-TYPIAL JUNCTION CAPAOTANCE

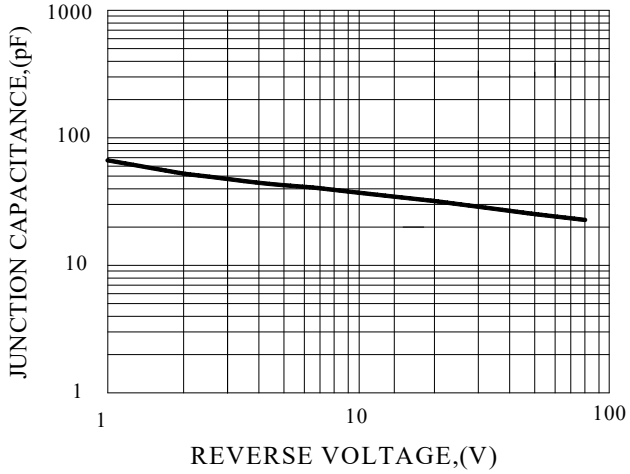


FIG.5-TYPICAL REVERSE CHARACTERISTICS

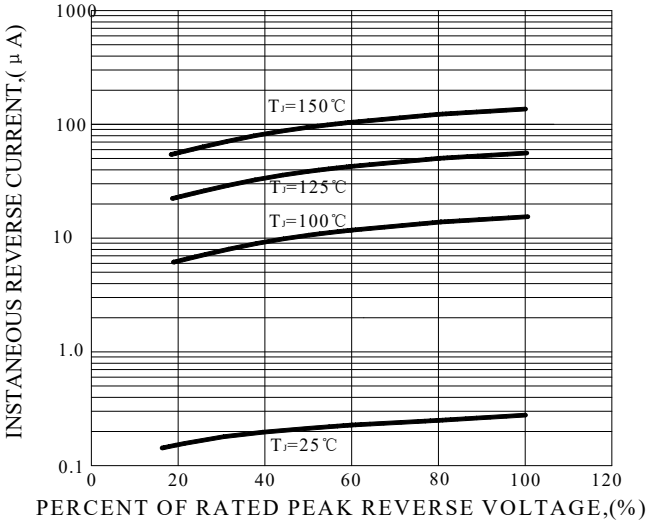
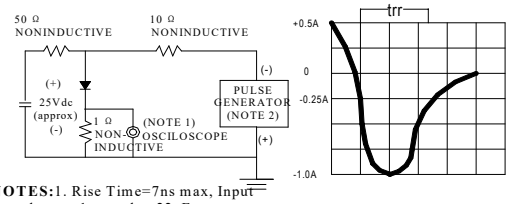


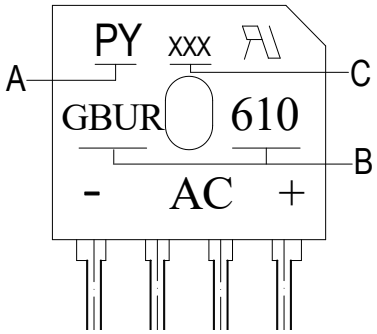
FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERSITIC



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

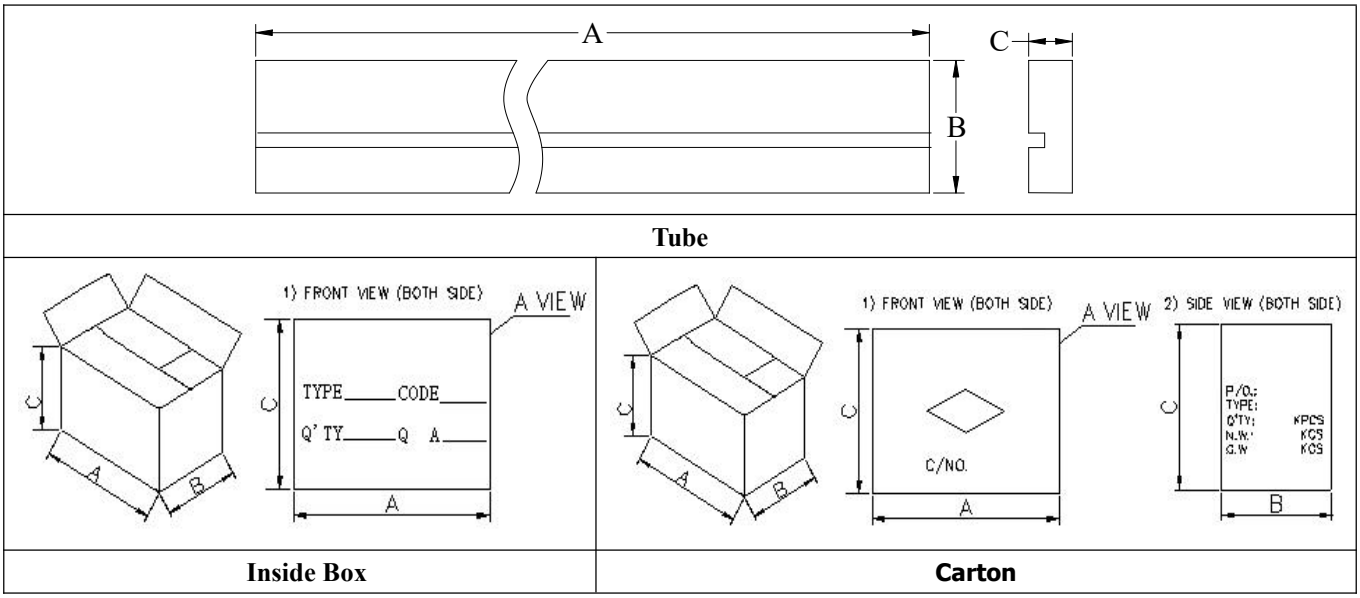
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Trademark
B	Product Name
C	Date Code

2、Packaging



Tube

Inside Box

Carton

OUTLINE	A（mm）	B（mm）	C（mm）
Tube	470±1	41±1	7.0±1
Inner box	485±3	130±3	130±3
Carton	500±5	285±5	150±5

COUNT	TUBE（PCS）	BOX（PCS）	CARTON (PCS)
GBU	20	1000	2000