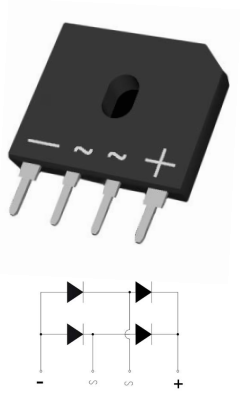
GBU610-S

13-Nov-2021

Glass Passivated Bridge Rectifiers

GBU610-S



Features

- Reverse Voltage - 1000 V
- Forward Current - 6 A
- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability

Applications

- Case: GBU
- Switching Power Supply
- Home Appliances, Office Devices
- Industrial Auto-equipments

Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	GBU610	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current	I_o	6.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150	A
I^2t rating for fusing (1ms< t < 8.3ms)	I^2t	93.3	A^2S
Maximum Forward Voltage at 3.0 A	V_F	1.1	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	I_R	5 500	μA
Typical Junction Capacitance（Note1）	C_j	50	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +175	°C
Typical thermal resistance (Note 2)	RthJA RthJL	10 3.0	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.
2. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on glass-epoxy substrate with 1oz/ft2_20x20 mm copper pad per pin with heatsink

RATINGS AND CHARACTERISTICS CURVES (TA = 25 ℃ unless otherwise noted)

Fig.1 Current Derating, Case

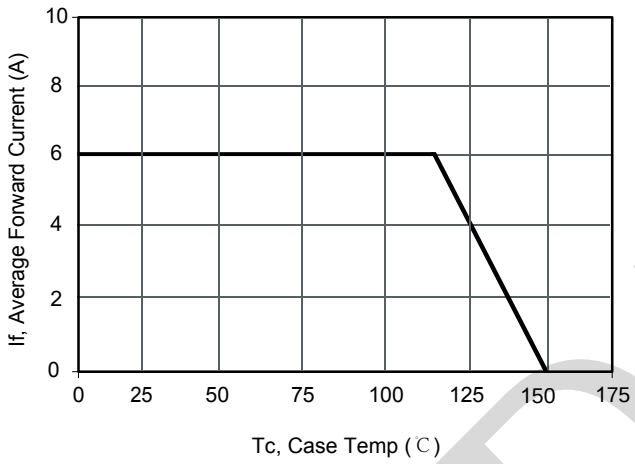


Fig.2 Maximum Non-Repetitive Peak Forward Surage Current

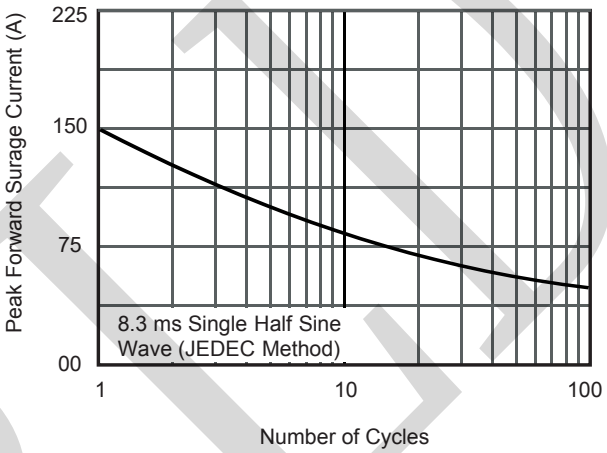


Fig.3 Typical Forward Voltage

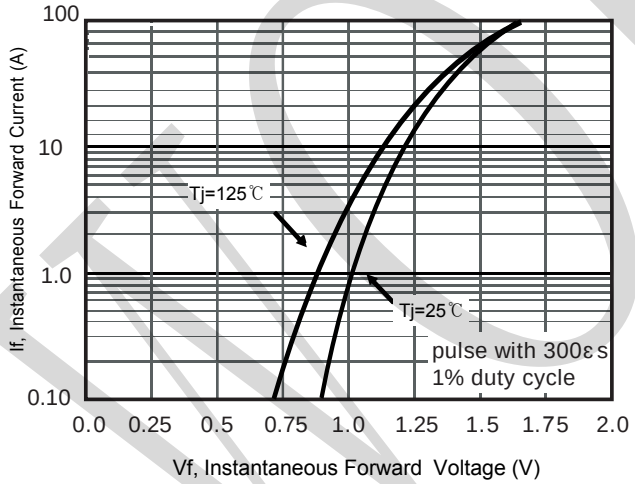
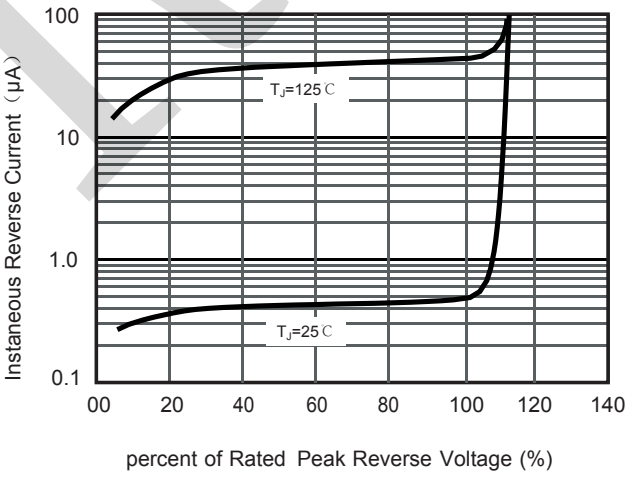
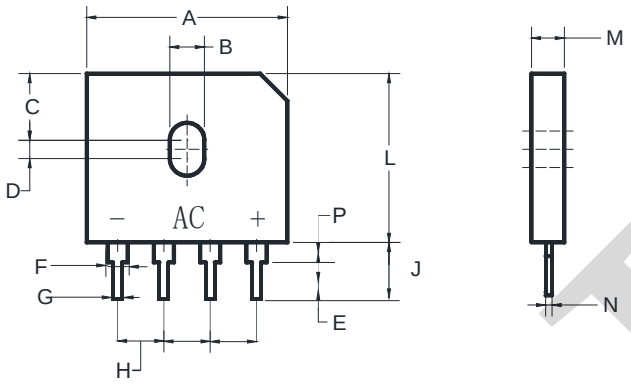


Fig.4 Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

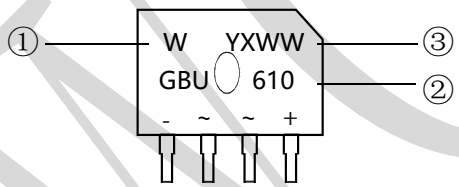
GBU



GBU		
Dim	Min	Max
A	21.70	22.50
B	3.40	4.10
C	7.40	8.00
D	1.65	2.26
E	3.50	4.20
F	2.05	2.40
G	1.02	1.37
H	4.83	5.43
J	6.20	6.50
L	18.3	18.9
M	3.30	3.66
N	0.46	0.66
P	2.20	2.40

Dimensions in millimeters

Marking Information



①W : Company's trademark
②Product model : GBU610
③PDC information E

Y X WW

WW:Week code(01 to 53)
X:Internal identification code
Y:Year code(ex:0=2020)