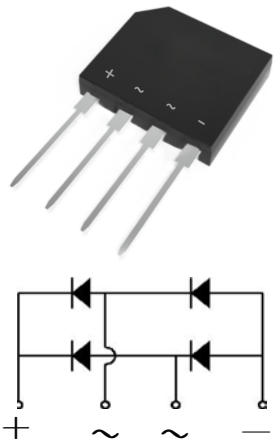
GBP610

13-NOV-2021

Glass Passivated Bridge Rectifiers



Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance: 260℃/10sec

Applications

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

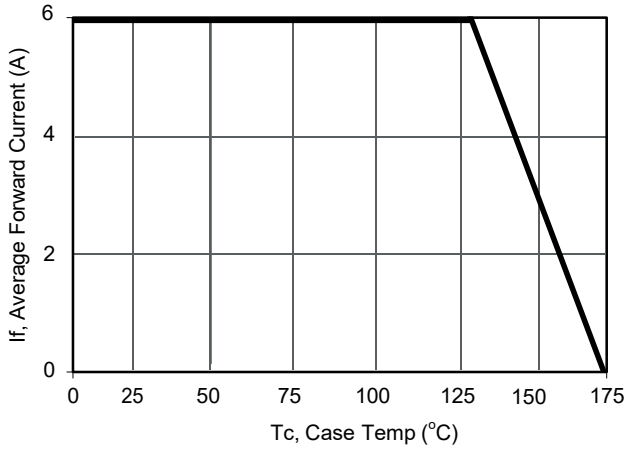
Maximum Ratings and Electrical characteristics

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 %.

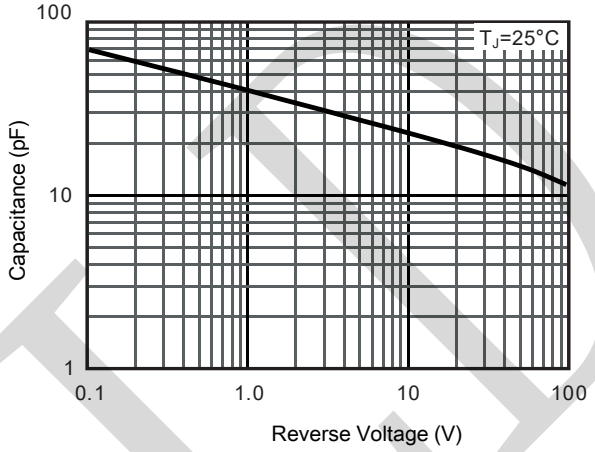
Parameter	Symbols	GBP610	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current	I_o	6.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	160	A
I^2t rating for fusing (1ms< t < 8.3ms)	I^2t	106	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	25	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C
Typical thermal resistance (Note 2)	RthJA RthJC	30 3.5	°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

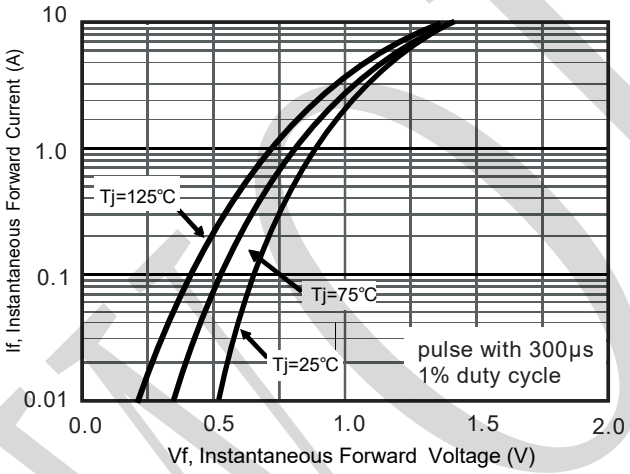
RATINGS AND CHARACTERISTICS CURVES (TA = 25 ˚C unless otherwise noted)



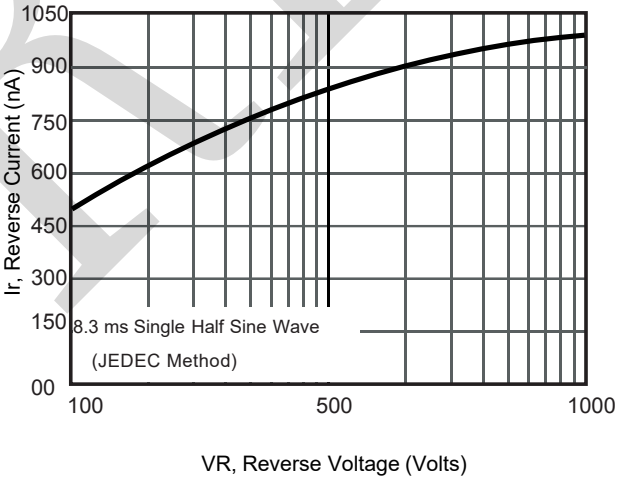
Current Derating, Case



Typical Junction Capacitance

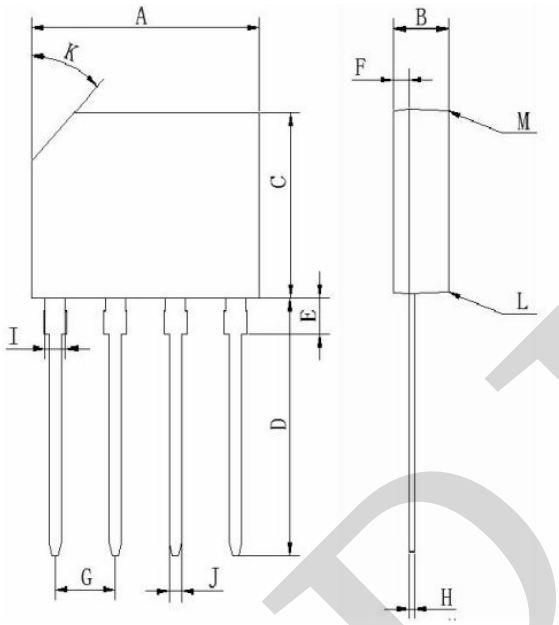


Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS



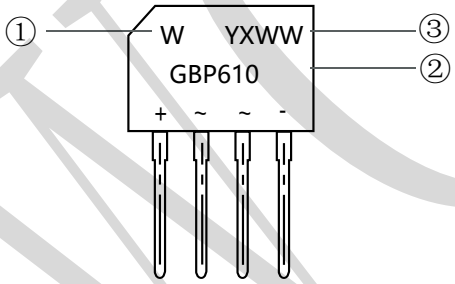
GBP		
Dim	Min	Max
A	14.25	14.75
B	3.35	3.65
C	10.2	10.6
D	14.3	14.8
E	1.8	2.2
F	0.8	1.1
G	3.56	4.06
H	0.3	0.55
I	1.22	1.42
J	0.76	0.86

K: 27X45°(Typ)
L-M: 3°

Dimensions in millimeters

Note: Short feet

Marking Information



①W : Company's trademark
②Product model : GBP610
③PDC information：

Y X WW

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