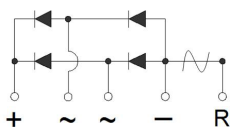
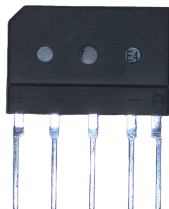


## Glass Passivated Bridge Rectifiers

### GBJ2008R12



### Features

- Compliant with RoHS Provisions
- Low forward voltage, high forward current
- High forward surge current capability
- High heat-conducting performance
- Thermal welding performance: 260 °C/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	GBJ2008R12	Units
Maximum Repetitive Peak Reverse Voltage		VRRM	800	V
Average Rectified Output Current		Io	20 ①	A
			4.2 ②	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		IFSM	300	A
I <sup>2</sup> t Rating for Fusing ( 1ms< t < 8.3ms)		I <sup>2</sup> t	373	A <sup>2</sup> S
Forward Voltage per Diode, IF = 10A		VF	1.05	V
Maximum DC Reverse Current	TA=25 °C	IR	10	μA
	TA=125 °C		500	
Temperature Coefficient of Sampling Resistance		TCR	±40	ppm/°C
Operating and Storage Temperature Range		Tj, Tstg	-55 ~ +150	°C
Junction-to-case Thermal Resistance ③		RθJC	1.5	°C/W
Sampling Resistance (Negative "-" to Sampling "R")	standard values	Rs	12	mΩ
	error values		±5%	%

Note: ① The product is installed on the PCB board with the specified size of the heat sink

② The product is mounted directly on the PCB board without heat sink

③ The recommended size of the heat sink is 12.4 x 15.2 x 7.6cm aluminum heat sink

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

Fig.1 Current Derating, Case

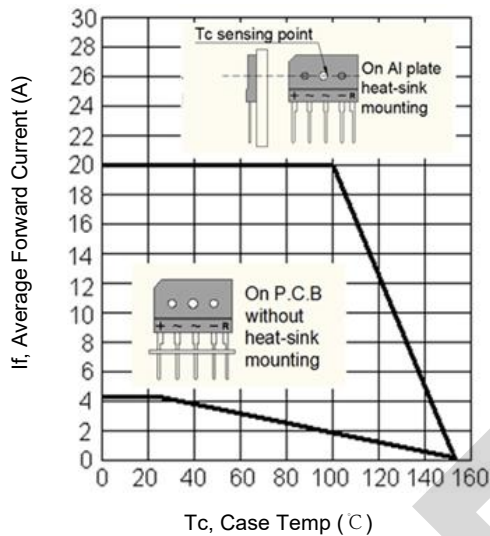


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

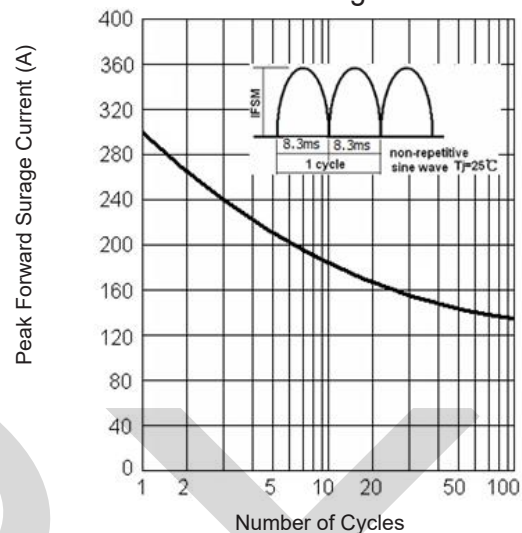


Fig.3 Typical Forward Voltage

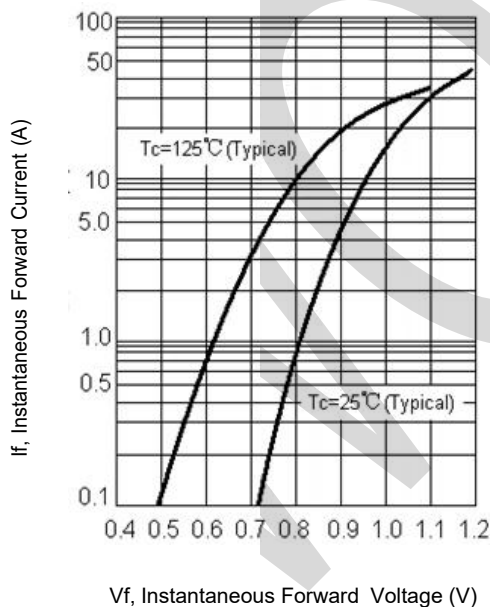
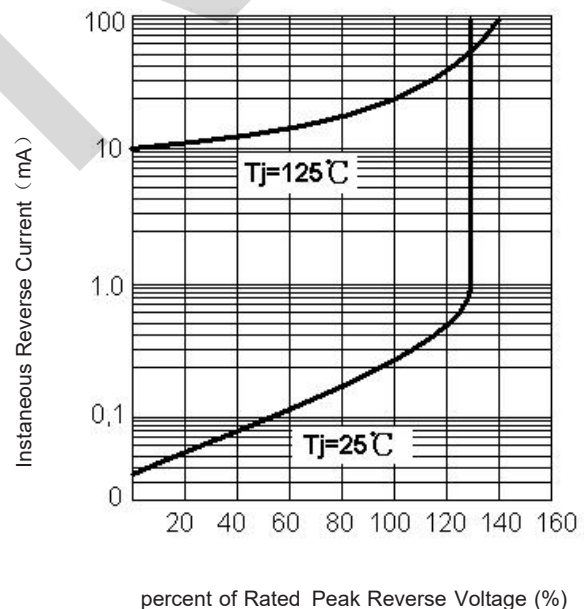
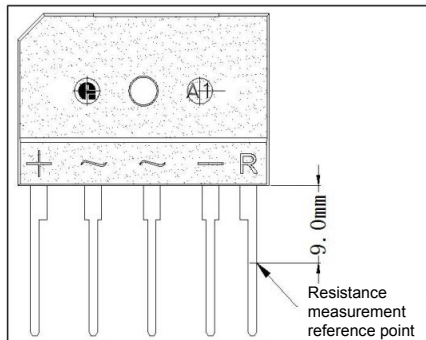


Fig.4 Typical Reverse Characteristics



## RESISTANCE MEASUREMENT DESCRIPTION



Illustrate:

1. The product resistance value measurement reference point is 9mm away from the product body;
2. The resistance of a single pin of the product is 0.025mΩ/mm; (reference value)

Translation:

After the adjustment bridge product is installed on the PCB, the actual installation point of the adjustment bridge

The product body is 12mm, and the nominal resistance of the product is calculated as follows: The distance from the reference point for measuring resistance value is:  $12-9=3\text{mm}$

The added resistance of a single pin is:

$$3 \times 0.025 = 0.075\text{m}\Omega$$

The overall resistance increases to:

$$0.075 \times 2 = 0.15\text{m}\Omega \text{ (because it is the bottom pin)}$$

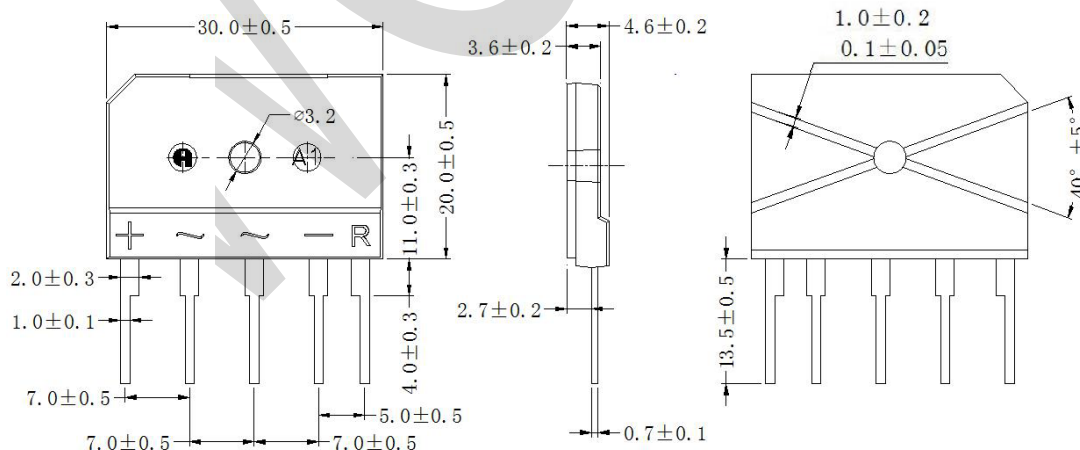
$$\text{The final overall nominal resistance is: } 20 + 0.15 = 20.15\text{m}\Omega$$

## PRECAUTIONS FOR USE

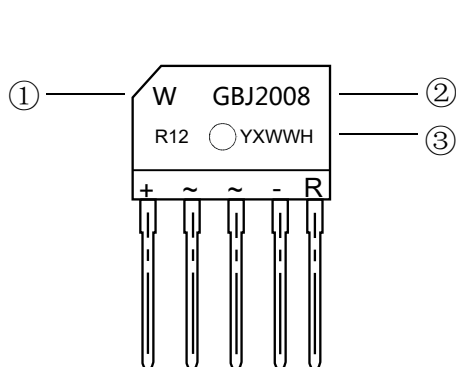
\*In order to ensure the accuracy of the sampling resistance value, it is forbidden to heat the product pin at 260℃ for more than 10 seconds (wave soldering), and it is forbidden to heat the product pin at 400℃ for more than 3 seconds (manual welding).

## PACKAGE OUTLINE DIMENSIONS

Note: unit In(mm)

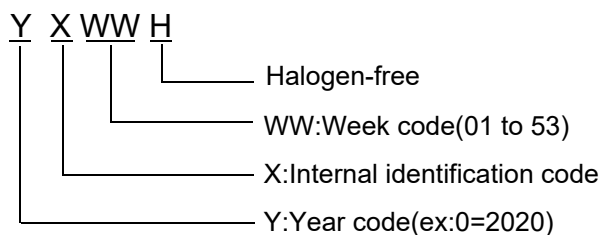


## Marking Information



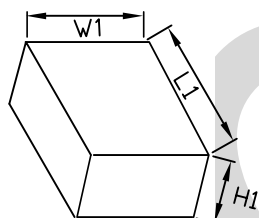
- ①W : Company's trademark
- ②Product model : GBJ2008R12

### ③PDC information :

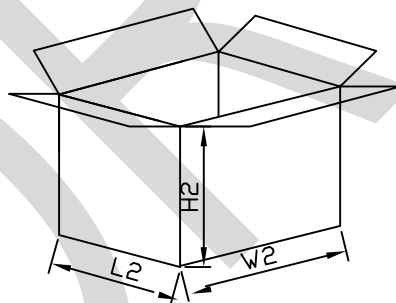


## Packaging Information

### 1. Inside Box



### 2. Outside Box



## Packaging Information

NO	UNIT	Inside Box			Outside Box		
Size	mm	L1	W1	H1	L2	W2	H2
		301	134	46	325	290	212
QTY	PCS	250PCS/carton			5,000PCS/carton,20boxes in total		
Note	Tolerance    ≤20mm,±3mm;    21-100mm,±5mm;    101-500mm,±10mm						