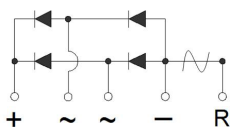
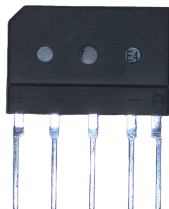


Glass Passivated Bridge Rectifiers

GBJ1508R20



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	GBJ1508R20	Units
Maximum Repetitive Peak Reverse Voltage		VRRM	800	V
Average Rectified Output Current		Io	15 ①	A
			3.5 ②	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		IFSM	250	A
I ² t Rating for Fusing (1ms< t < 8.3ms)		I ² t	259	A ² S
Forward Voltage per Diode,IF = 7.5A		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		ReJC	1.5	°C/W
Sampling Resistance (Negative "-" to Sampling "R")	standard values	Rs	20	mΩ
	error values		±5%	%

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

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

③The 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

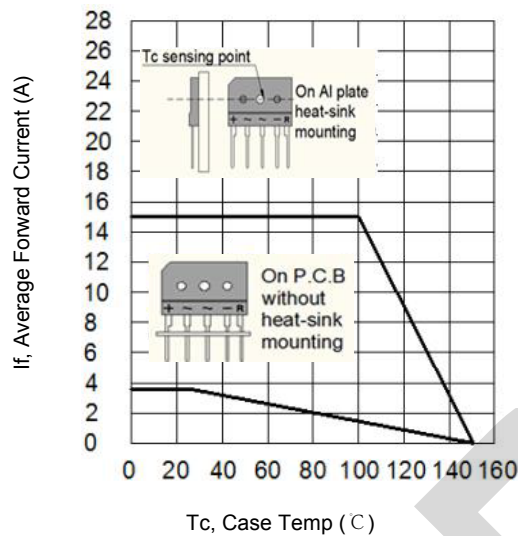


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

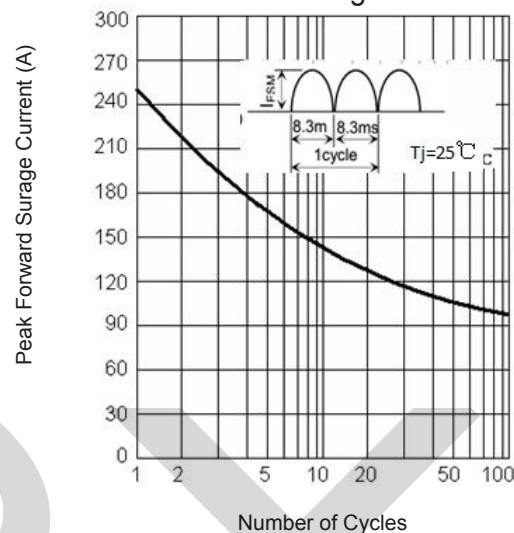


Fig.3 Typical Forward Voltage

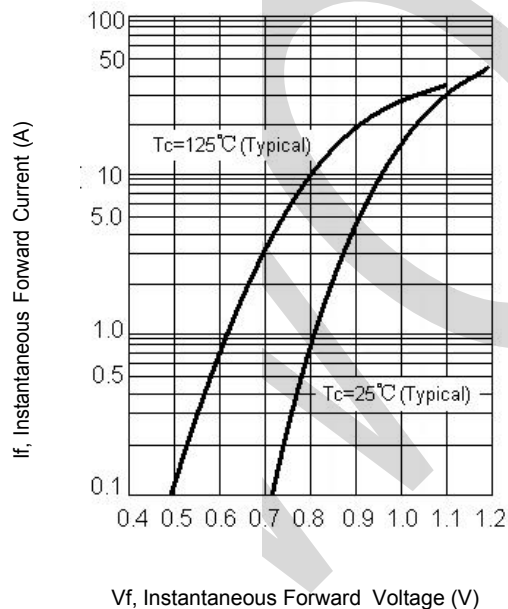
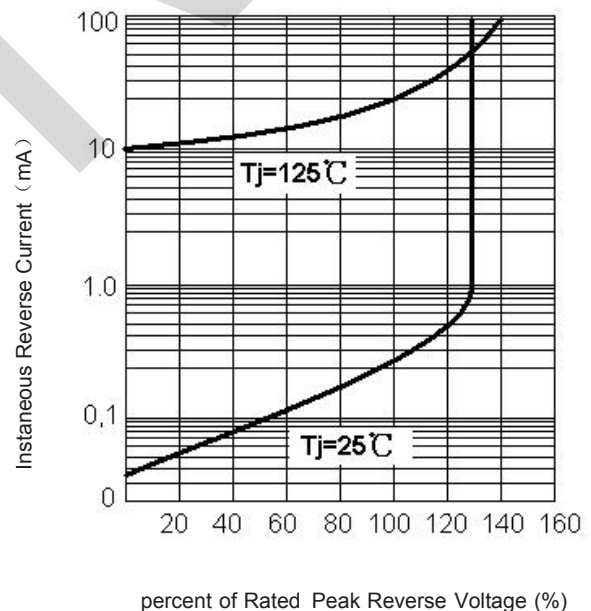
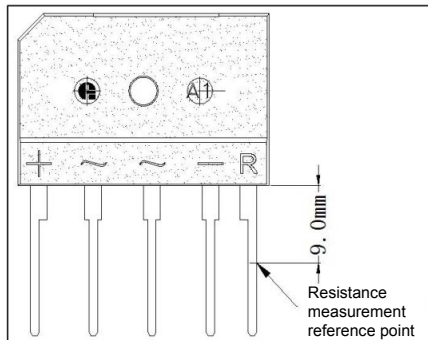


Fig.4 Typical Reverse Characteristics



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:

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

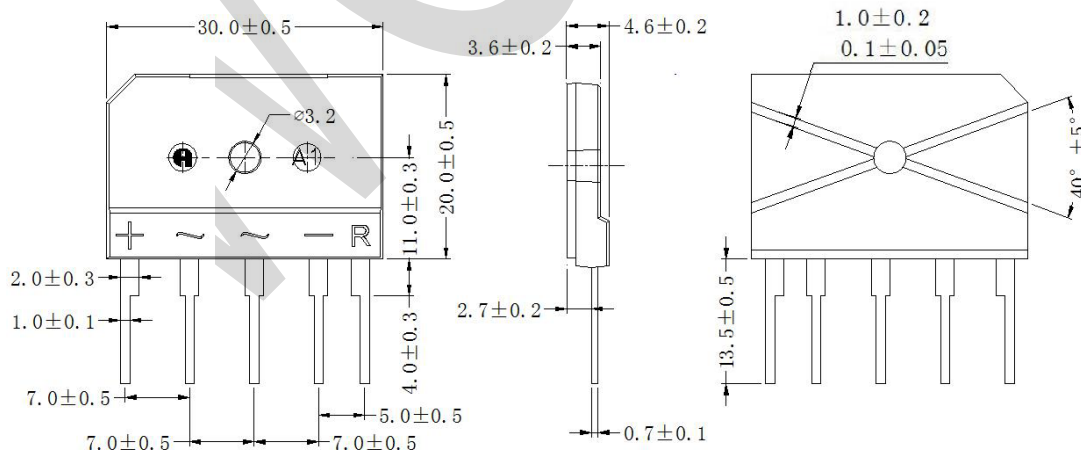
$$\text{The final overall nominal resistance is: } 20 + 0.15 = 20.15\text{m}\Omega$$

PRECAUTIONS FOR USE

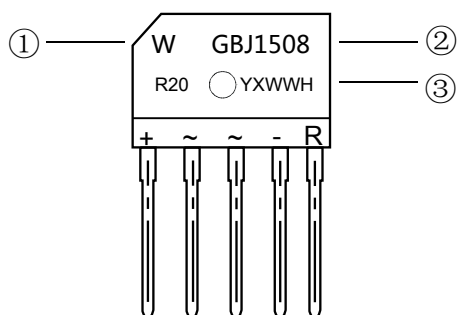
*In order to ensure the accuracy of the sampling resistance value, it is forbidden to heat the product pin at 260 °C for more than 10 seconds (wave soldering), and it is forbidden to heat the product pin at 400 °C for more than 3 seconds (manual welding).

PACKAGE OUTLINE DIMENSIONS

Note: unit In(mm)



Marking Information



①W : Company's trademark

②Product model : GBJ1508R20

③PDC information :

Y X WW H

— Halogen-free

— WW:Week code(01 to 53)

— X:Internal identification code

— Y:Year code(ex:0=2020)