

# SHINDENGEN

## General Purpose Rectifiers

Square In-line Package

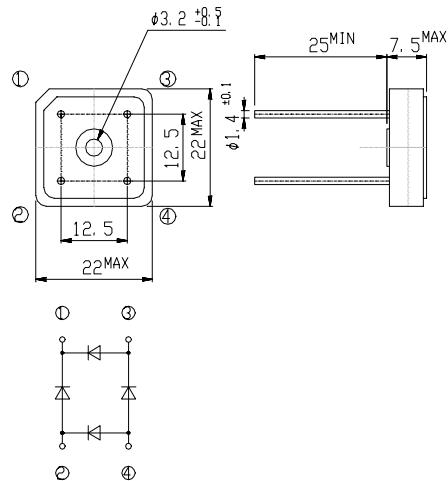
**S10VB20**

**200V 10A**

### OUTLINE DIMENSIONS

Case : S10VB

Unit : mm



### RATINGS

#### ● Absolute Maximum Ratings

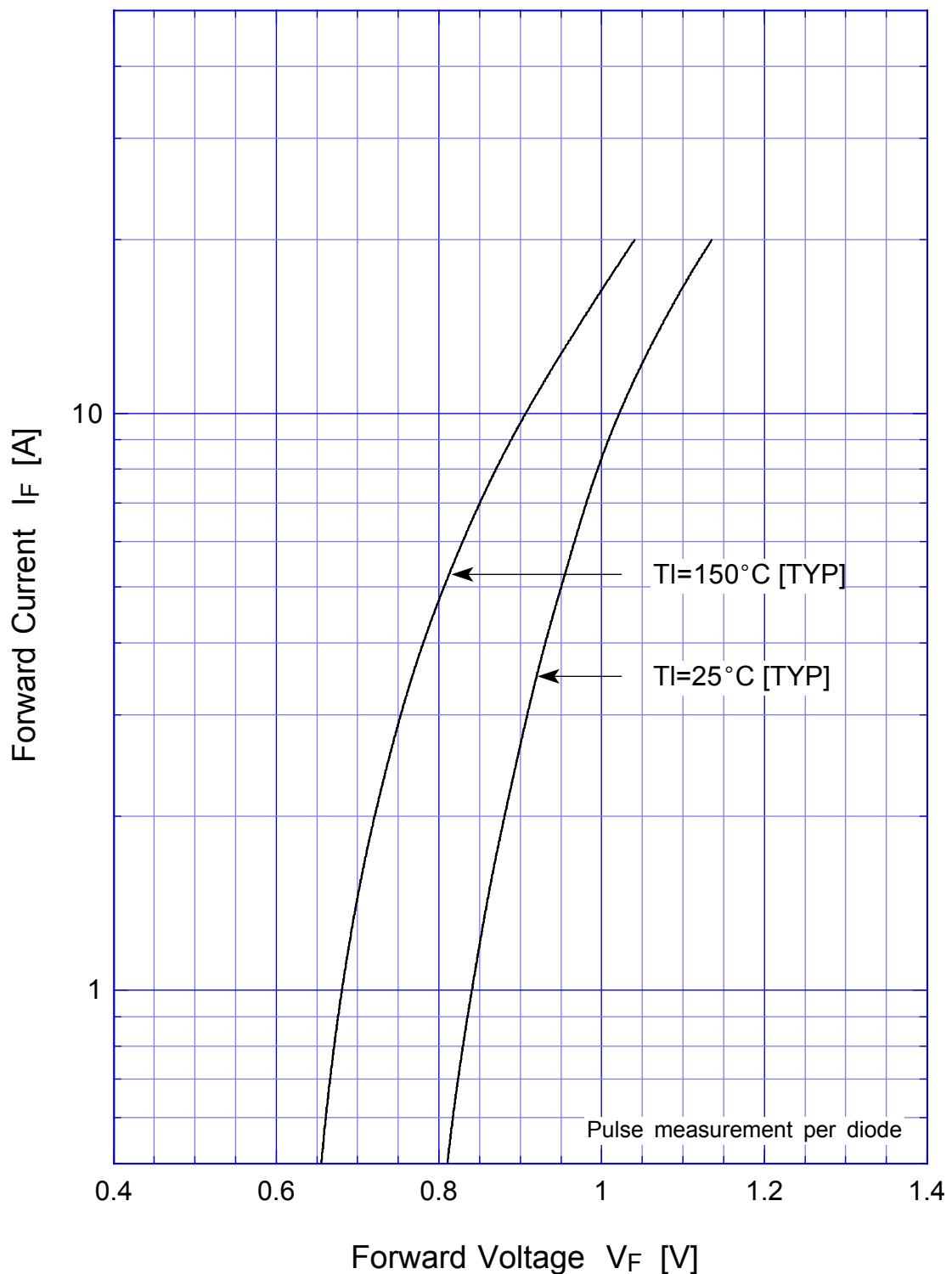
| Item                              | Symbol           | Conditions   | Ratings | Unit             |
|-----------------------------------|------------------|--|---------|------------------|
| Storage Temperature               | T <sub>stg</sub> |  | -40~150 | °C               |
| Operating Junction Temperature    | T <sub>j</sub>   |  | 150     | °C               |
| Maximum Reverse Voltage           | V <sub>RM</sub>  |  | 200     | V                |
| Average Rectified Forward Current | I <sub>O</sub>   | 50Hz sine wave, R-load, T <sub>a</sub> =40°C With heatsink, $\theta_{fa}=2.4^{\circ}\text{C}/\text{W}$ | 10      | A                |
|                                   |                  | 50Hz sine wave, R-load, T <sub>a</sub> =40°C Without heatsink  | 3.7     |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C                                 | 200     | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms ≤ t < 10ms T <sub>j</sub> =25°C  | 110     | A <sup>2</sup> s |
| Dielectric Strength               | V <sub>dis</sub> | Terminals to case, AC 1 minute   | 2       | kV               |
| Mounting Torque                   | T <sub>OR</sub>  | (Recommended torque : 0.5N·m)  | 0.8     | N·m              |

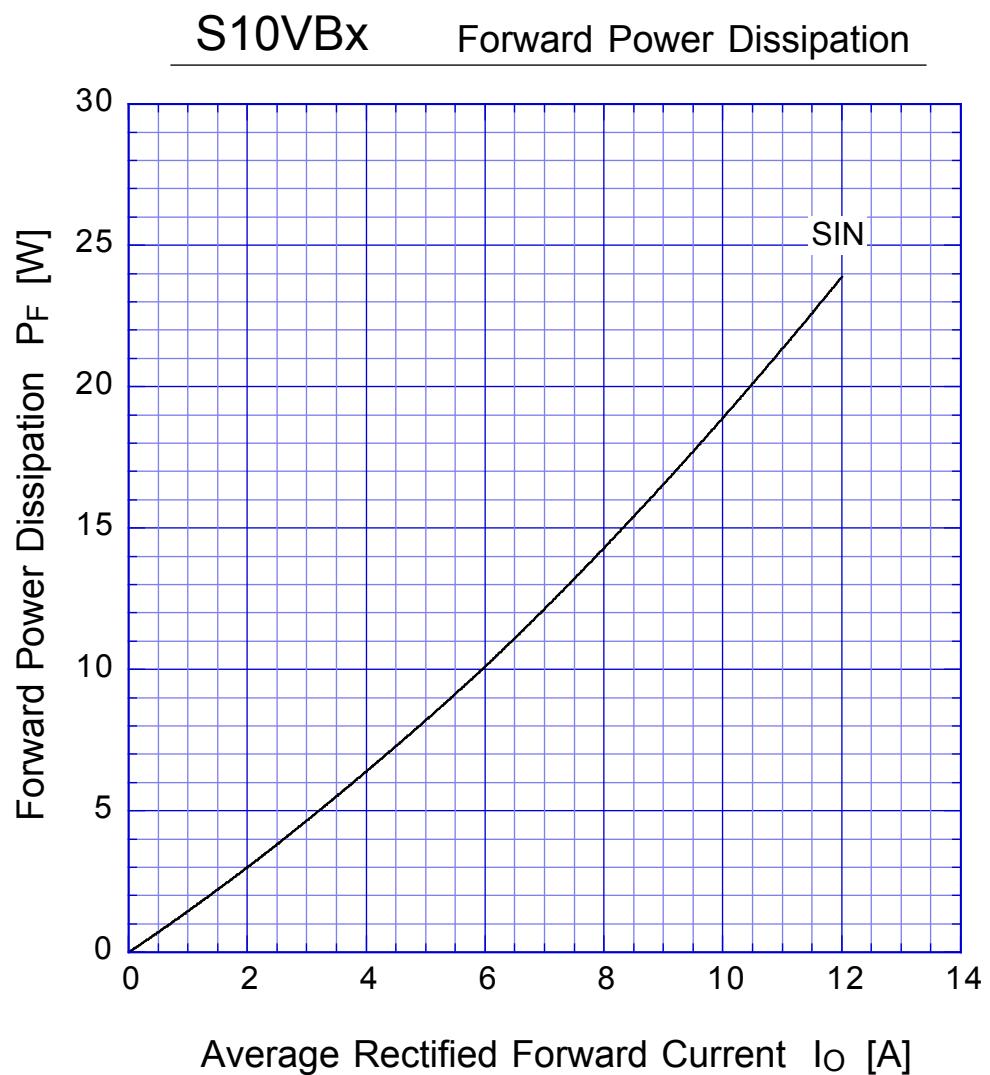
#### ● Electrical Characteristics (T<sub>j</sub>=25°C)

| Item               | Symbol         | Conditions   | Ratings  | Unit                        |
|--------------------|----------------|--|----------|-----------------------------|
| Forward Voltage    | V <sub>F</sub> | I <sub>F</sub> =5A, Pulse measurement, Rating of per diode               | Max.1.05 | V                           |
| Reverse Current    | I <sub>R</sub> | V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode | Max.10   | $\mu\text{A}$               |
| Thermal Resistance | $\theta_{jl}$  | junction to lead   | Max.2.8  | $^{\circ}\text{C}/\text{W}$ |

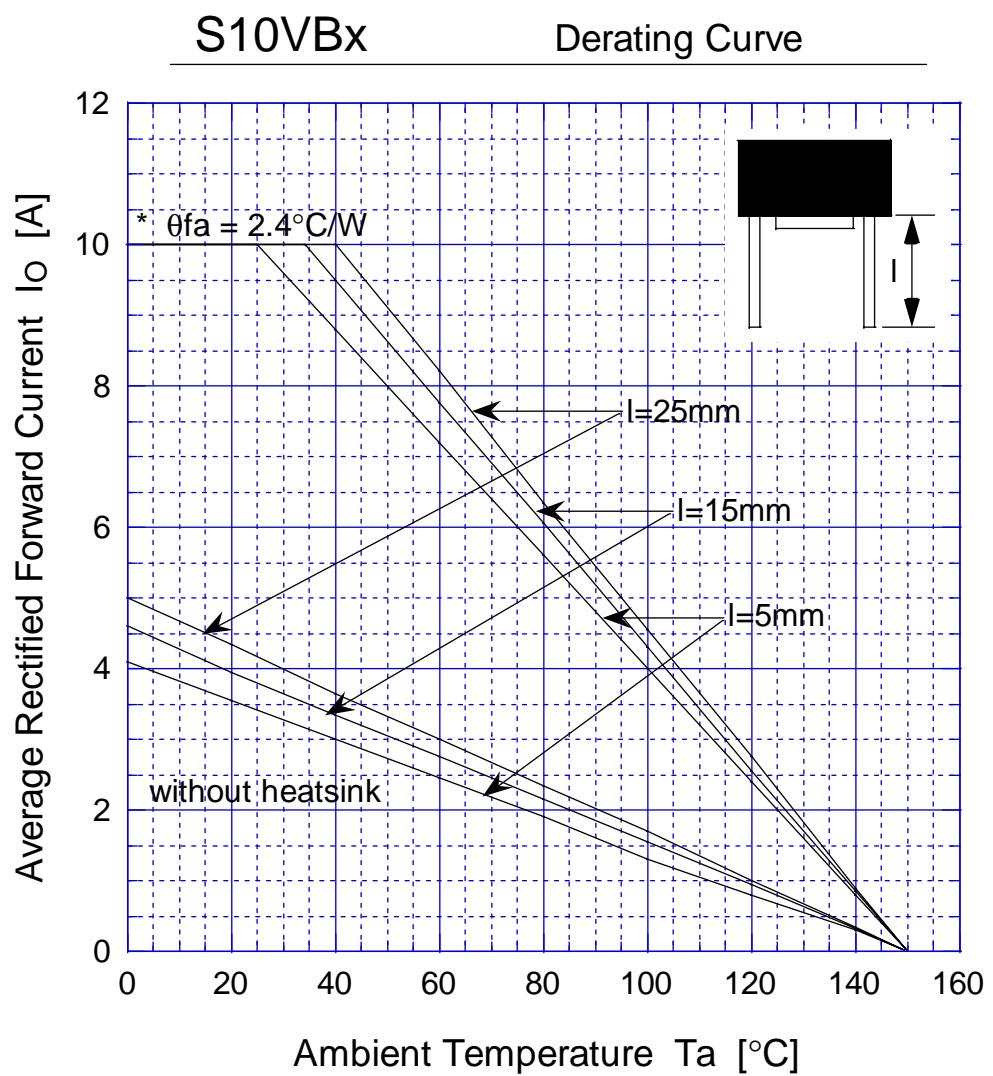
# S10VBx

## Forward Voltage





$T_j = 150^\circ\text{C}$   
Sine wave



Sine wave  
 R-load  
 Free in air  
 \* with thermal compound, TOR=0.5N·m

# S10VBx

## Peak Surge Forward Capability

