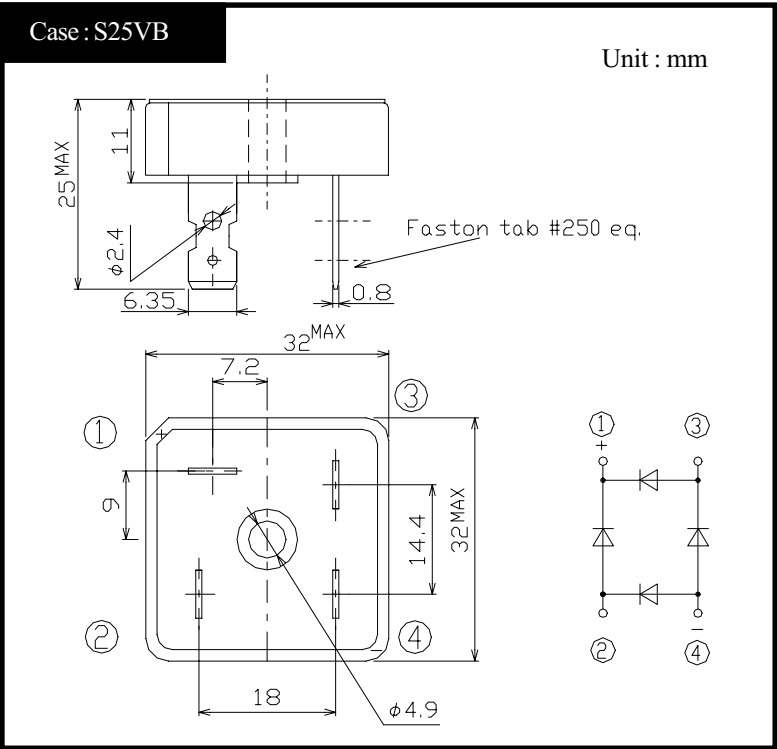


S25VB20

200V 25A

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings

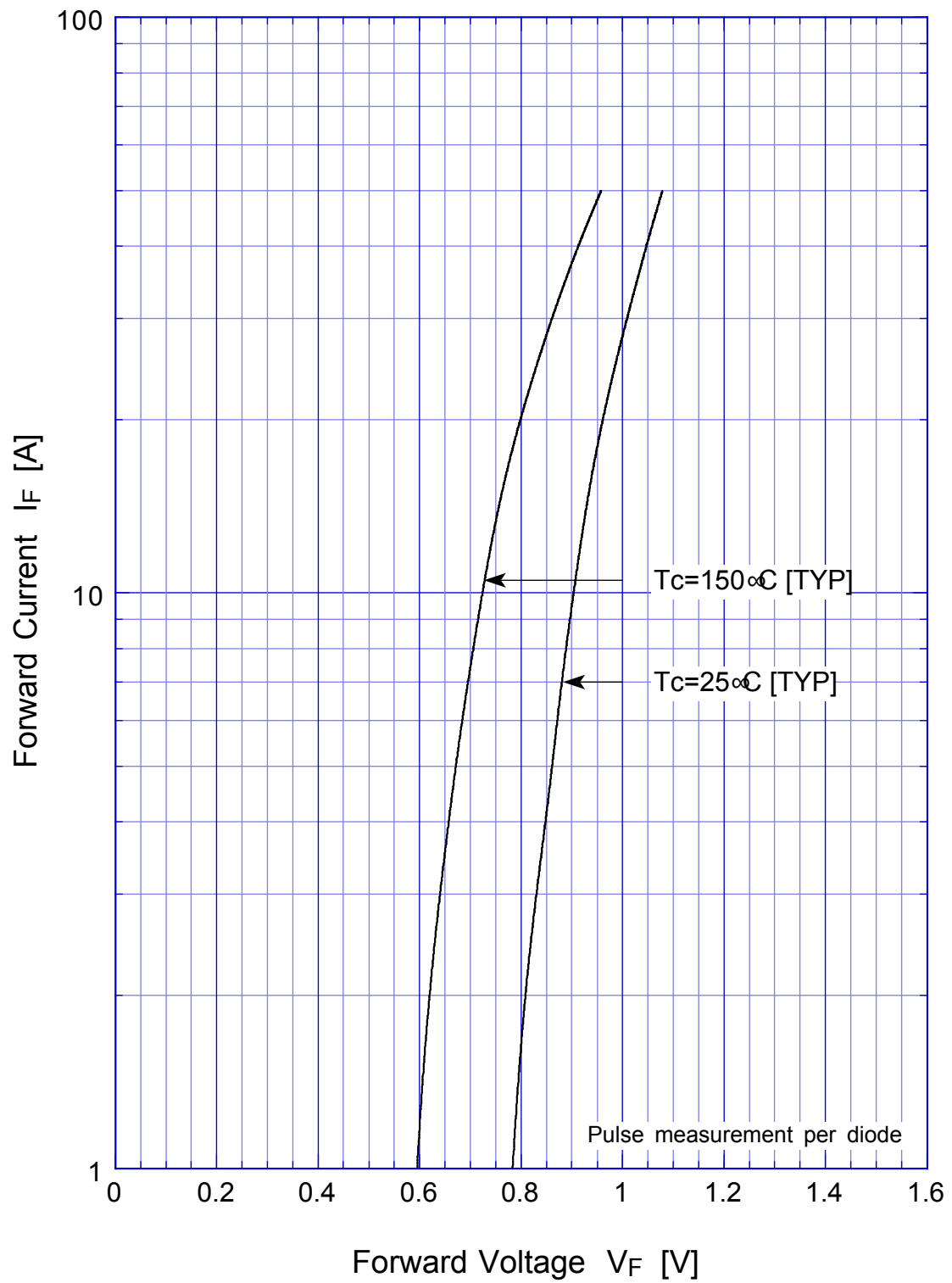
| Item                              | Symbol           | Conditions                                                             | Ratings | Unit             |
|-----------------------------------|------------------|------------------------------------------------------------------------|---------|------------------|
| 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 With heatsink, T <sub>c</sub> =85°C             | 25      | A                |
|                                   |                  | 50Hz sine wave, R-load Without heatsink, T <sub>a</sub> =40°C          | 6       |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C | 400     | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms≤t<10ms T <sub>j</sub> =25°C                                        | 800     | A <sup>2</sup> s |
| Dielectric Strength               | V <sub>dis</sub> | Terminals to case, AC 1 minute                                         | 2       | kV               |
| Mounting Torque                   | TOR              | (Recommended torque : 1N·m)                                            | 2       | N·m              |

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

| Item               | Symbol          | Conditions                                                               | Ratings  | Unit |
|--------------------|-----------------|--------------------------------------------------------------------------|----------|------|
| Forward Voltage    | V <sub>F</sub>  | I <sub>F</sub> =12.5A, 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   | μA   |
| Thermal Resistance | θ <sub>jc</sub> | junction to case                                                         | Max.1.5  | °C/W |

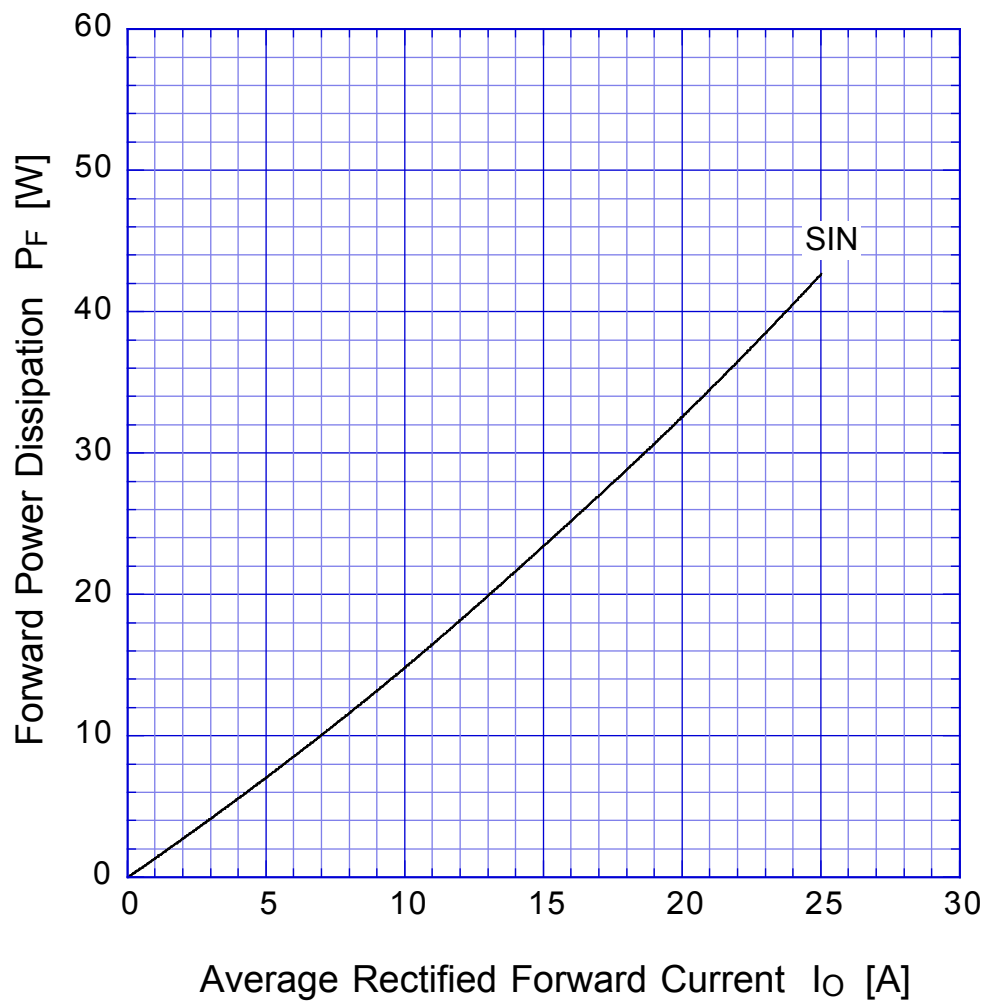
S25VBx

Forward Voltage



S25VBx

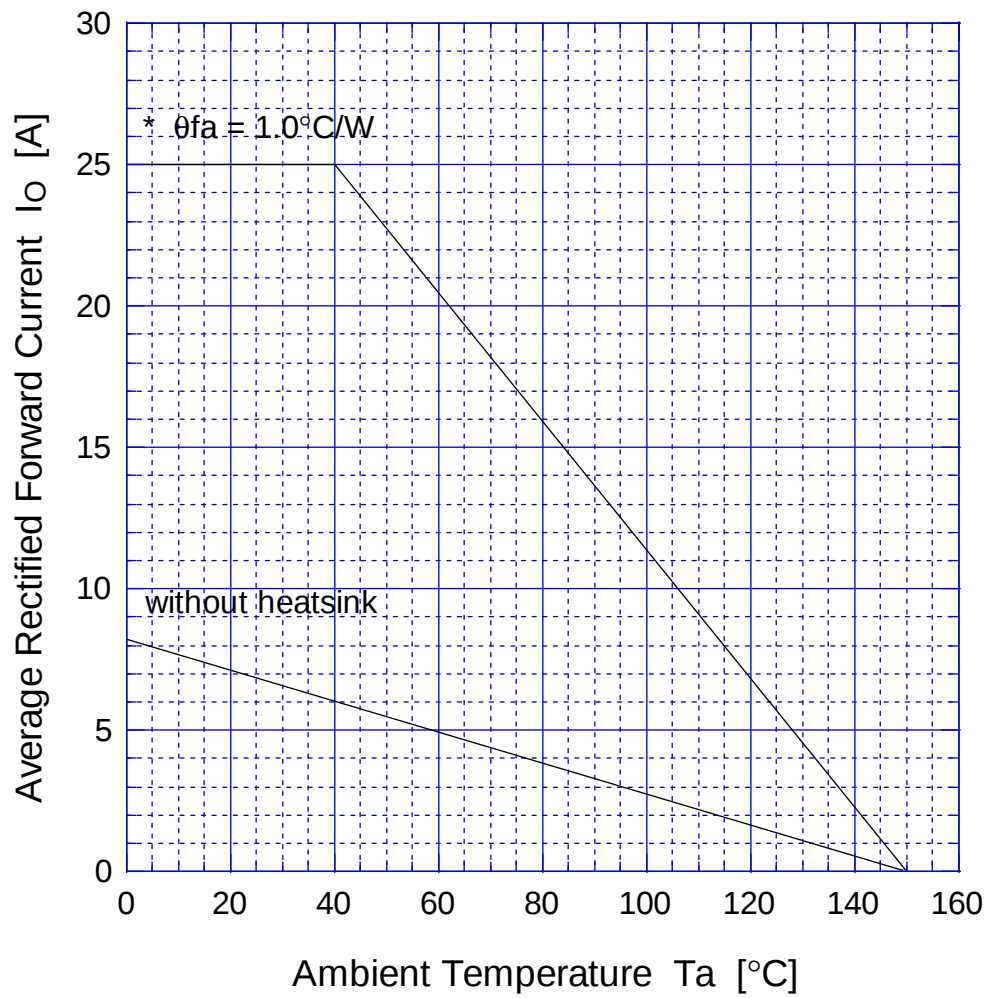
Forward Power Dissipation



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

## S25VBx

## Derating Curve



Sine wave

R-load

Free in air

\* with thermal compound, TOR=1N-m

## S25VBx

## Peak Surge Forward Capability

