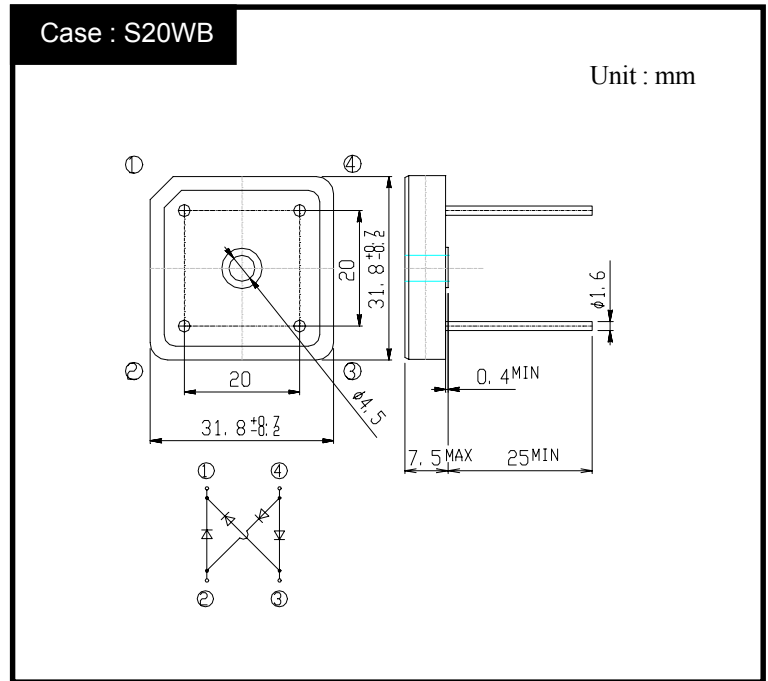


# S20WB20

## 200V 20A

### OUTLINE DIMENSIONS



### RATINGS

#### ● Absolute Maximum Ratings

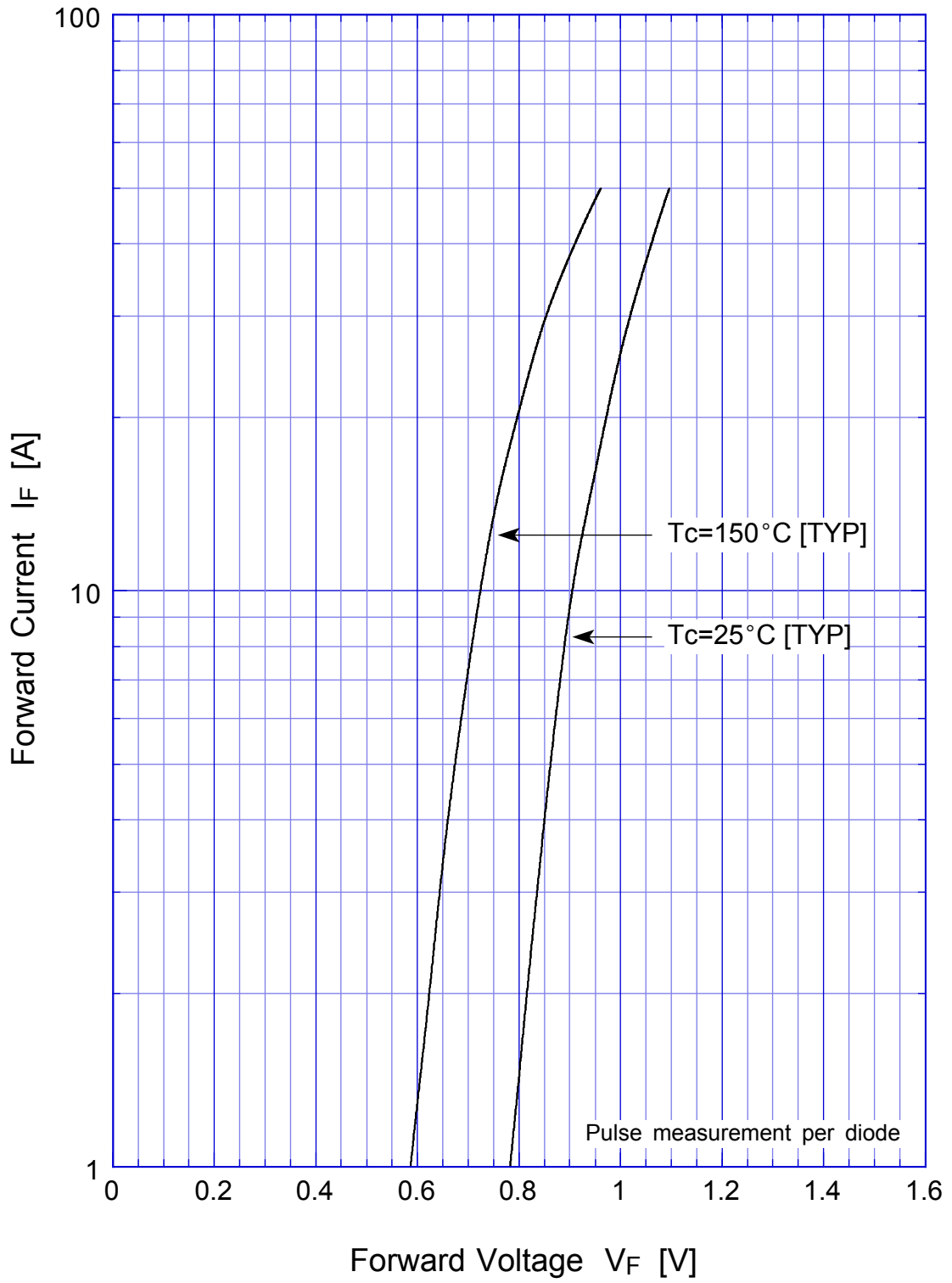
| Item                              | Symbol           | Conditions   | Ratings | Unit             |
|-----------------------------------|------------------|--|---------|------------------|
| Storage Temperature               | T <sub>stg</sub> |  | -40~150 | °C               |
| Operating Junction Temperature    | 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> =76°C              | 20      | A                |
|                                   |                  | 50Hz sine wave, R-load Without heatsink T <sub>a</sub> =25°C           | 4.5     |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C | 500     | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms ≤ t < 10ms T <sub>c</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)

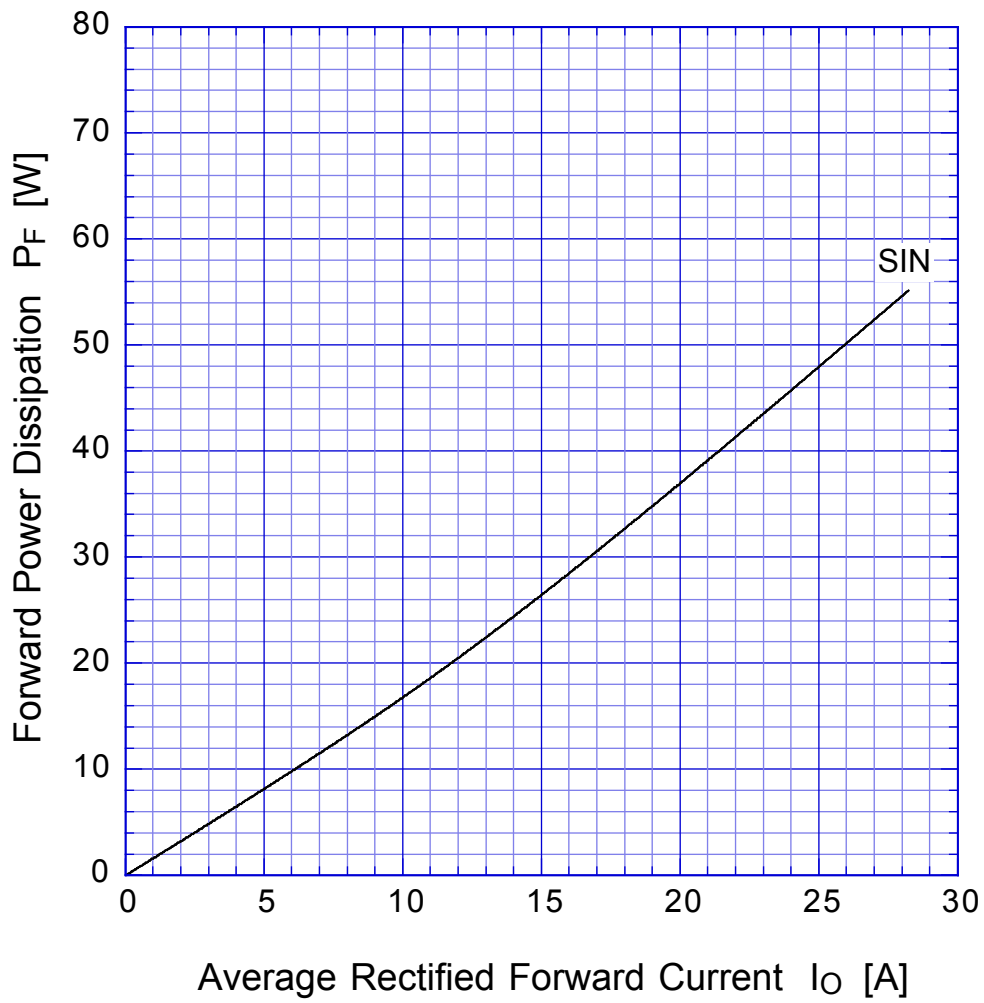
| Item               | Symbol          | Conditions   | Ratings  | Unit |
|--------------------|-----------------|--|----------|------|
| Forward Voltage    | V <sub>F</sub>  | I <sub>F</sub> =10A, Pulse measurement, Rating of per diode              | Max.1.05 | V    |
| Reverse Current    | I <sub>R</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.2    | °C/W |
|                    | θ <sub>jl</sub> | junction to lead   | Max.2    |      |
|                    | θ <sub>ja</sub> | junction to ambient  | Max.17   |      |

S20WBx

Forward Voltage



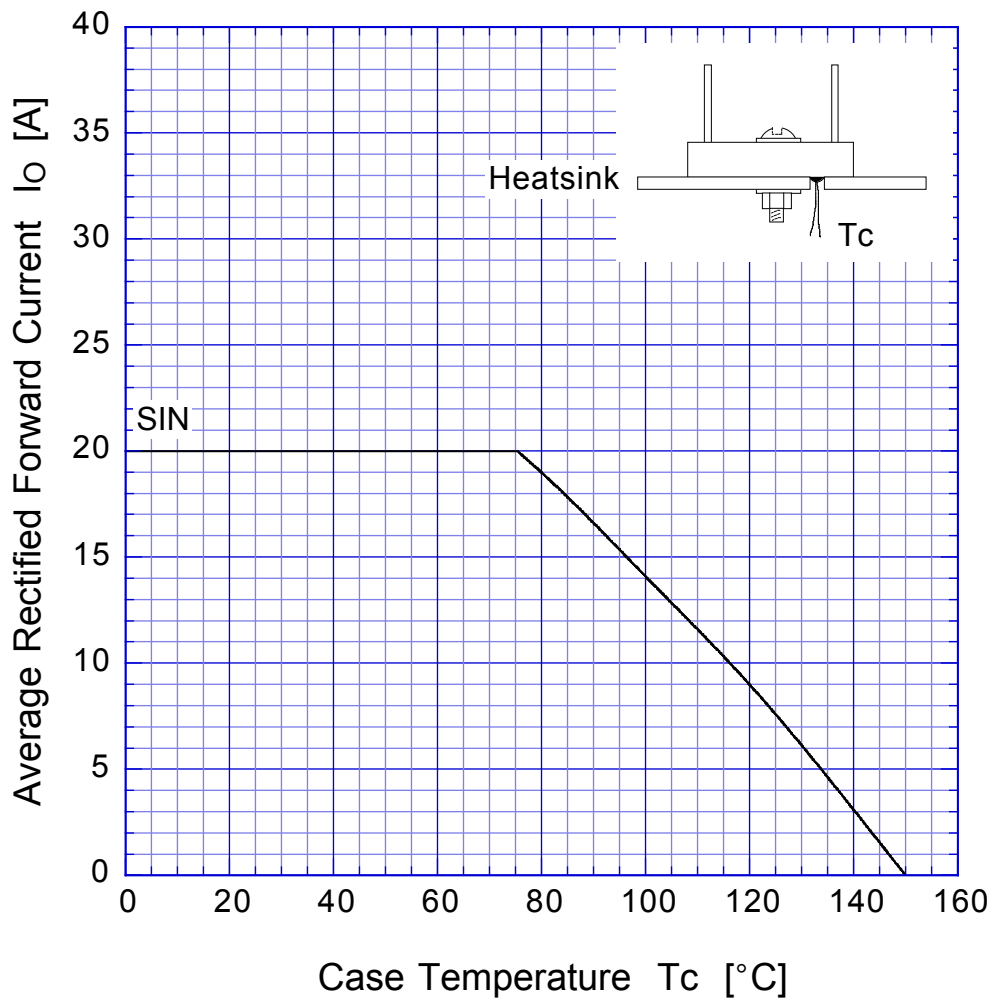
## S20WBx Forward Power Dissipation



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

# S20WBx

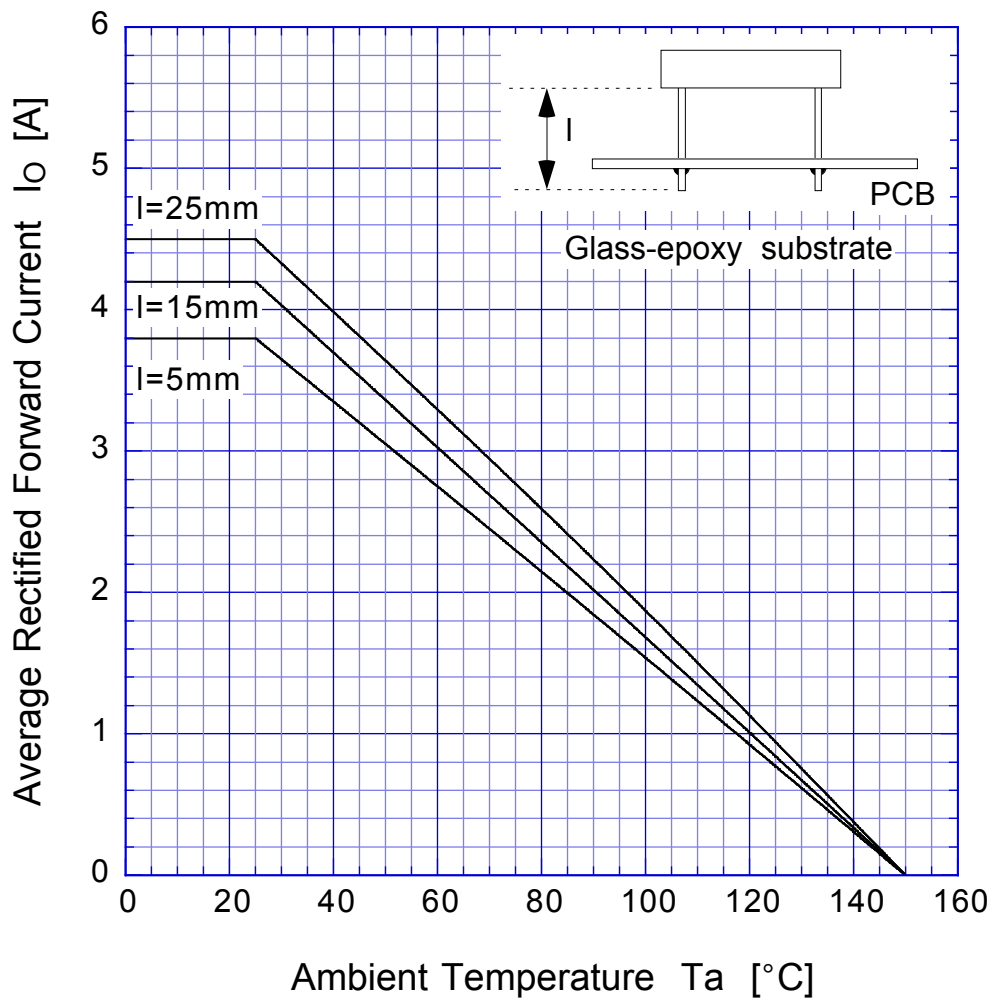
# Derating Curve



Sine wave  
R-load  
with heatsink

# S20WBx

# Derating Curve



Sine wave  
R-load  
Free in air

# S20WBx

## Peak Surge Forward Capability

