

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

# D20XB20

## 200V 20A

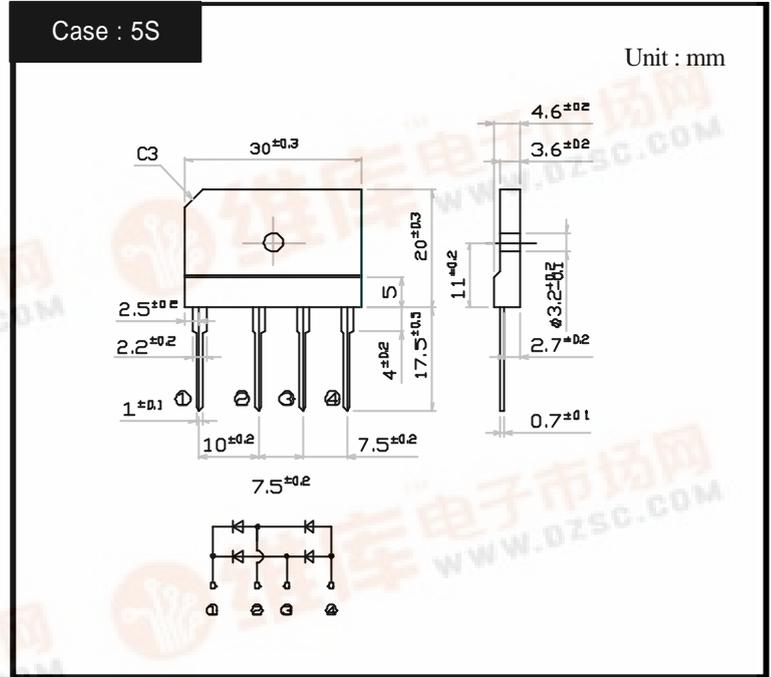
### FEATURES

- Thin Single In-Line Package
- High current capacity with Small Package
- High IFSM
- Superior Thermal Conductivity

### APPLICATION

- Switching power supply
- Home Appliances, Office Equipment
- Factory Automation, Inverter

### OUTLINE DIMENSIONS



### RATINGS

Absolute Maximum Ratings (If not specified Tc=25 )

| Item                              | Symbol           | Conditions  | Ratings   | Unit             |
|-----------------------------------|------------------|---|-----------|------------------|
| Storage Temperature               | Tstg             |   | -40 ~ 150 |                  |
| Operating Junction Temperature    | Tj               |   | 150       |                  |
| Maximum Reverse Voltage           | V <sub>RM</sub>  |   | 200       | V                |
| Average Rectified Forward Current | I <sub>O</sub>   | 50Hz sine wave, R-load With heatsink Tc=87              | 20        | A                |
|                                   |                  | 50Hz sine wave, R-load Without heatsink Ta=25           | 3.5       |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, Tj=25 | 240       | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms t < 10ms Tj=25                                      | 200       | A <sup>2</sup> s |
| Dielectric Strength               | V <sub>dis</sub> | Terminals to case, AC 1 minute                          | 2.5       | kV               |
| Mounting Torque                   | TOR              | (Recommended torque : 0.5N·m )                          | 0.8       | N·m              |

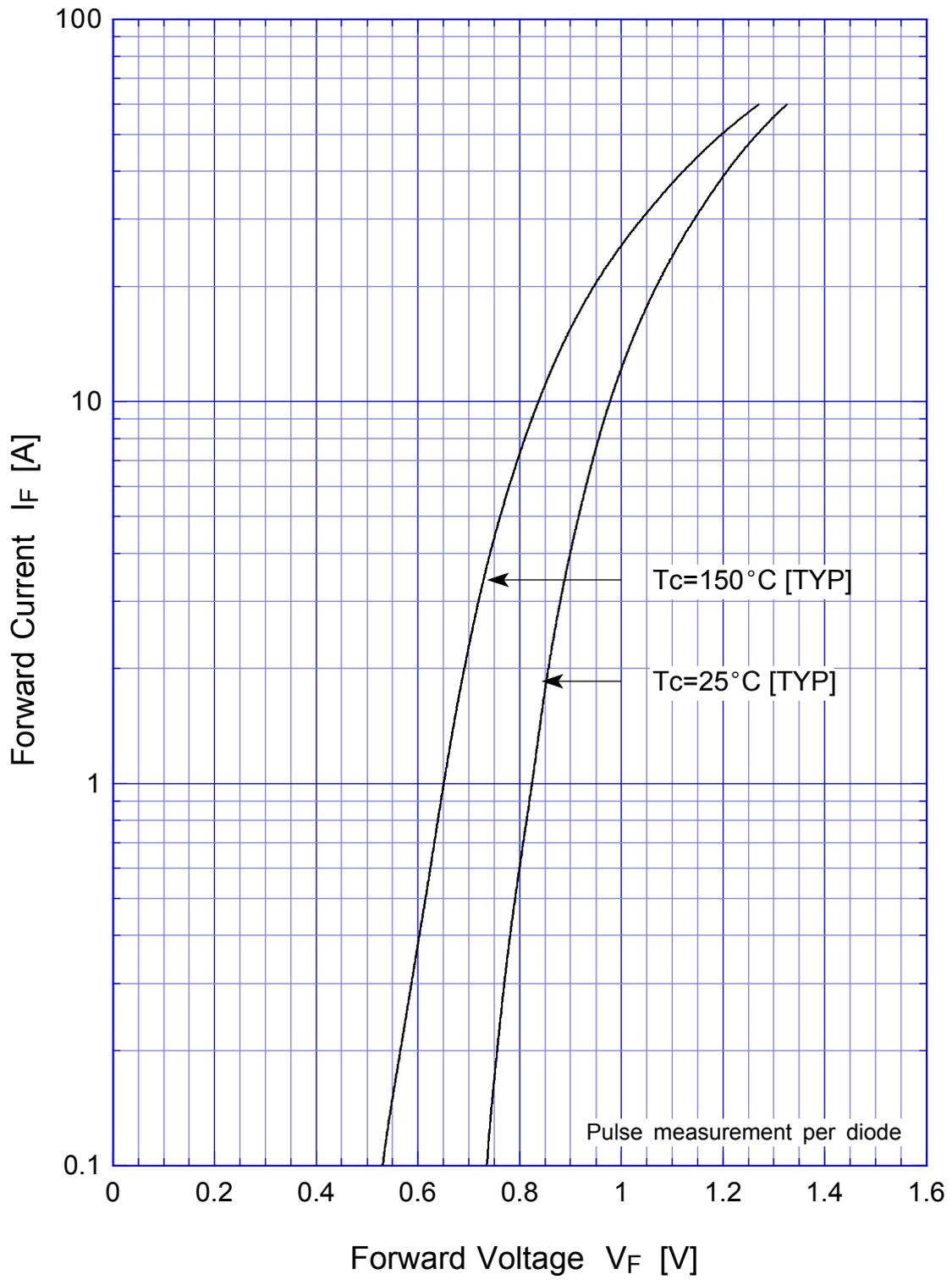
Electrical Characteristics (If not specified Tc=25 )

| Item               | Symbol         | Conditions   | Ratings | Unit |
|--------------------|----------------|--|---------|------|
| Forward Voltage    | V <sub>F</sub> | IF=10A, Pulse measurement, Rating of per diode                           | Max.1.1 | 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 | j <sub>c</sub> | junction to case With heatsink   | Max.1.5 | /W   |
|                    | j <sub>l</sub> | junction to lead Without heatsink  | Max.5   |      |
|                    | j <sub>a</sub> | junction to ambient Without heatsink                                     | Max.22  |      |

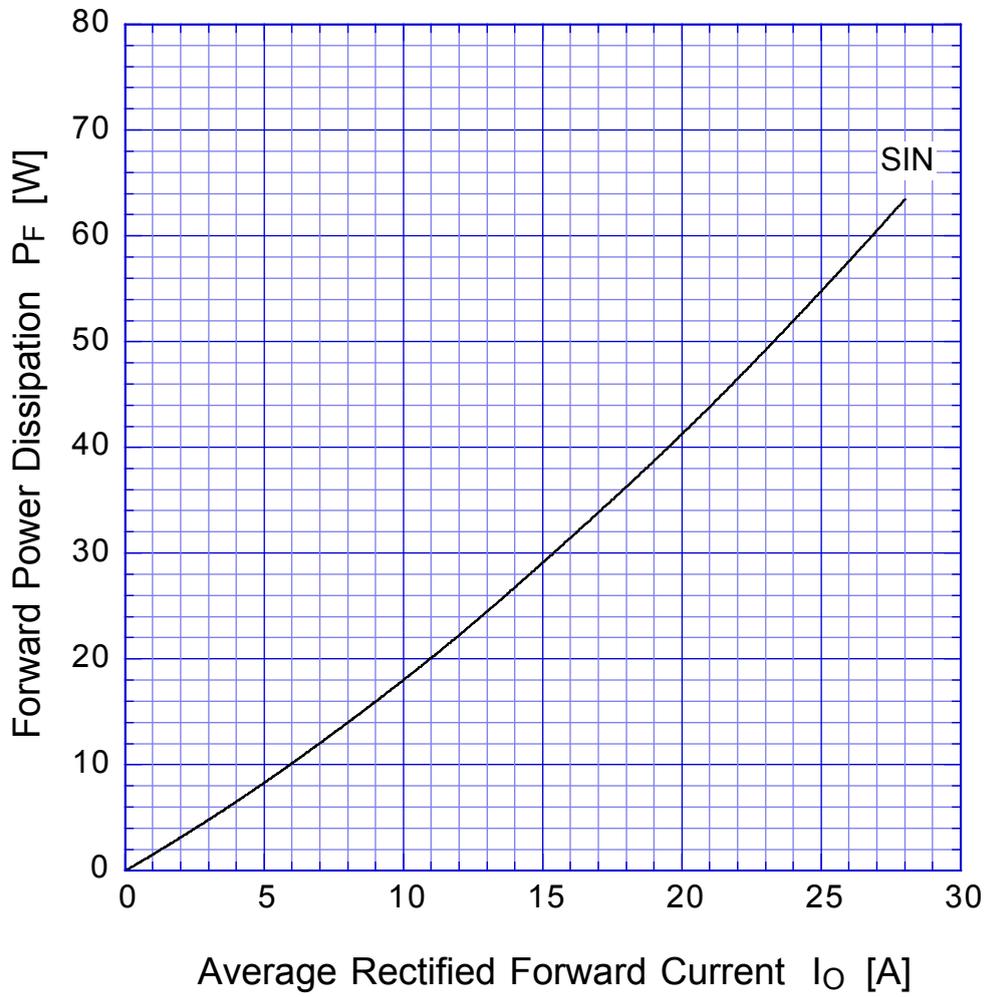


D20XBx

Forward Voltage



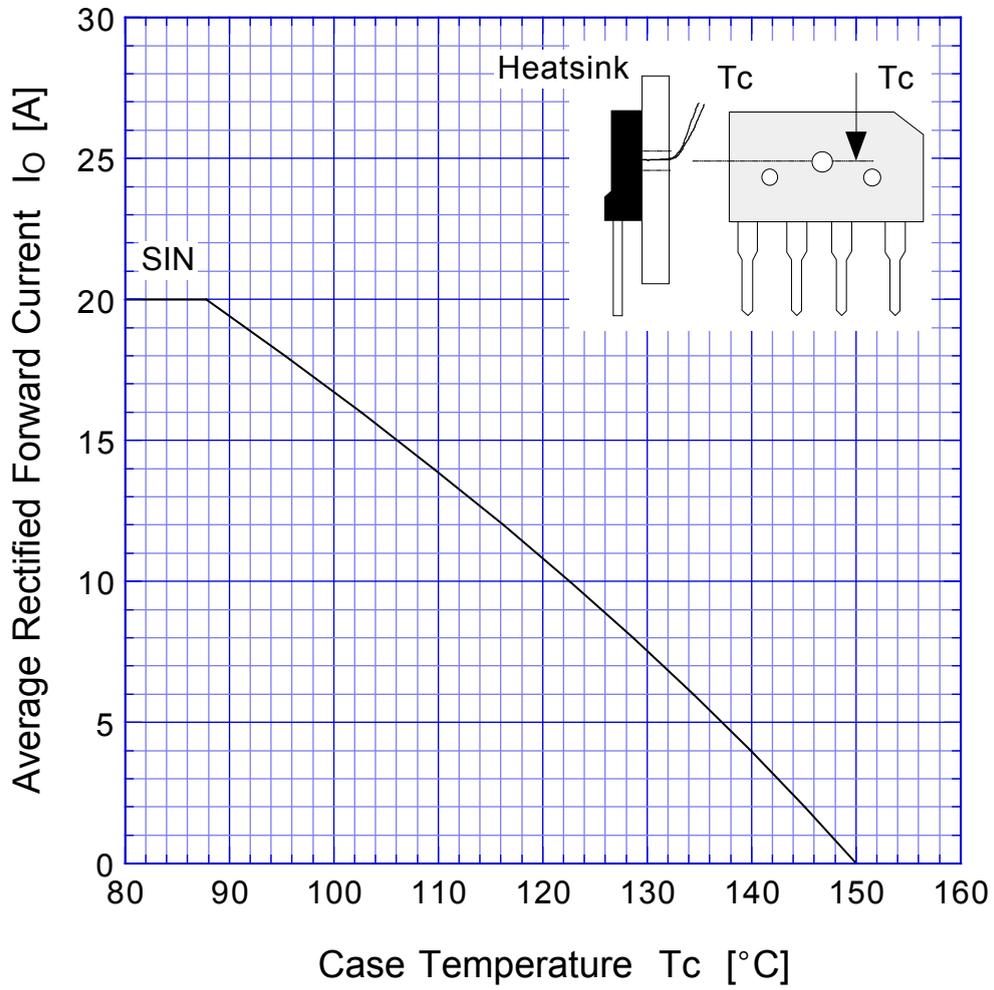
D20XBx Forward Power Dissipation



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

# D20XBx

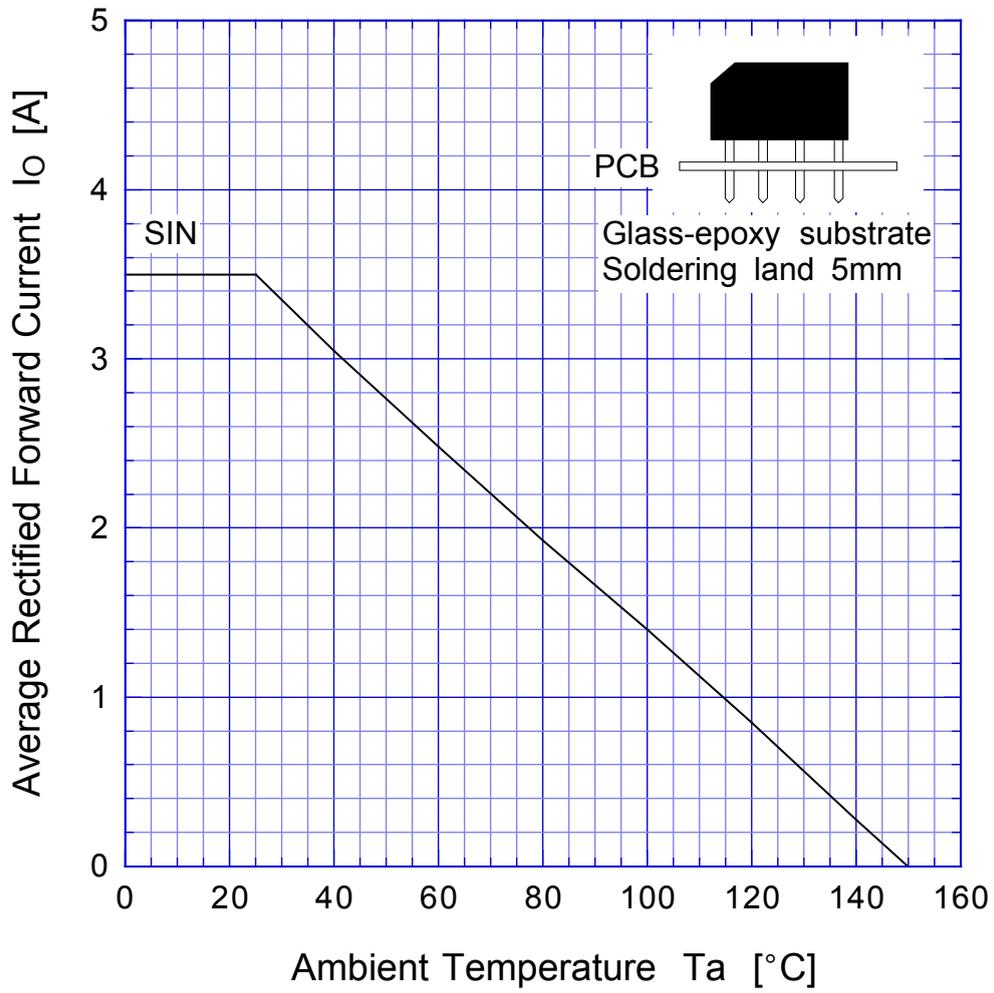
# Derating Curve



Sine wave  
R-load  
with heatsink

# D20XBx

# Derating Curve



Sine wave  
R-load  
Free in air

# D20XBx

## Peak Surge Forward Capability

