

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

# D10XB60

## 600V 10A

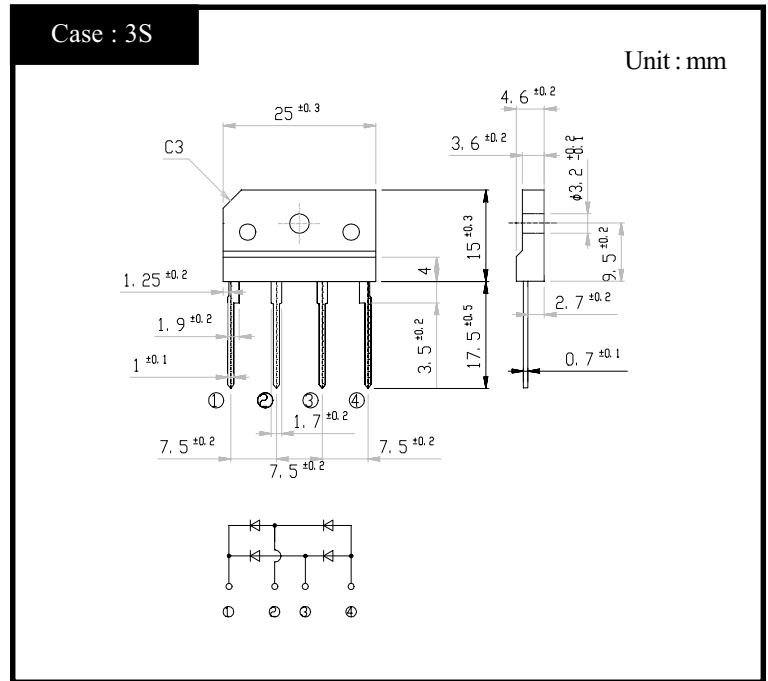
### FEATURES

- 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 T<sub>c</sub>=25°C)

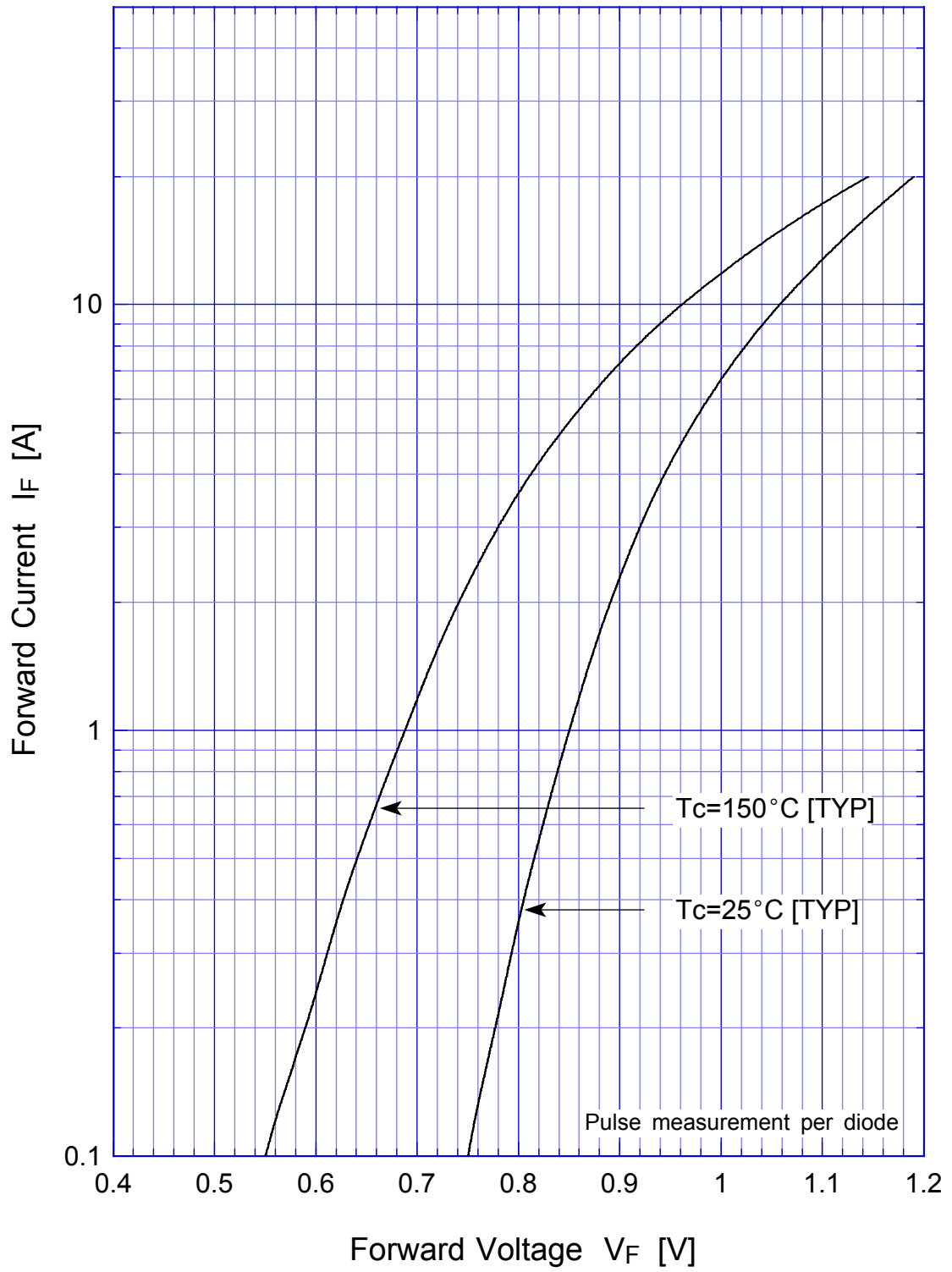
| Item                              | Symbol           | Conditions   | Ratings | Unit             |
|-----------------------------------|------------------|--|---------|------------------|
| Storage Temperature               | T <sub>stg</sub> |  | -40~150 | °C               |
| Operating Junction Temperature    | T <sub>j</sub>   |  | 150     | °C               |
| Maximum Reverse Voltage           | V <sub>RM</sub>  |  | 600     | V                |
| Average Rectified Forward Current | I <sub>O</sub>   | 50Hz sine wave, R-load With heatsink T <sub>c</sub> =100°C             | 10      | A                |
|                                   |                  | 50Hz sine wave, R-load Without heatsink T <sub>a</sub> =25°C           | 2.7     |                  |
| Peak Surge Forward Current        | I <sub>FSM</sub> | 50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C | 120     | A                |
| Current Squared Time              | I <sup>2</sup> t | 1ms ≤ t < 10ms T <sub>j</sub> =25°C                                    | 60      | 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 T<sub>c</sub>=25°C)

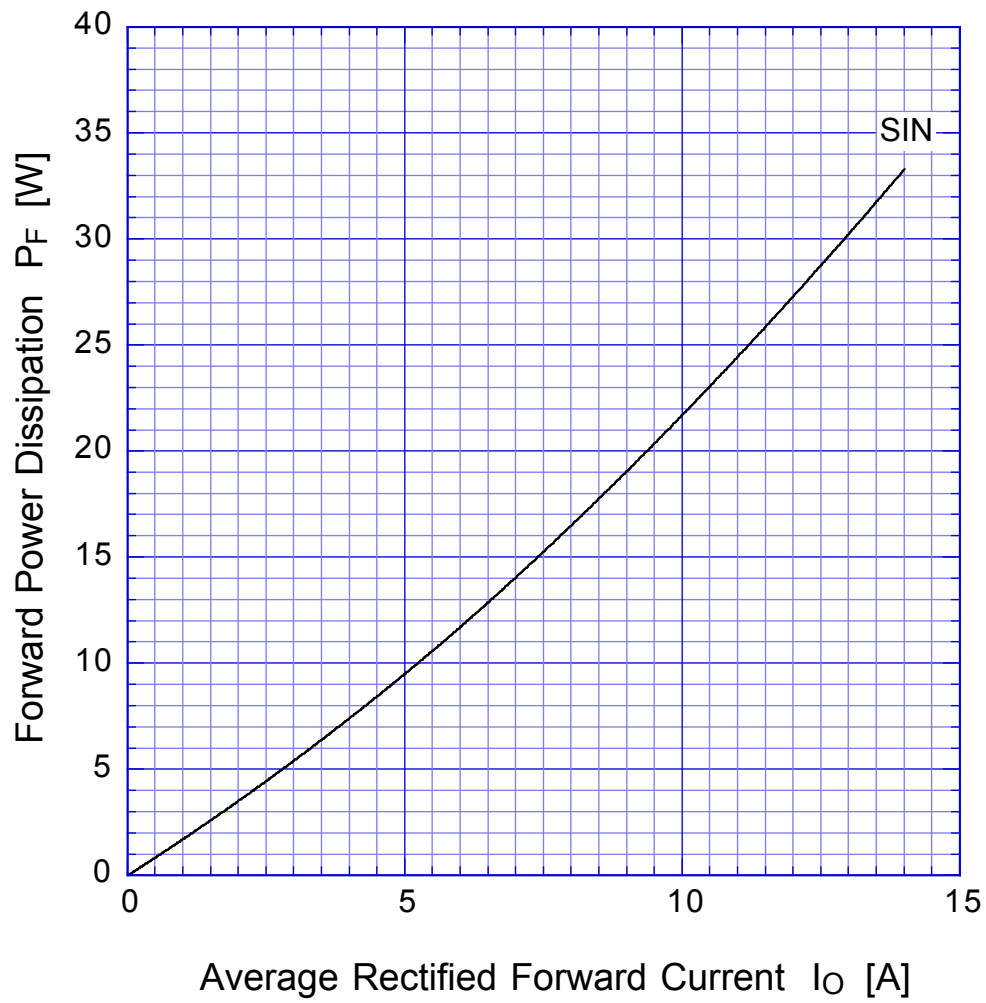
| Item               | Symbol          | Conditions   | Ratings | Unit |
|--------------------|-----------------|--|---------|------|
| Forward Voltage    | V <sub>F</sub>  | I <sub>F</sub> =5A, Pulse measurement, Rating of per diode               | Max.1.1 | V    |
| Reverse Current    | I <sub>R</sub>  | V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode | Max.10  | μA   |
| Thermal Resistance | θ <sub>jc</sub> | junction to case With heatsink   | Max.2.3 | °C/W |
|                    | θ <sub>jl</sub> | junction to lead Without heatsink  | Max.6   |      |
|                    | θ <sub>ja</sub> | junction to ambient Without heatsink                                     | Max.26  |      |

D10XBx

Forward Voltage



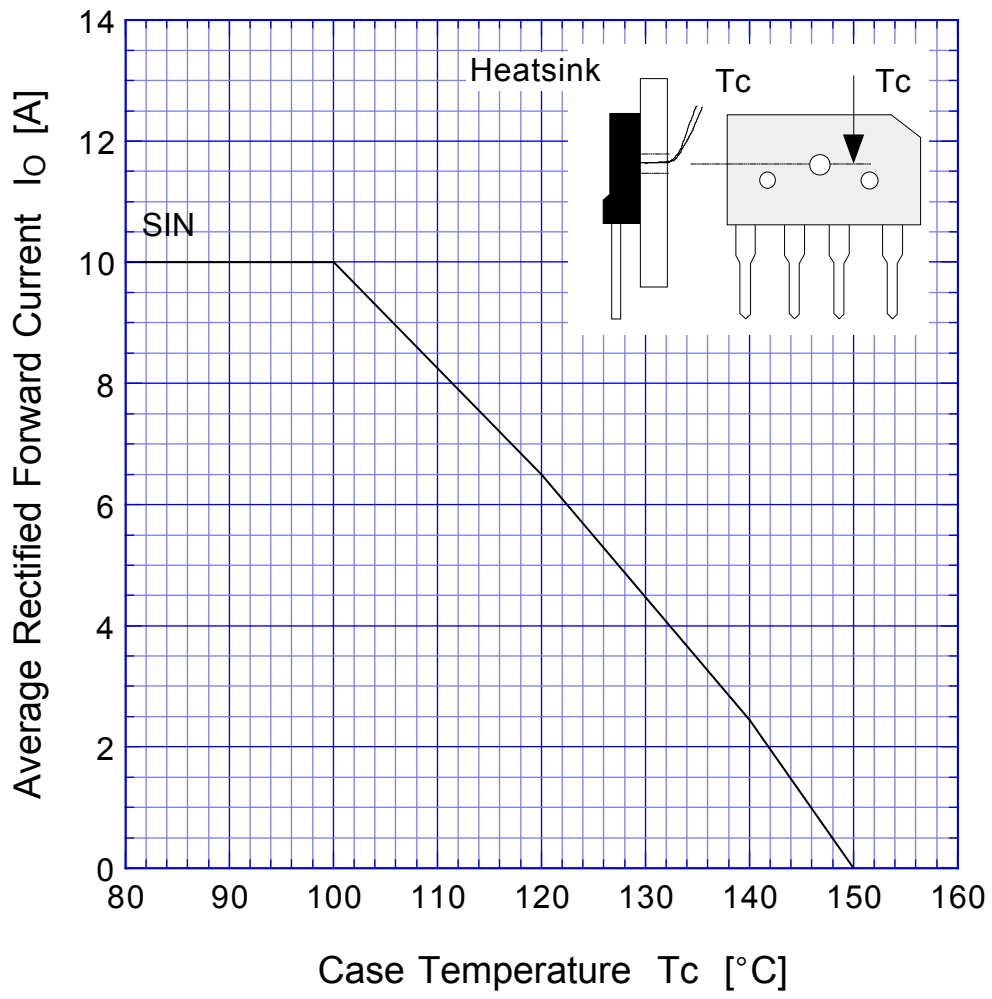
## D10XBx Forward Power Dissipation



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

# D10XBx

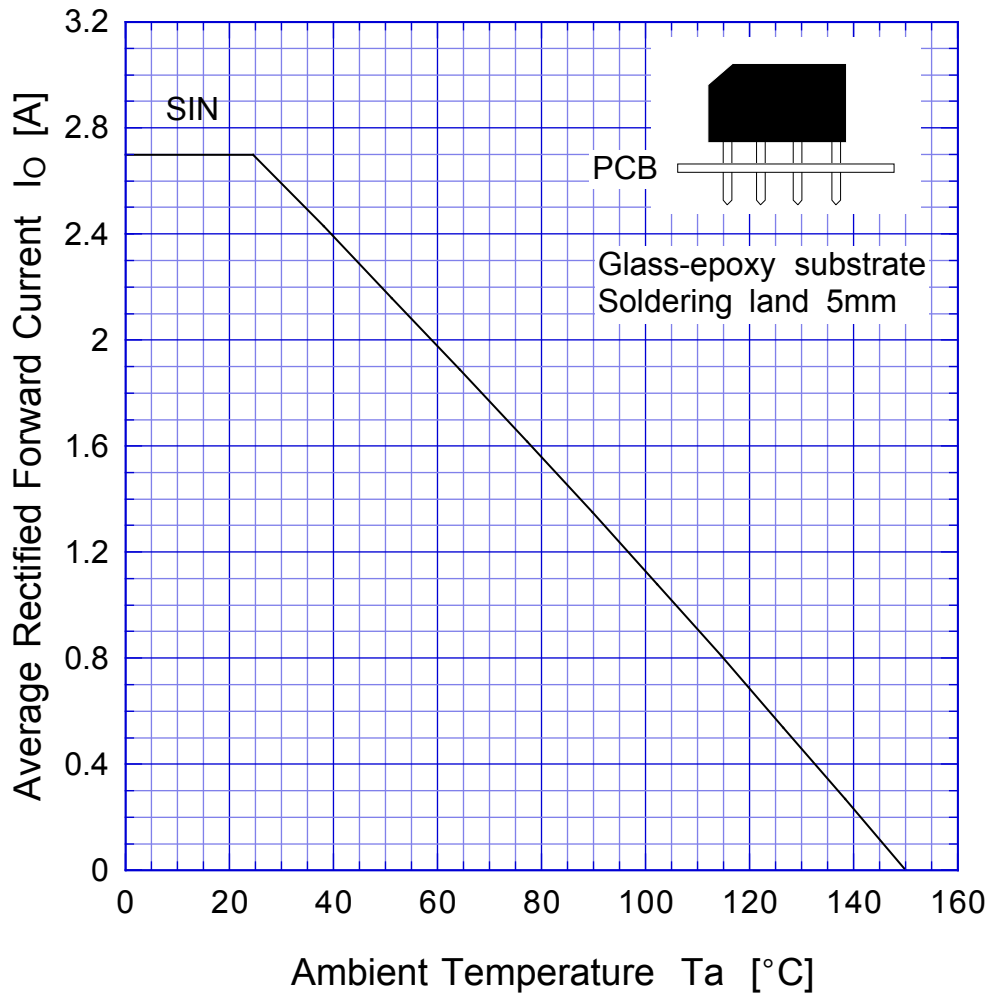
## Derating Curve



Sine wave  
R-load  
with heatsink

# D10XBx

# Derating Curve



# D10XBx

## Peak Surge Forward Capability

