

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

# D10XB80

## 800V 10A

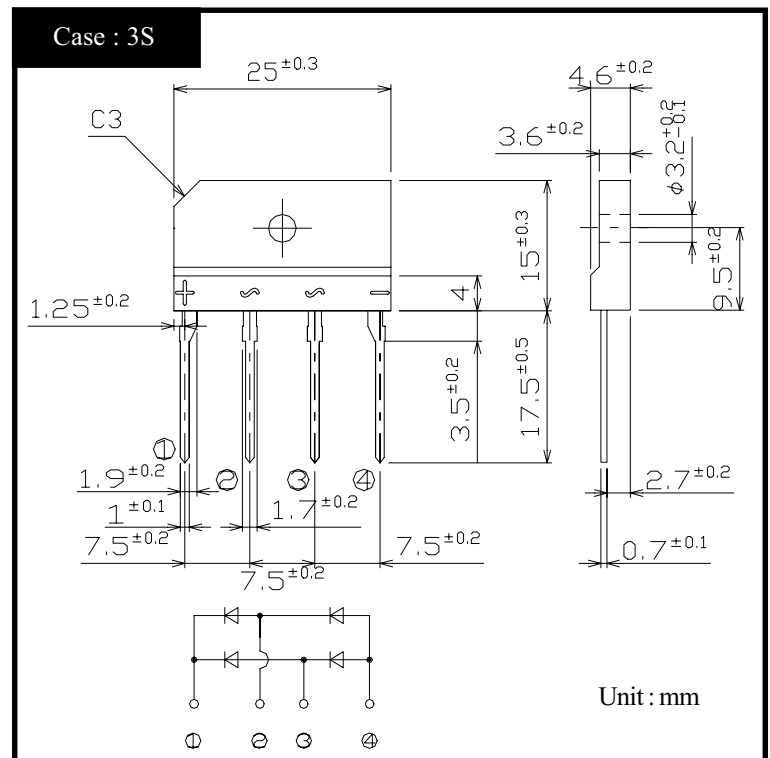
### FEATURES

- 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 $T_c=25^\circ\text{C}$ )

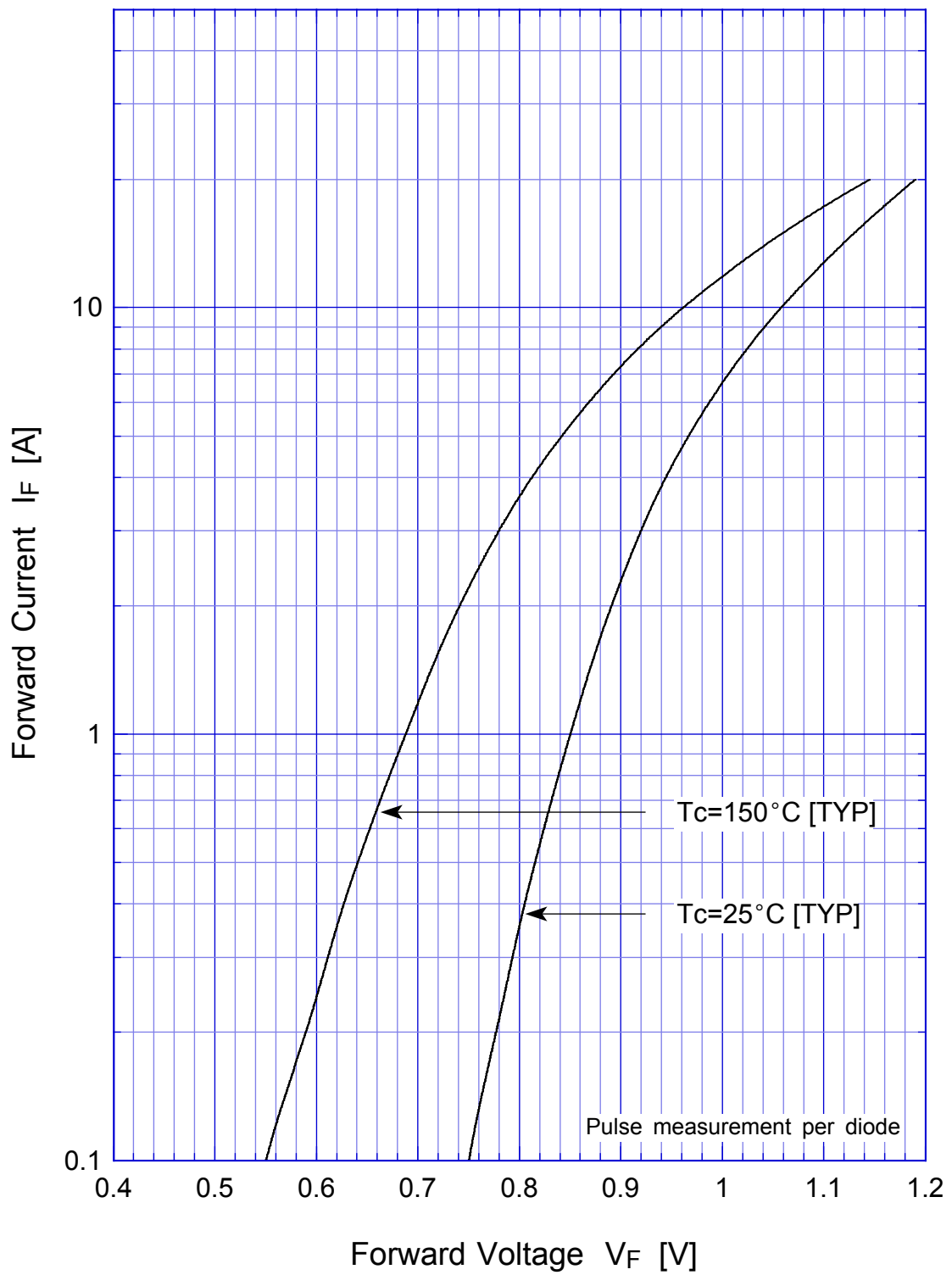
| Item                              | Symbol    | Conditions   | Ratings | Unit                    |
|-----------------------------------|-----------|--|---------|-------------------------|
| Storage Temperature               | $T_{stg}$ |  | -40~150 | $^\circ\text{C}$        |
| Operating Junction Temperature    | $T_j$     |  | 150     | $^\circ\text{C}$        |
| Maximum Reverse Voltage           | $V_{RM}$  |  | 800     | V                       |
| Average Rectified Forward Current | $I_O$     | 50Hz sine wave, R-load With heatsink $T_c=100^\circ\text{C}$             | 10      | A                       |
|                                   |           | 50Hz sine wave, R-load Without heatsink $T_a=25^\circ\text{C}$           | 2.7     |                         |
| Peak Surge Forward Current        | $I_{FSM}$ | 50Hz sine wave, Non-repetitive 1cycle peak value, $T_j=25^\circ\text{C}$ | 120     | A                       |
| Current Squared Time              | $I^2t$    | $1\text{ms} \leq t < 10\text{ms}$ $T_j=25^\circ\text{C}$                 | 60      | $\text{A}^2\text{s}$    |
| Dielectric Strength               | $V_{dis}$ | Terminals to case, AC 1 minute   | 2.5     | kV                      |
| Mounting Torque                   | TOR       | (Recommended torque: $0.5\text{N}\cdot\text{m}$ )                        | 0.8     | $\text{N}\cdot\text{m}$ |

#### ● Electrical Characteristics (If not specified $T_c=25^\circ\text{C}$ )

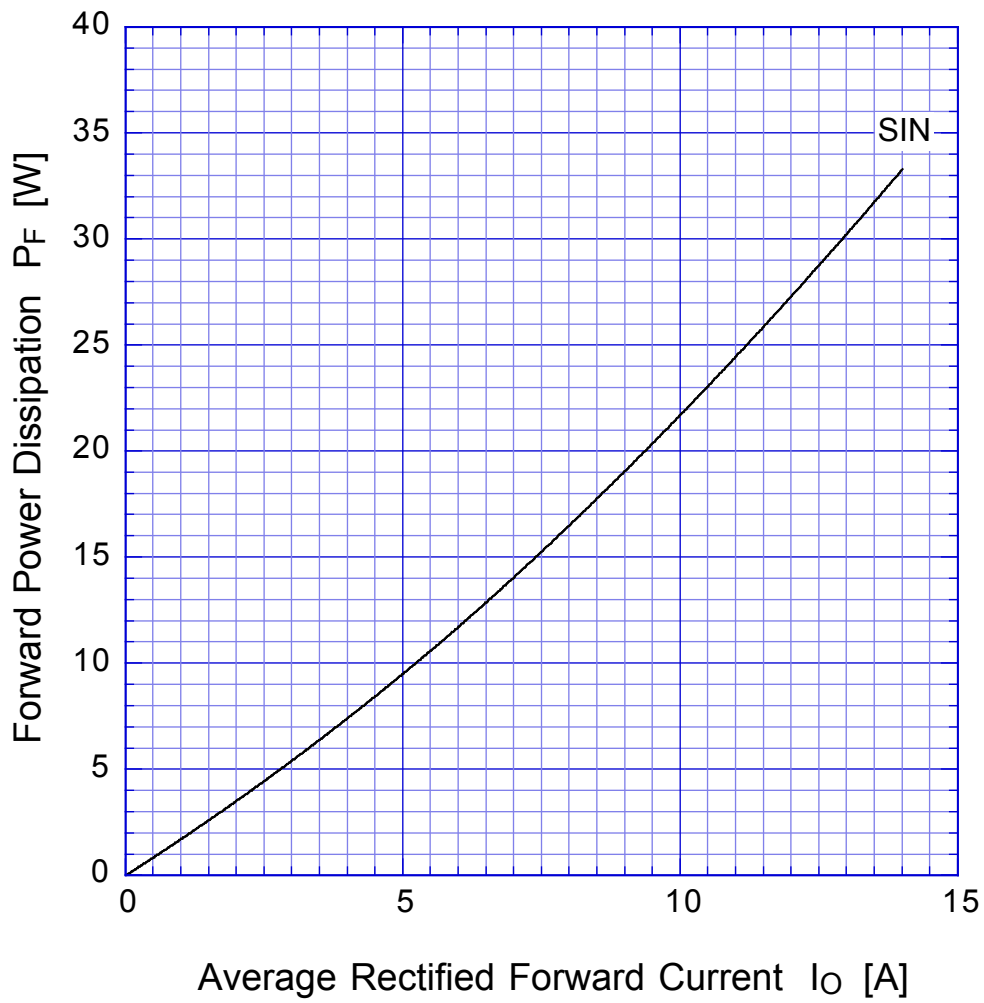
| Item               | Symbol        | Conditions   | Ratings | Unit                      |
|--------------------|---------------|--|---------|---------------------------|
| Forward Voltage    | $V_F$         | $I_F=5\text{A}$ , Pulse measurement, Rating of per diode | Max.1.1 | V                         |
| Reverse Current    | $I_R$         | $V_R=V_{RM}$ , Pulse measurement, Rating of per diode    | Max.10  | $\mu\text{A}$             |
| Thermal Resistance | $\theta_{jc}$ | junction to case With heatsink                           | Max.2.3 | $^\circ\text{C}/\text{W}$ |
|                    | $\theta_{jl}$ | junction to lead Without heatsink                        | Max.6   |                           |
|                    | $\theta_{ja}$ | junction to ambient Without heatsink                     | Max.26  |                           |

D10XBx

Forward Voltage



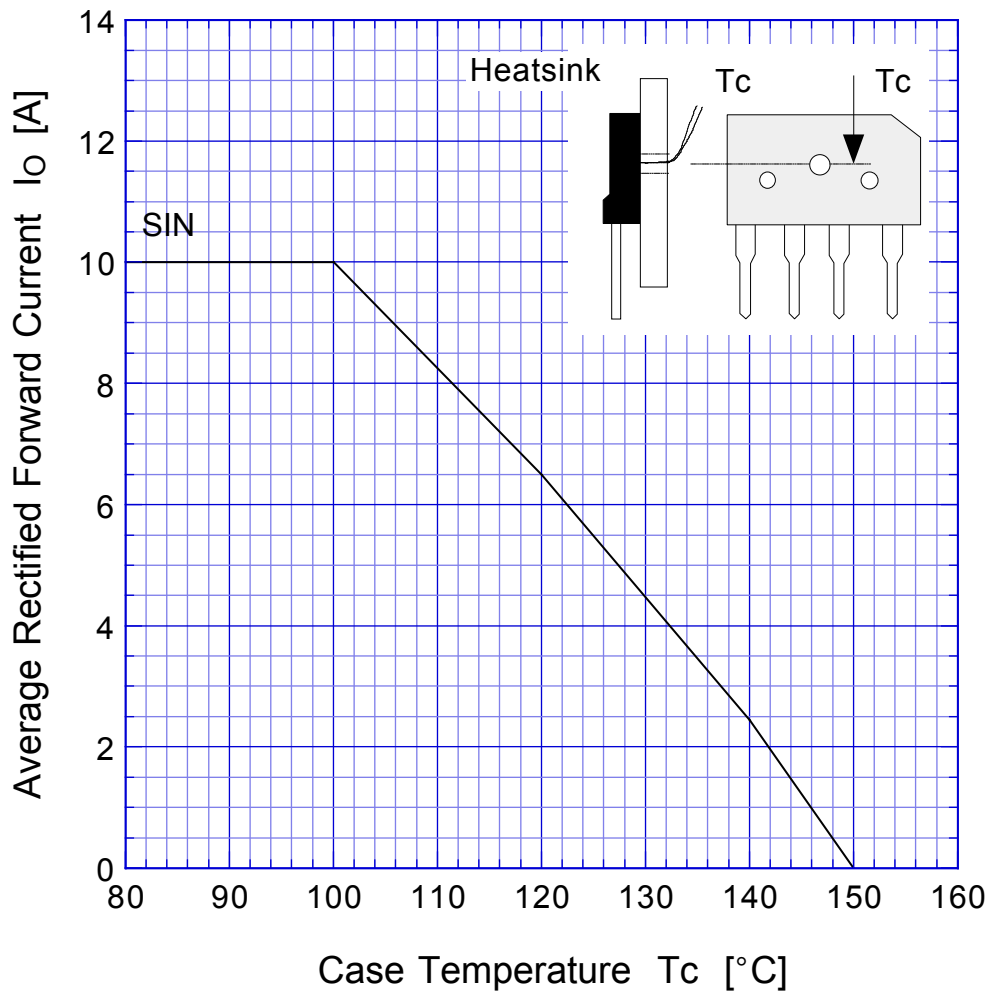
# D10XBx Forward Power Dissipation



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

# D10XBx

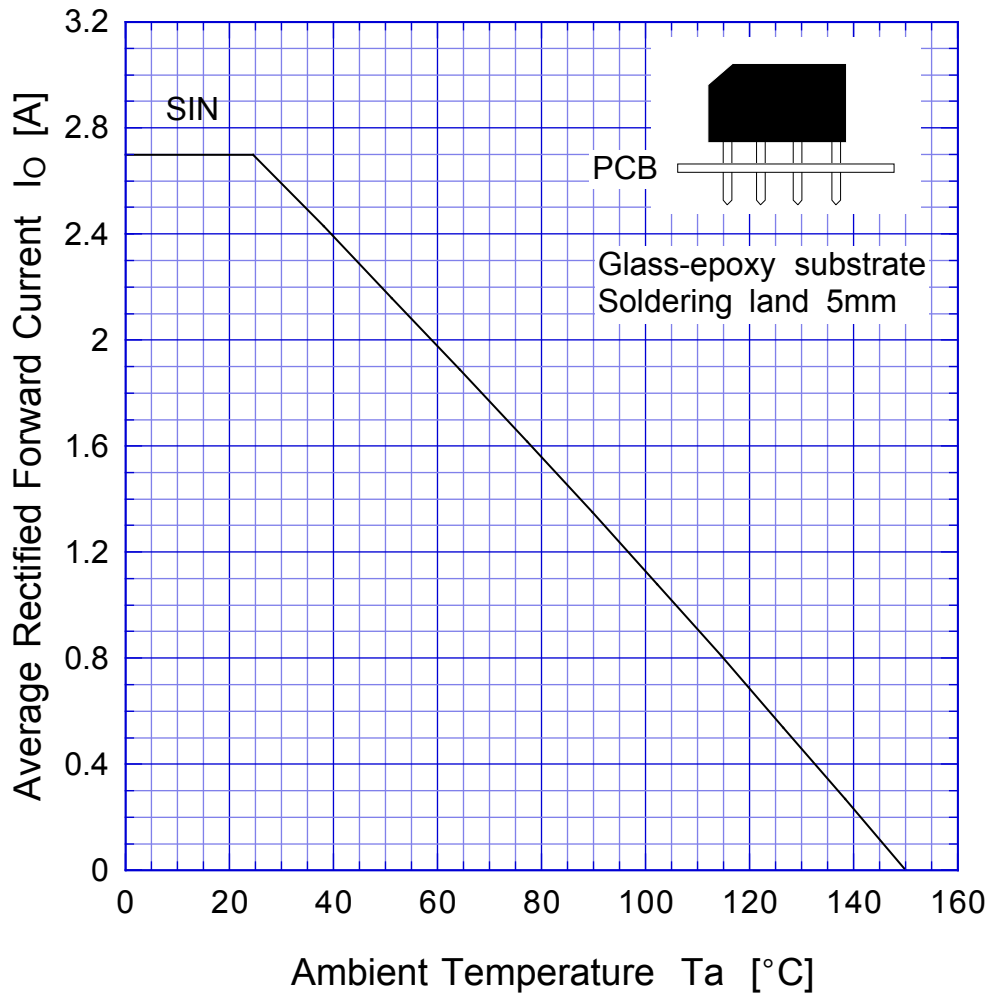
## Derating Curve



Sine wave  
R-load  
with heatsink

# D10XBx

# Derating Curve



Sine wave  
R-load  
Free in air

# D10XBx

## Peak Surge Forward Capability

