

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

# D15XB20

## 200V 15A

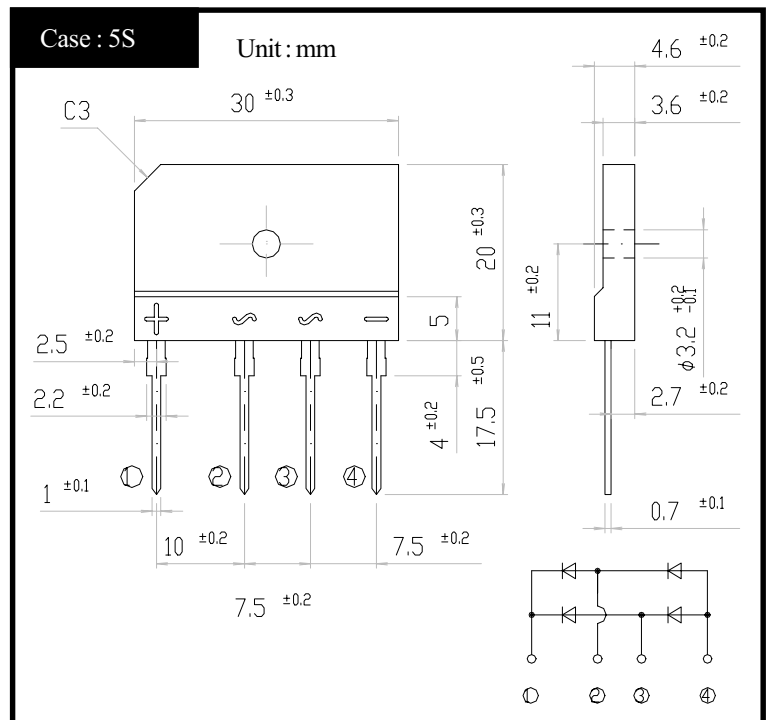
### FEATURES

- 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°C)

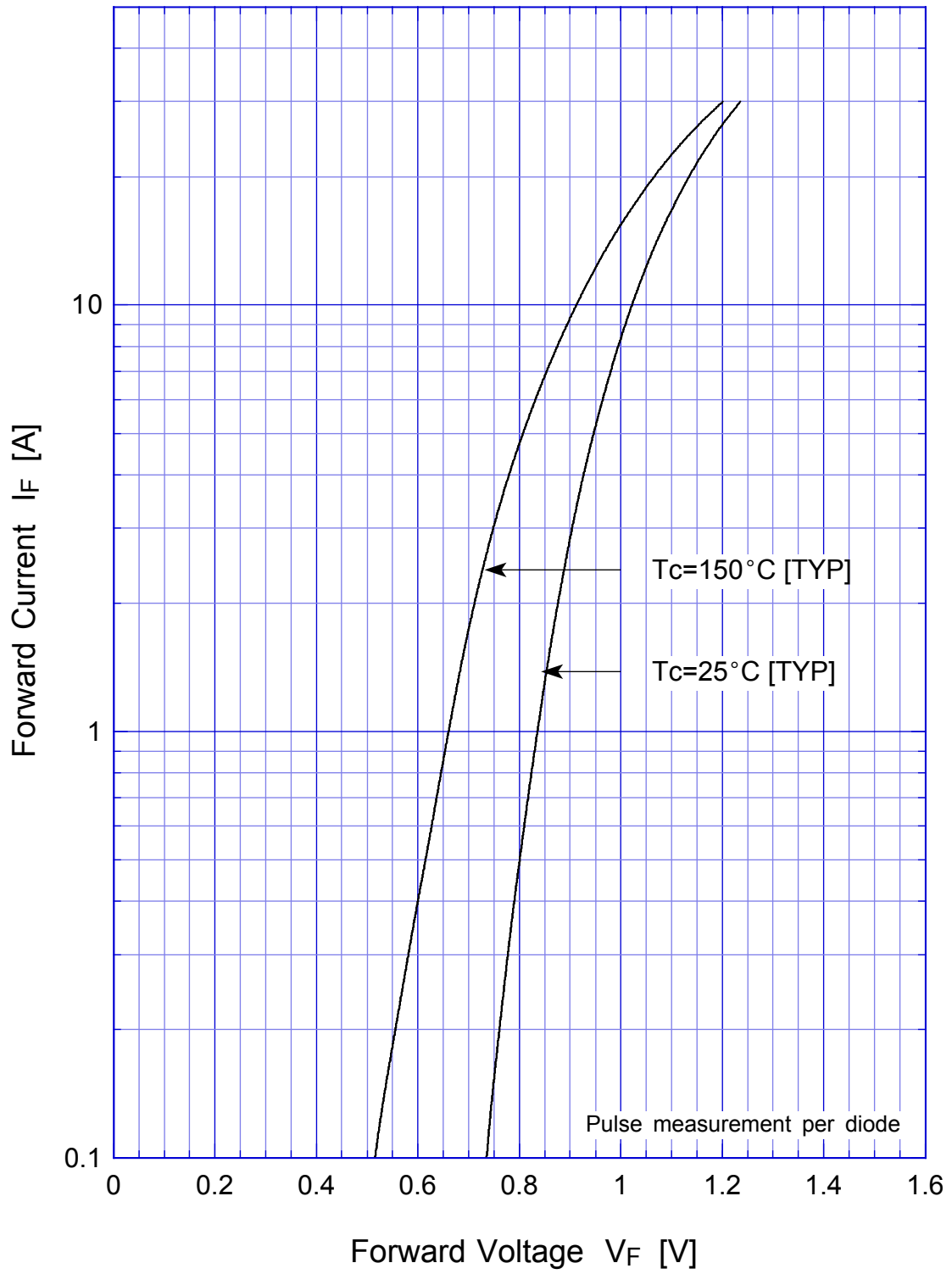
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40~150	°C
Operating Junction Temperature	T <sub>j</sub>		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		200	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load With heatsink T <sub>c</sub> =100°C	15	A
		50Hz sine wave, R-load Without heatsink T <sub>a</sub> =25°C	3.2	
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C	200	A
Current Squared Time	I <sup>2</sup> t	1ms ≤ t < 10ms T <sub>j</sub> =25°C	110	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°C)

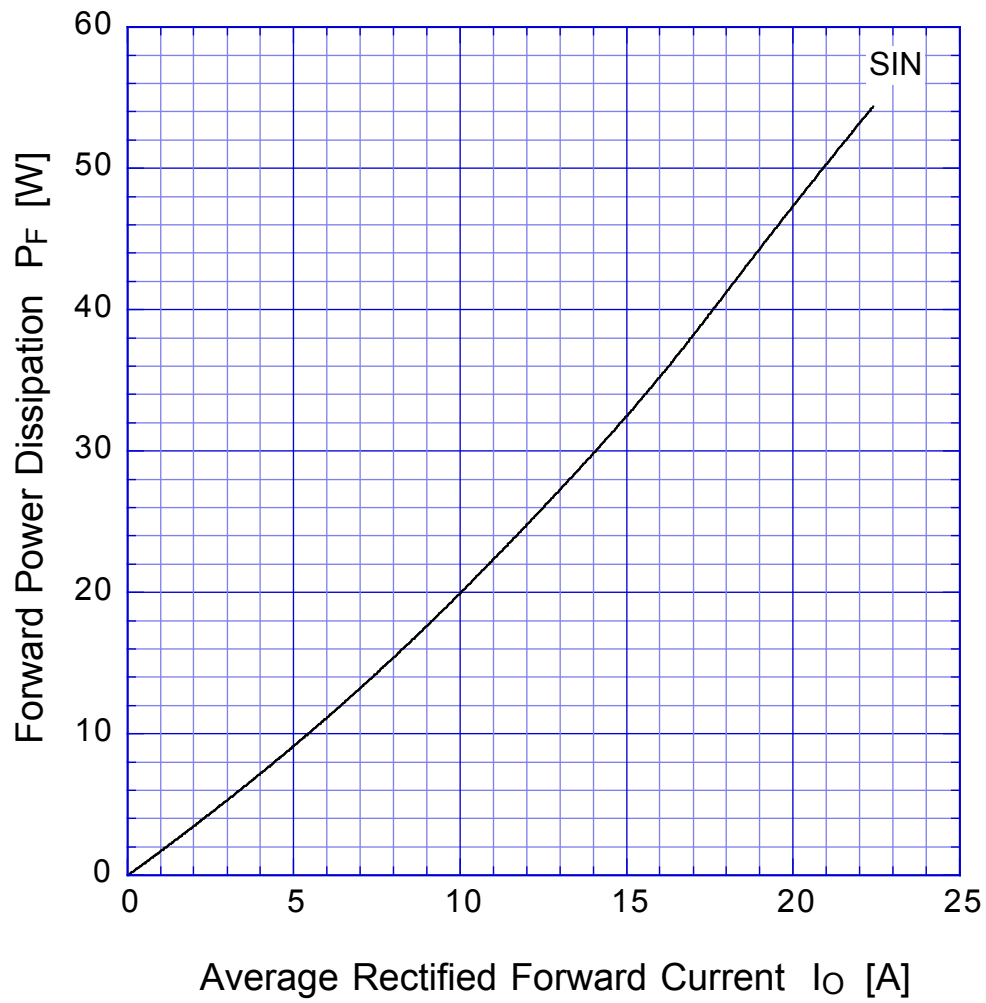
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =7.5A, Pulse measurement, Rating of per diode	Max.1.1	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.10	μA
Thermal Resistance	θ <sub>jc</sub>	junction to case With heatsink	Max.1.5	°C/W
	θ <sub>jl</sub>	junction to lead Without heatsink	Max.5	
	θ <sub>ja</sub>	junction to ambient Without heatsink	Max.22	

D15XBx

Forward Voltage



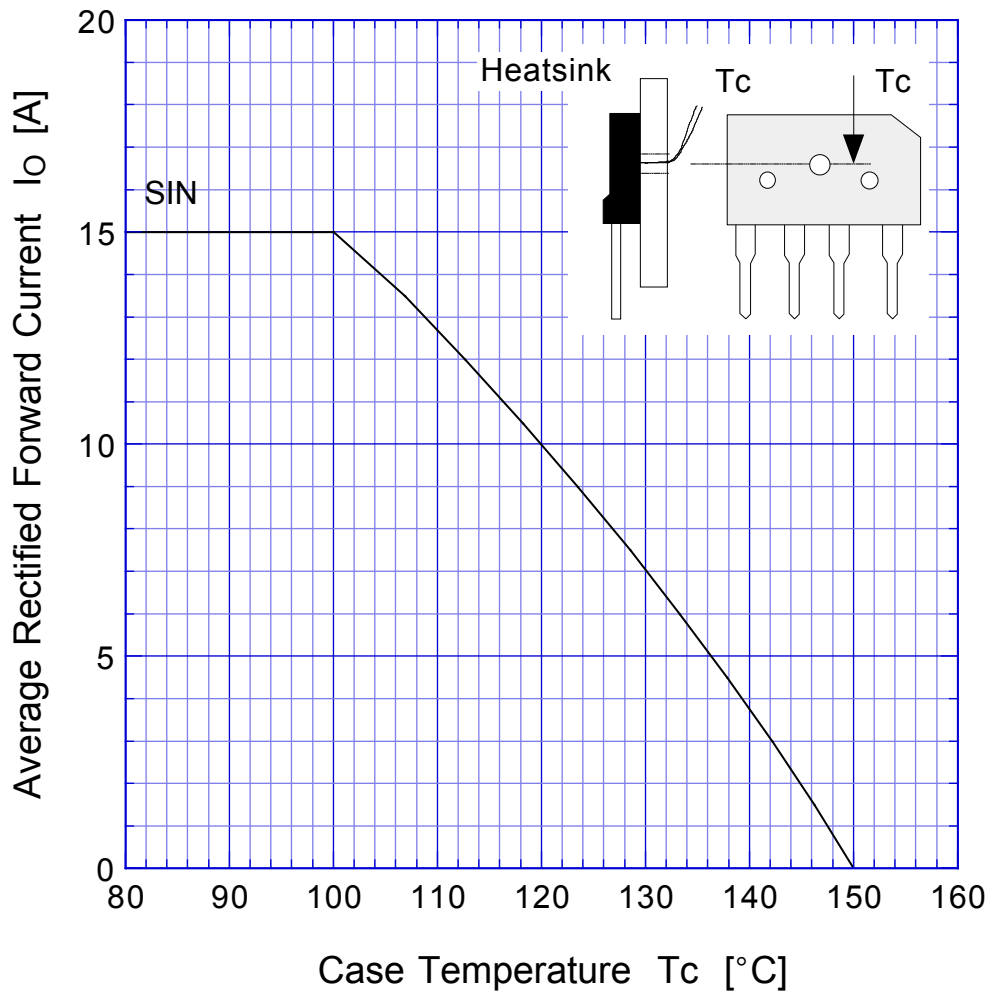
## D15XBx Forward Power Dissipation



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

# D15XBx

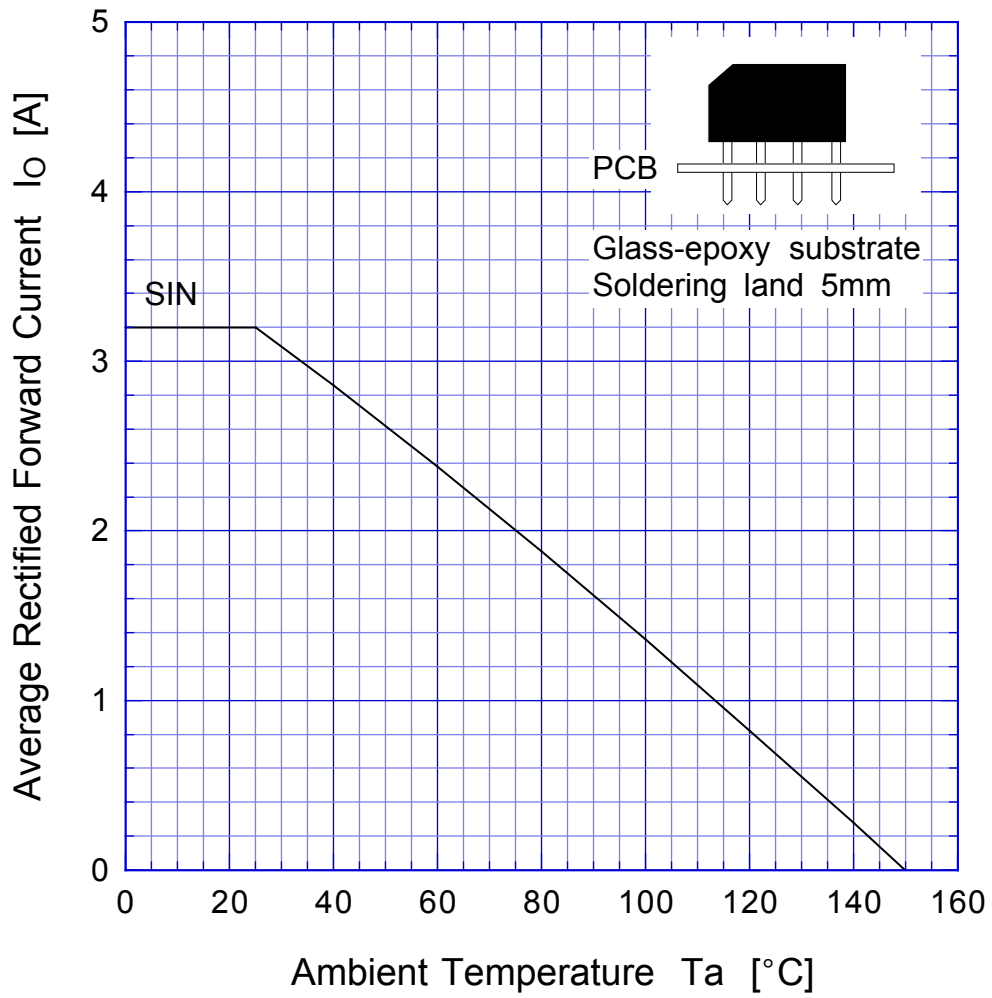
## Derating Curve



Sine wave  
R-load  
with heatsink

# D15XBx

# Derating Curve



Sine wave  
R-load  
Free in air

# D15XBx

## Peak Surge Forward Capability

