

# SHINDENGEN

## General Purpose Rectifiers

SIL Bridges

# D20XB80

## 800V 20A

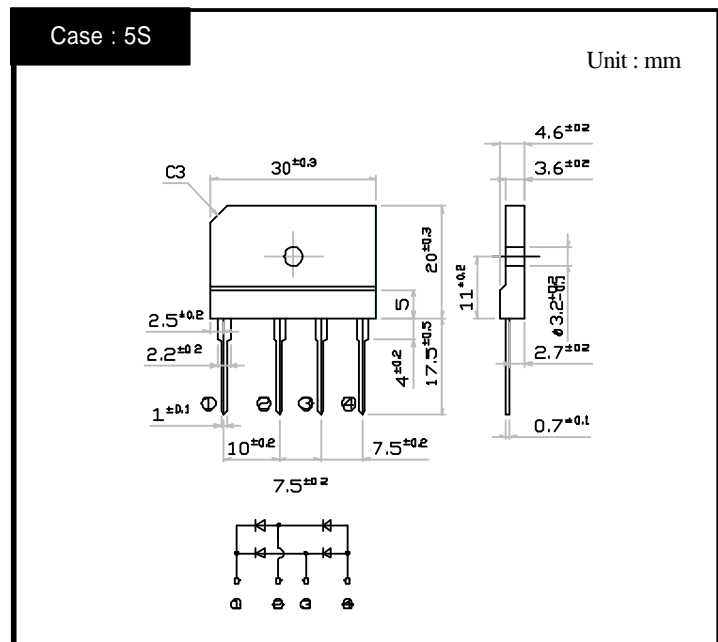
### FEATURES

- 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  $T_c=25$  )

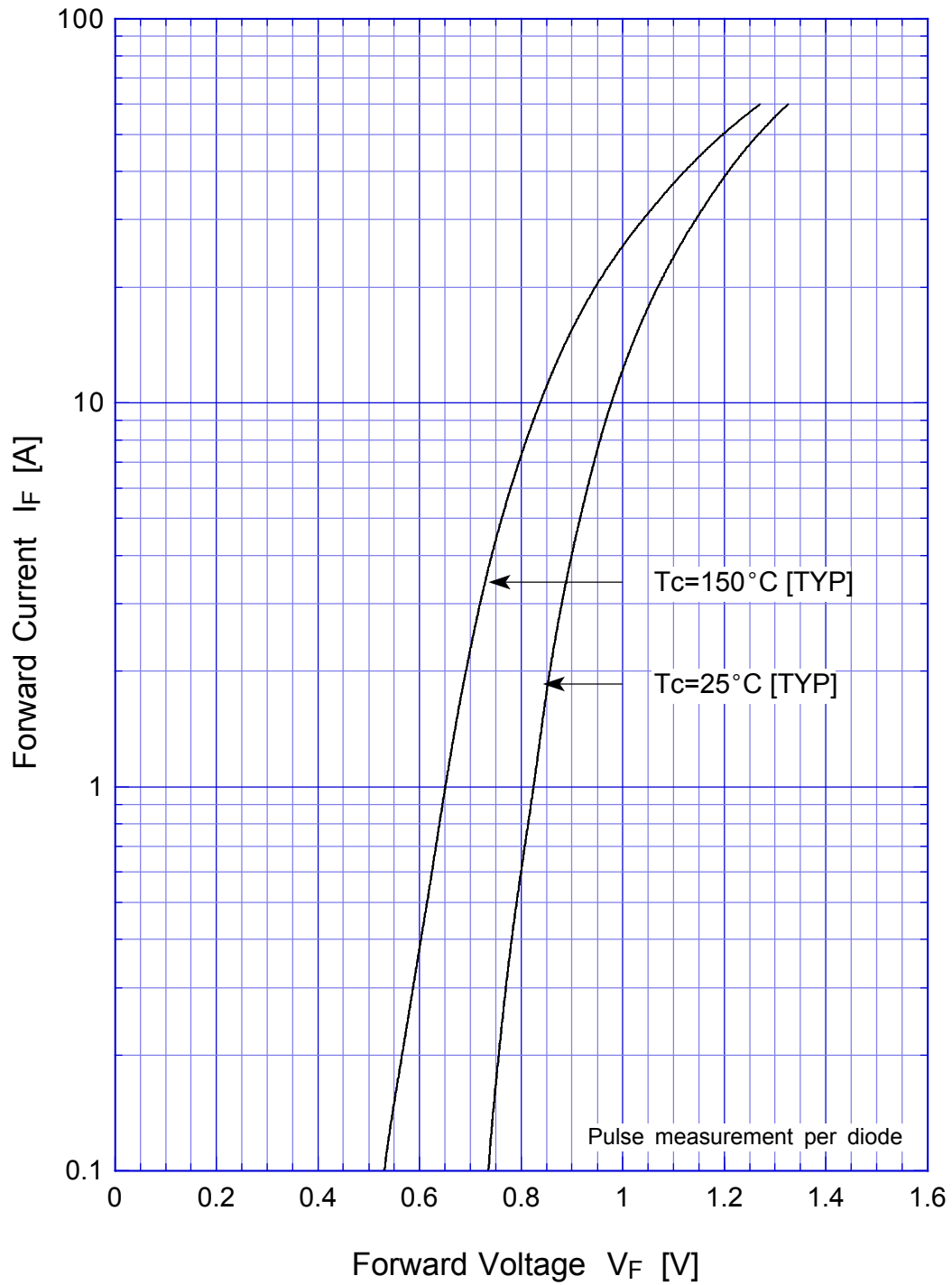
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	$T_{stg}$		-40 ~ 150	
Operating Junction Temperature	$T_j$		150	
Maximum Reverse Voltage	$V_{RM}$		800	V
Average Rectified Forward Current	$I_O$	50Hz sine wave, R-load With heatsink $T_c=87$	20	A
		50Hz sine wave, R-load Without heatsink $T_a=25$	3.5	
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1cycle peak value, $T_j=25$	240	A
Current Squared Time	$I^2t$	1ms $t < 10ms$ $T_j=25$	200	$A^2s$
Dielectric Strength	$V_{dis}$	Terminals to case, AC 1 minute	2.5	kV
Mounting Torque	TOR	(Recommended torque $\phi 0.5N \cdot m$ )	0.8	$N \cdot m$

Electrical Characteristics (If not specified  $T_c=25$  )

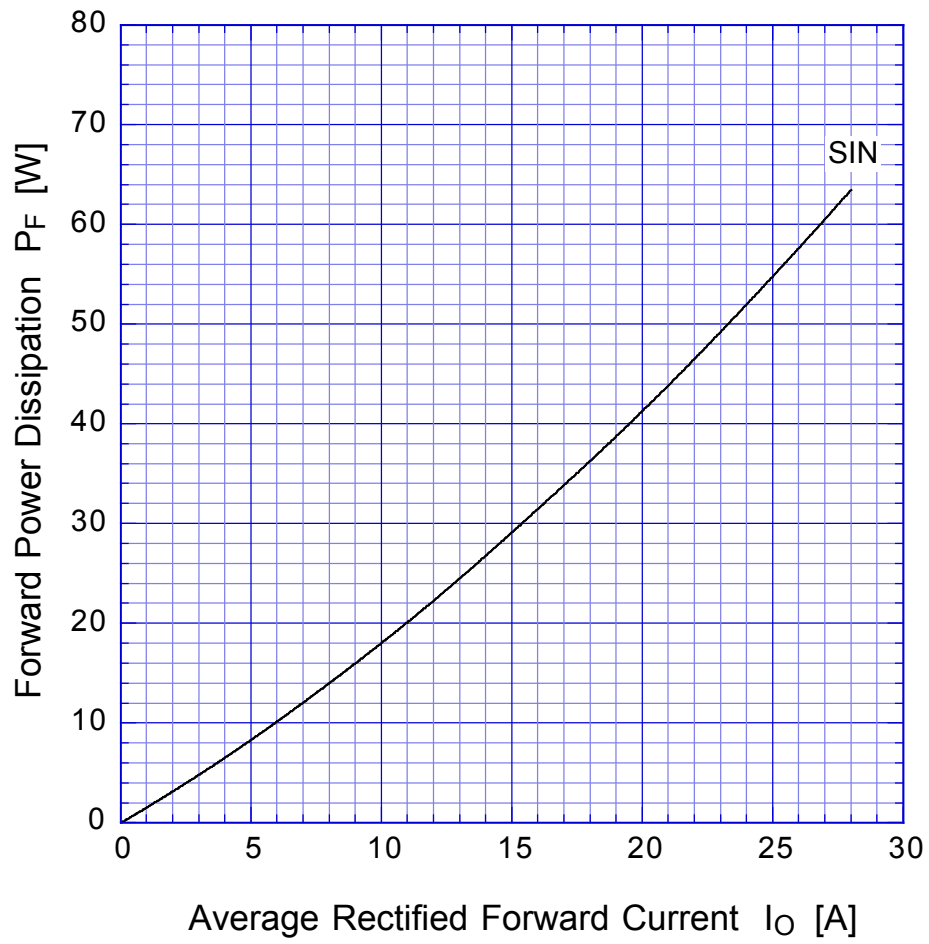
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=10A$ , Pulse measurement, Rating of per diode	Max.1.1	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement, Rating of per diode	Max.10	$\mu A$
Thermal Resistance	$\theta_{jc}$	junction to case With heatsink	Max.1.5	/W
	$\theta_{jl}$	junction to lead Without heatsink	Max.5	
	$\theta_{ja}$	junction to ambient Without heatsink	Max.22	

D20XBx

Forward Voltage



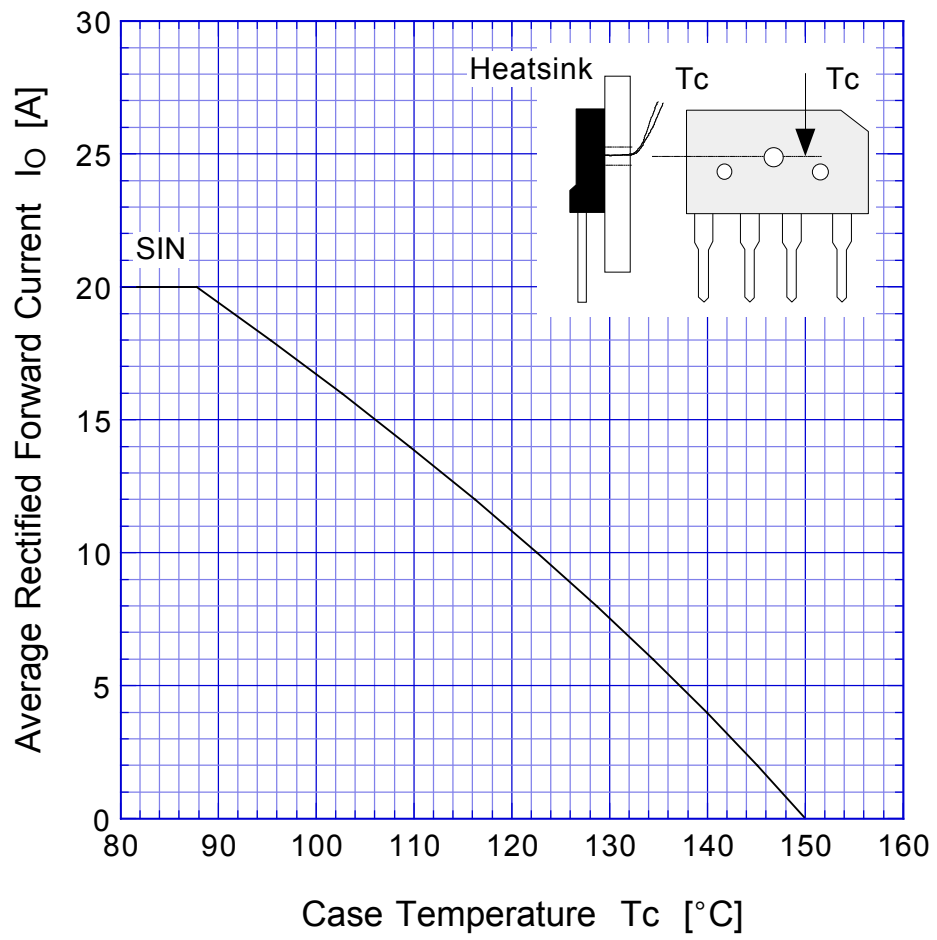
## D20XBx Forward Power Dissipation



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

# D20XBx

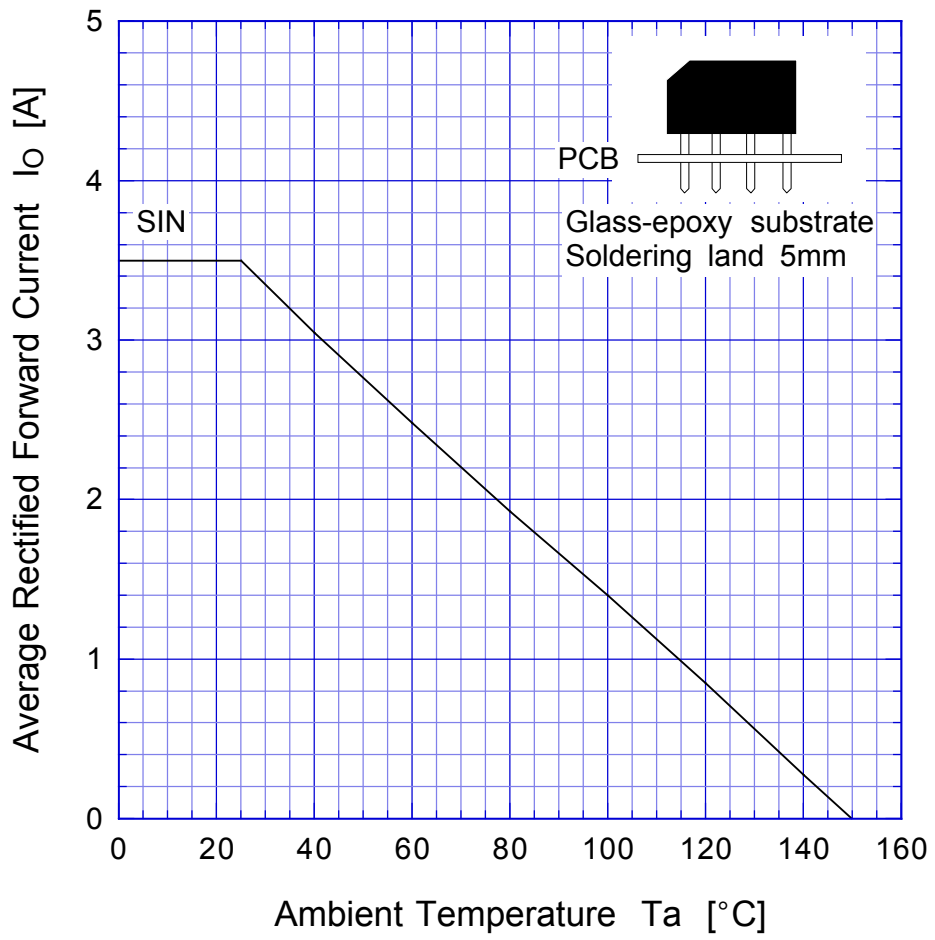
## Derating Curve



Sine wave  
R-load  
with heatsink

# D20XBx

# Derating Curve



Sine wave  
R-load  
Free in air

# D20XBx

## Peak Surge Forward Capability

