

# SHINDENGEN

## 3 Phase Bridge Diode

## Diode Module

# S15VT80

## 800V 15A

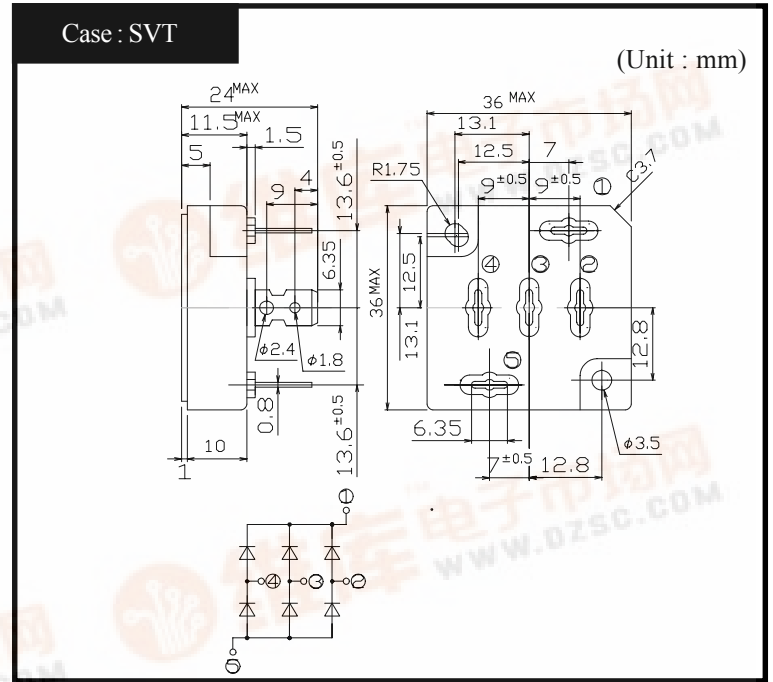
### FEATURES

- Dual In-Line Package
- Compact 3 phase bridge
- High IFSM
- Applicable to mount on glass-epoxy substrate (VTA type)

### APPLICATION

- Big Power Supply
- Air conditioner
- Factory Automation, Inverter

### OUTLINE DIMENSIONS



### RATINGS

- Absolute Maximum Ratings (If not specified  $T_c=25^\circ\text{C}$ )

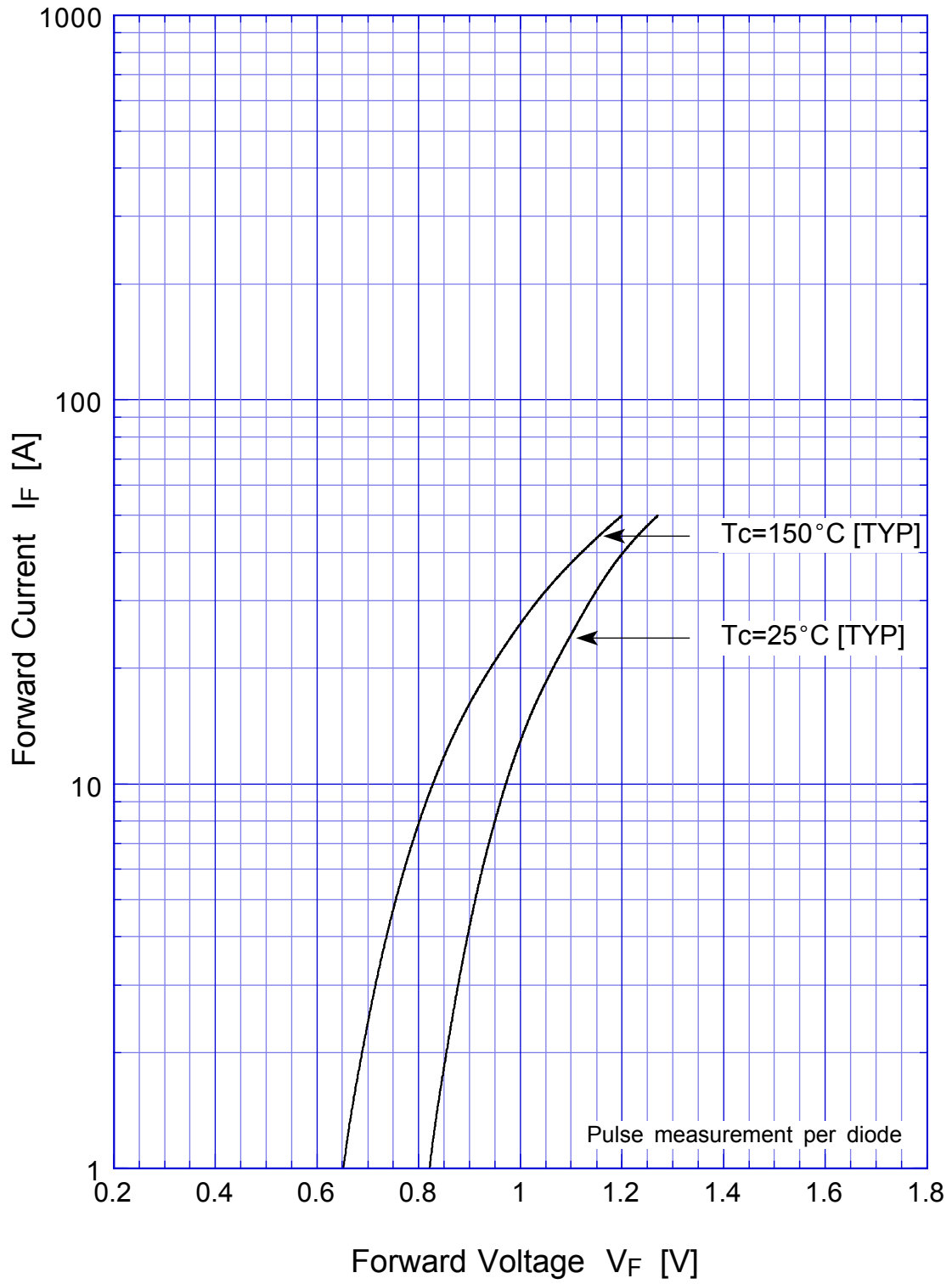
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	$T_{stg}$		-40~150	$^\circ\text{C}$
Operating Junction Temperature	$T_j$		150	$^\circ\text{C}$
Maximum Reverse Voltage	$V_{RM}$		800	V
Average Rectified Forward Current	$I_O$	50Hz sine wave, R-load, With heatsink, $T_c=132^\circ\text{C}$	15	A
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per diode, $T_j=25^\circ\text{C}$	200	A
Current Squared Time	$I^2t$	$1\text{ms} \leq t < 10\text{ms}$ $T_c=25^\circ\text{C}$	160	$\text{A}^2\text{s}$
Dielectric Strength	$V_{dis}$	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : $0.6\text{N}\cdot\text{m}$ )	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.1.05	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	Max.0.6	$^\circ\text{C}/\text{W}$

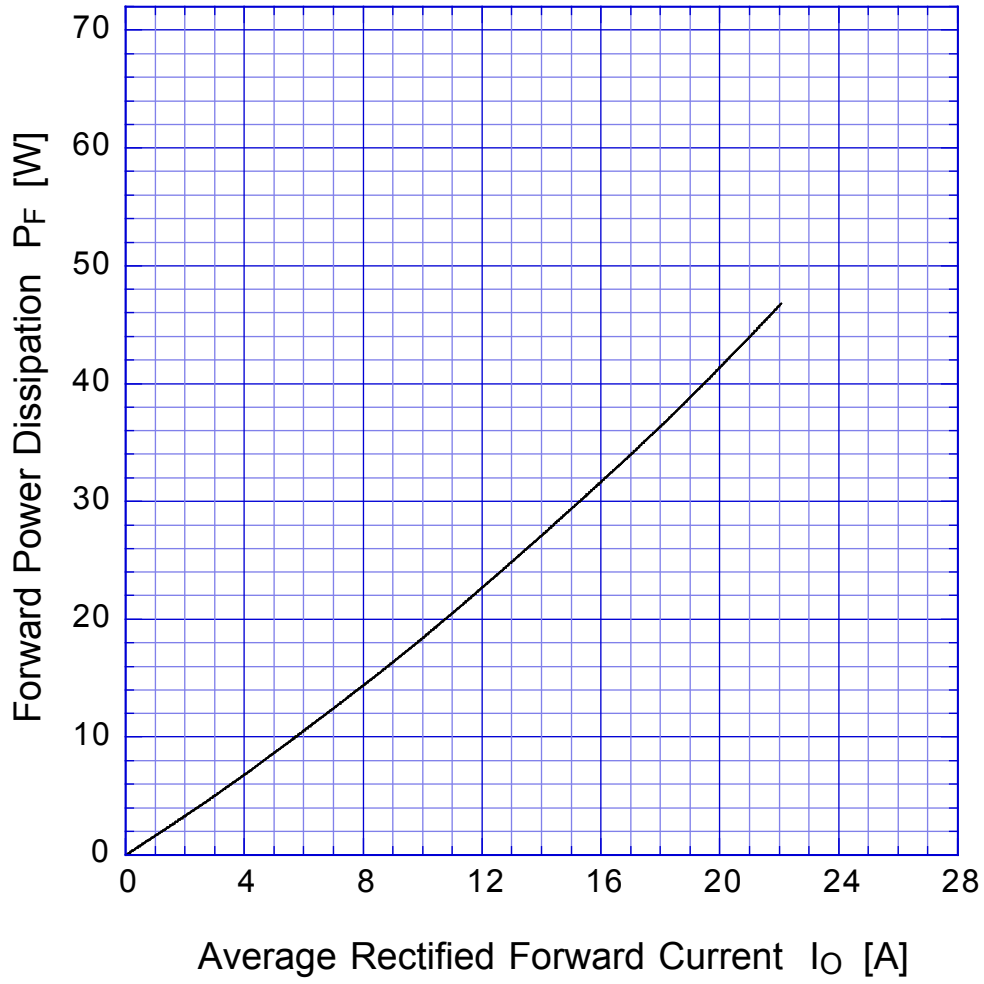
S15VTx

Forward Voltage



S15VTx

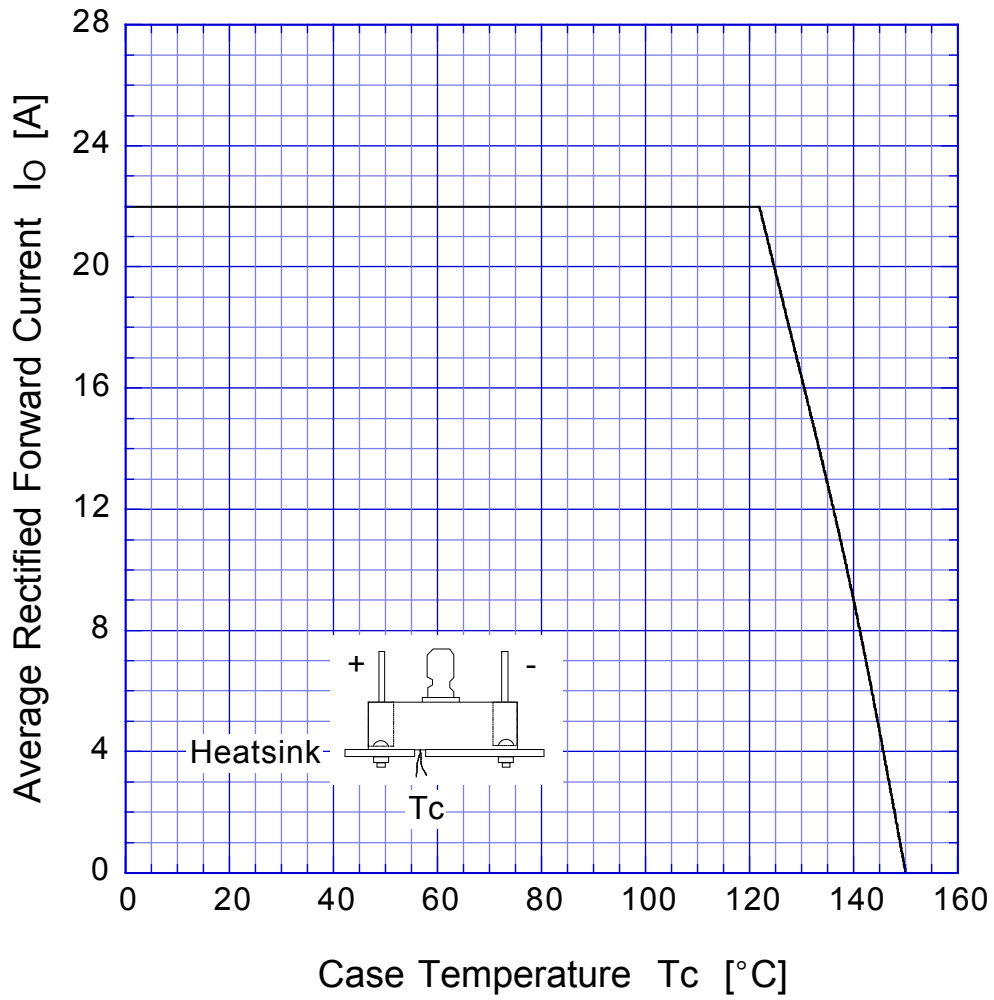
Forward Power Dissipation



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

S15VTx

Derating Curve



Sine wave  
R-load  
with heatsink

# S15VTx

## Peak Surge Forward Capability

