

# SHINDENGEN

## 3 Phase Bridge Diode

## Diode Module

# S20VTA80

## 800V 20A

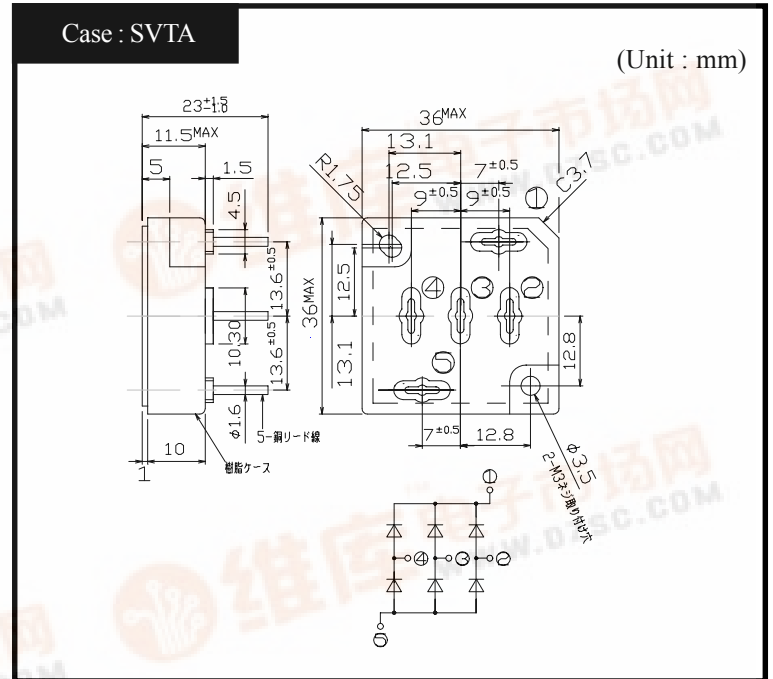
### FEATURES

- 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 Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		800	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, With heatsink, Tc=128°C	20	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per diode, Tj=25°C	300	A
Current Squared Time	I <sup>2</sup> t	1ms ≤ t < 10ms Tc=25°C	300	A <sup>2</sup> s
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : 0.6N·m)	0.8	N·m

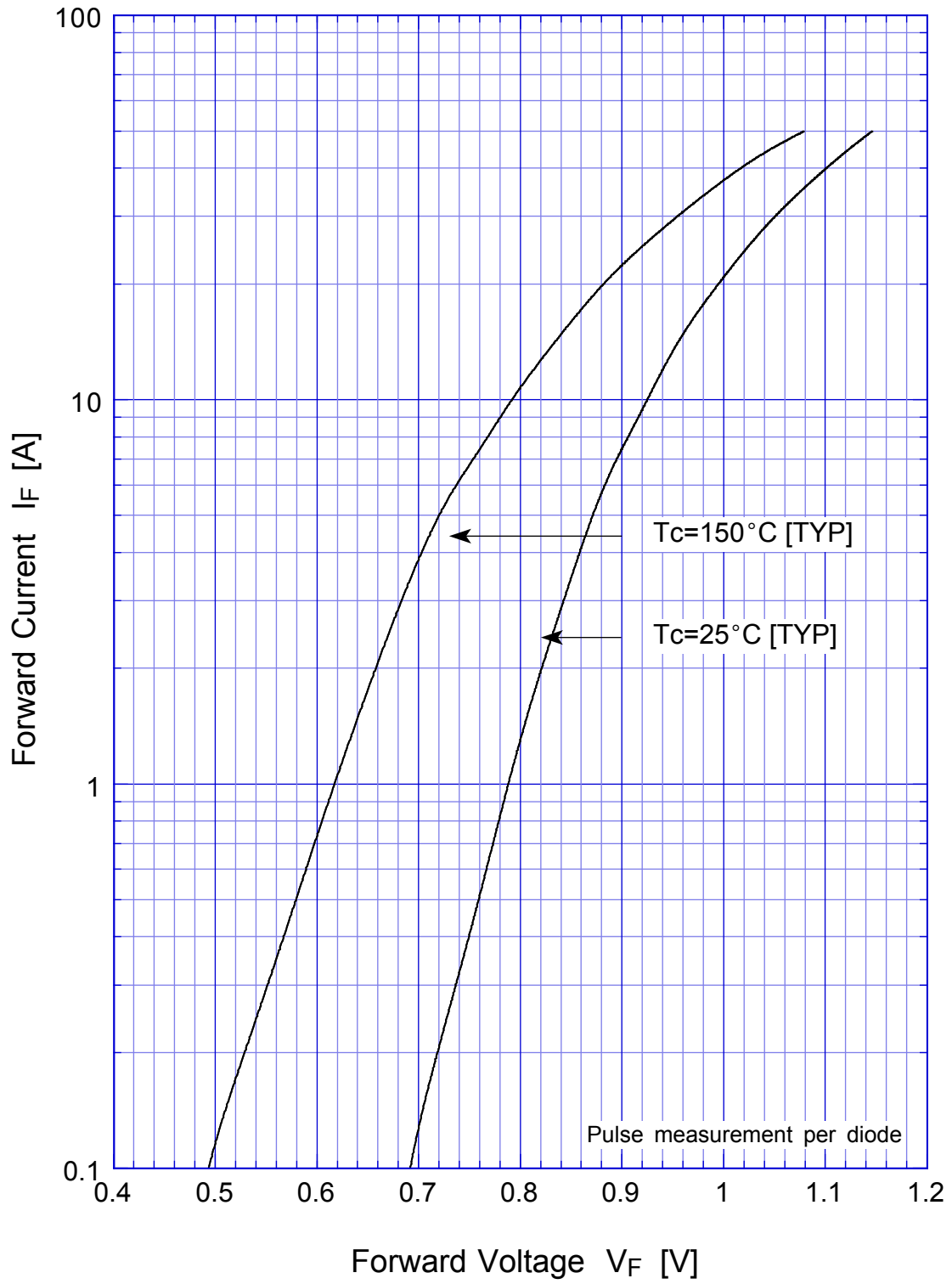
- Electrical Characteristics (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =7A, Pulse measurement, Rating of per diode	Max.1.05	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	Max.0.55	°C/W

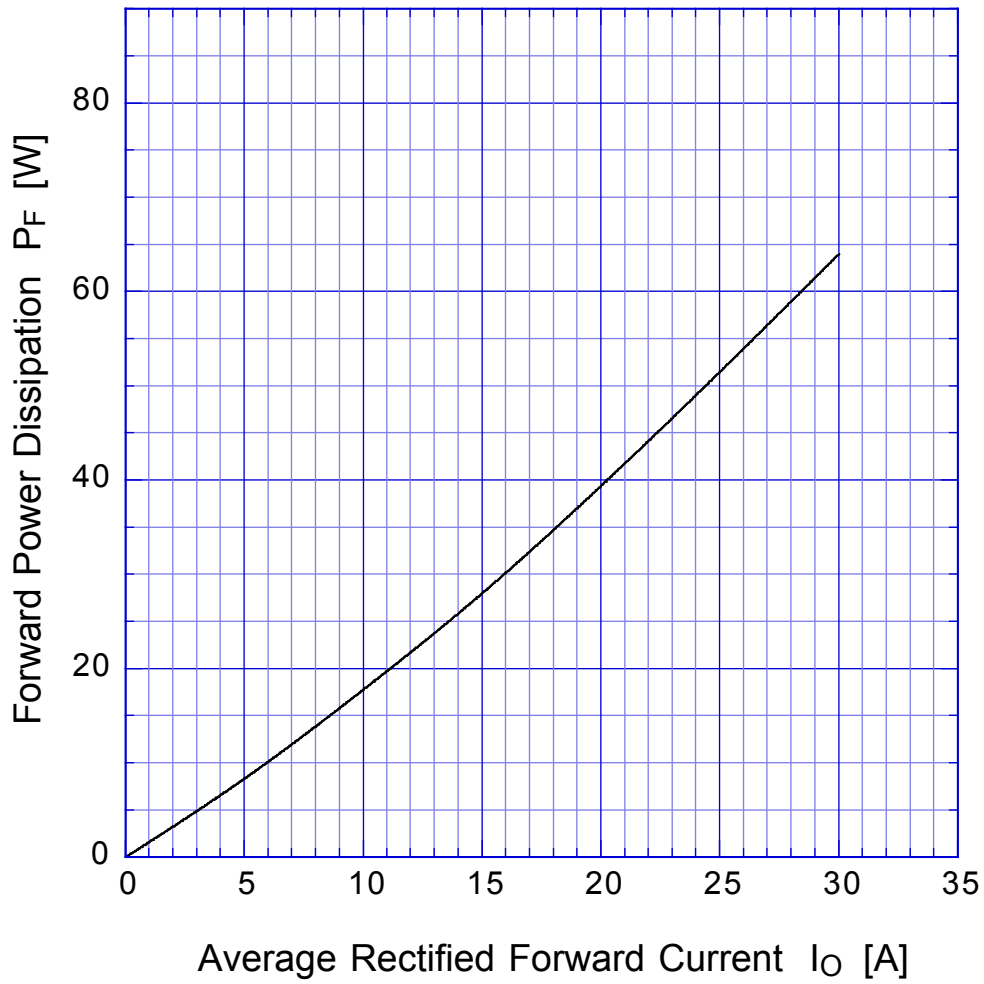


S20VTAx

Forward Voltage



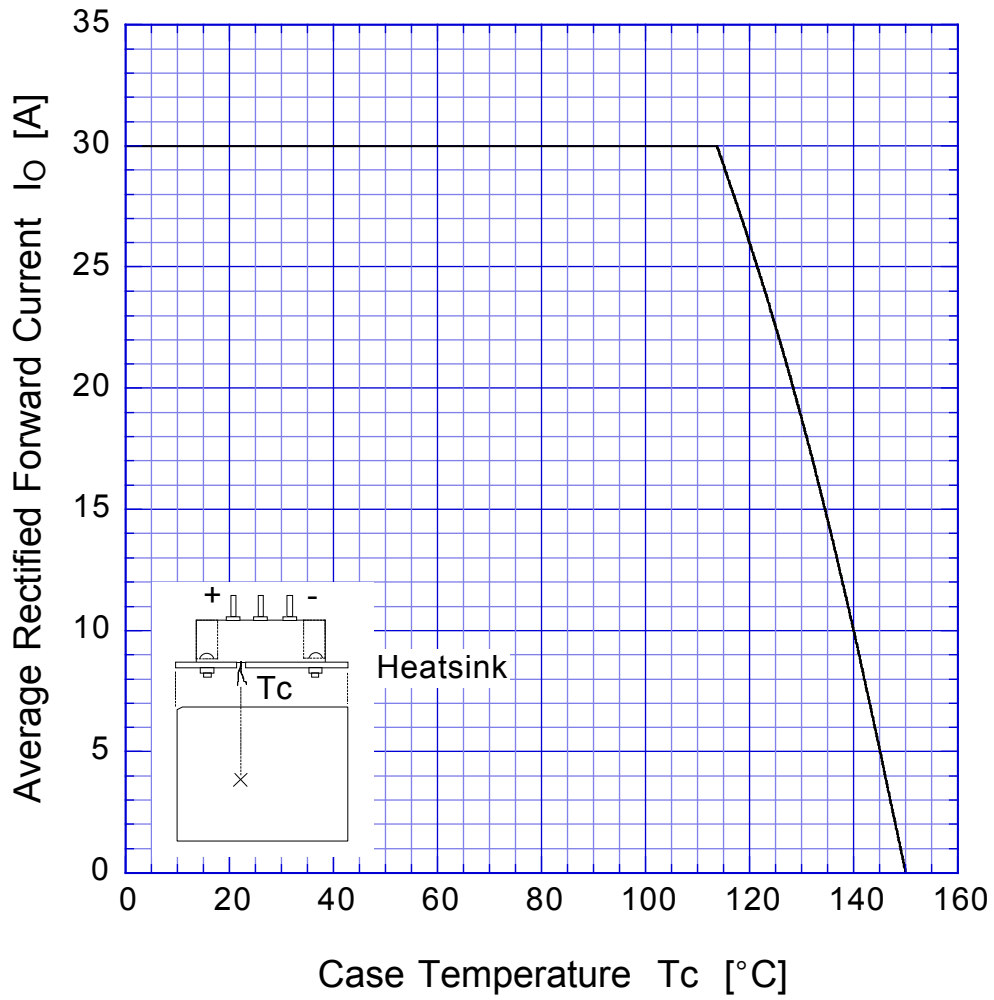
## S20VTAx Forward Power Dissipation



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

# S20VTAx

# Derating Curve



Sine wave  
R-load  
with heatsink

# S20VTax

## Peak Surge Forward Capability

