

# SHINDENGEN

## Diode Module

# S10VTA80

**800V 10A**

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

## RATINGS

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

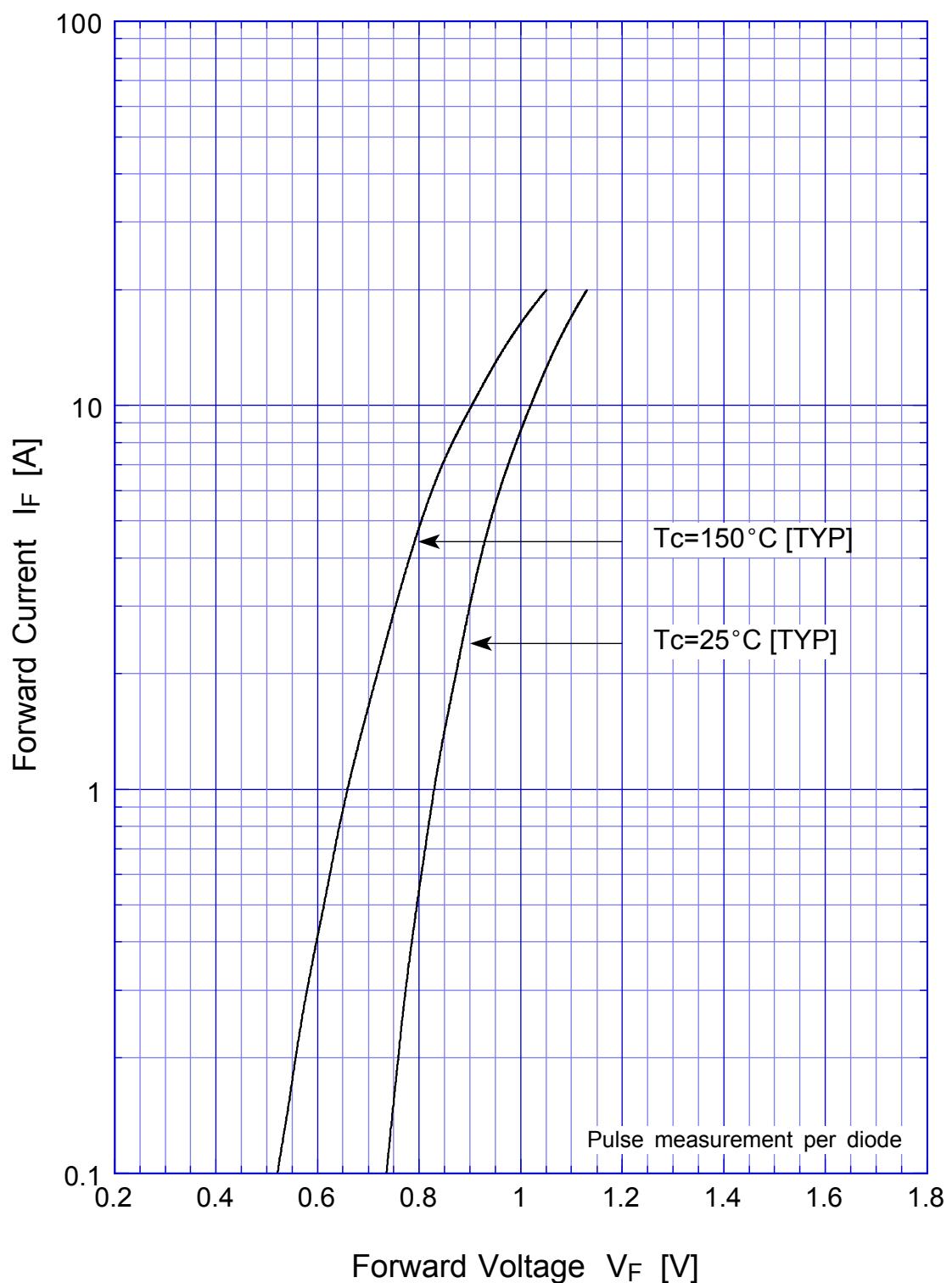
Absolute Maximum Ratings (If not Specified 10~25°C)		Conditions	Ratings	Unit
Item	Symbol			
Storage Temperature	Tstg		-40~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		800	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load With heatsink Tc=137°C	10	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per diode Tj=25°C	150	A
Current Squared Time	I <sup>2</sup> t	1ms≤t<10ms Tc=25°C	80	A <sup>2</sup> s
Dielectric Strength	V <sub>dis</sub>	Terminals to case, AC 1 minute	2	kV
Mounting Torque	T <sub>OR</sub>	(Recommended torque : 0.6N·m)	0.8	N·m

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

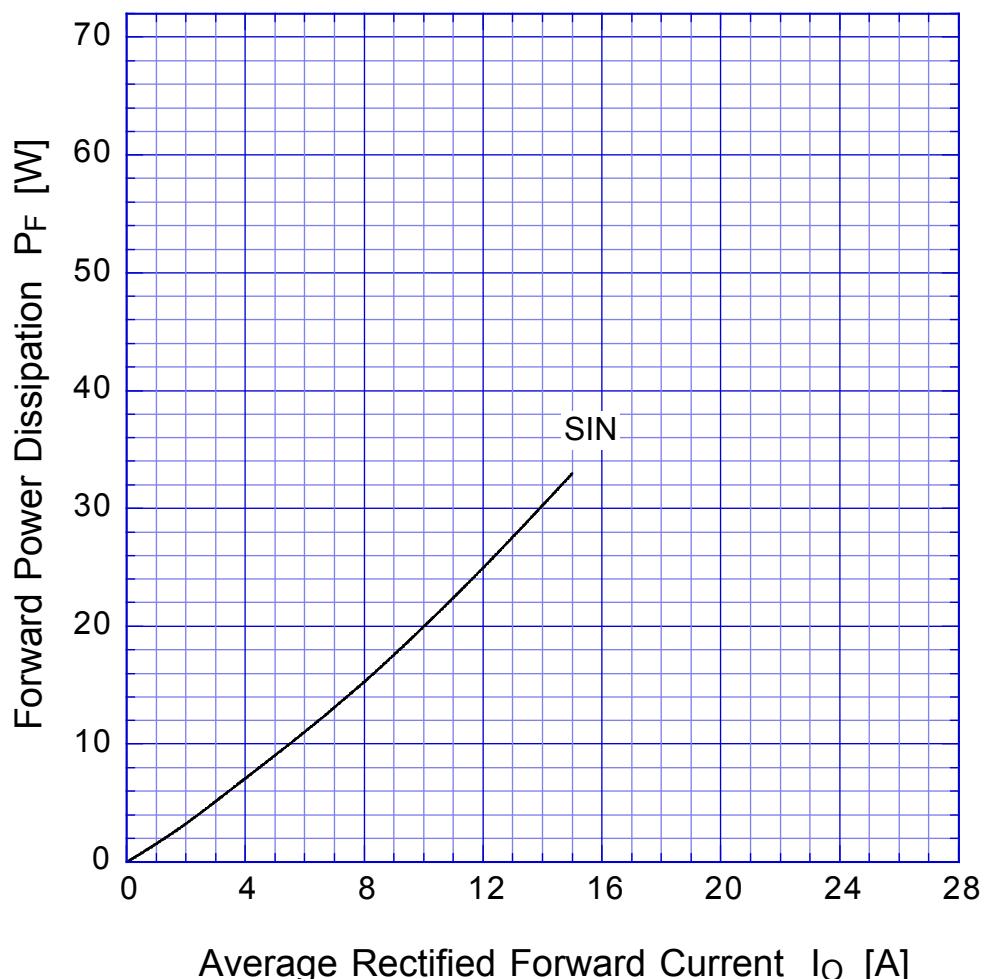
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=3.5A$ , Pulse measurement, Rating of per diode	Max.1.05	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement, Rating of per diode	Max.10	$\mu A$
Thermal Resistance	$\theta_{jc}$	junction to case	Max.0.65	$^{\circ}C/W$



**S10VTA80**      Forward Voltage



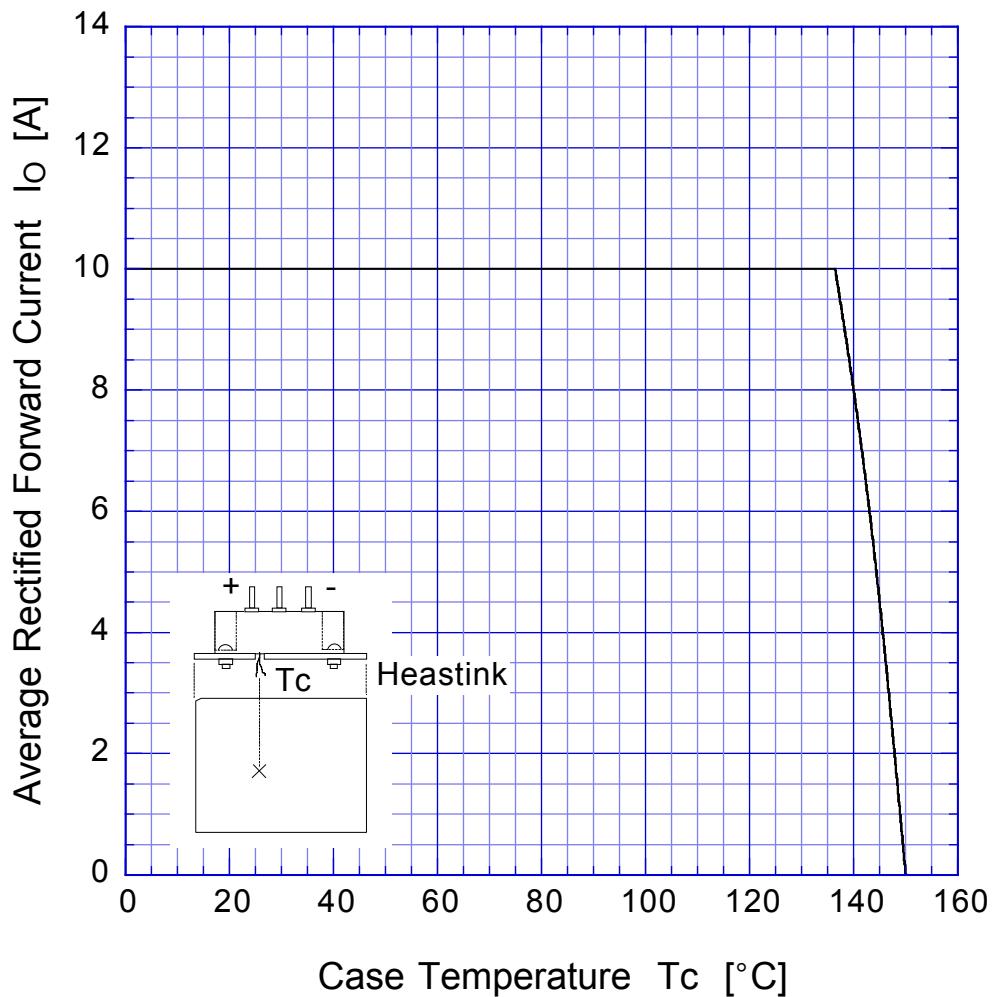
## S10VTA80 Forward Power Dissipation



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

# S10VTA80

## Derating Curve



Sine wave  
R-load  
with heatsink

## S10VTA80 Peak Surge Forward Capability

