

# SHINDENGEN

## General Purpose Rectifiers

## 3 Phase Bridge Modules

# S20VT60

## 600V 20A

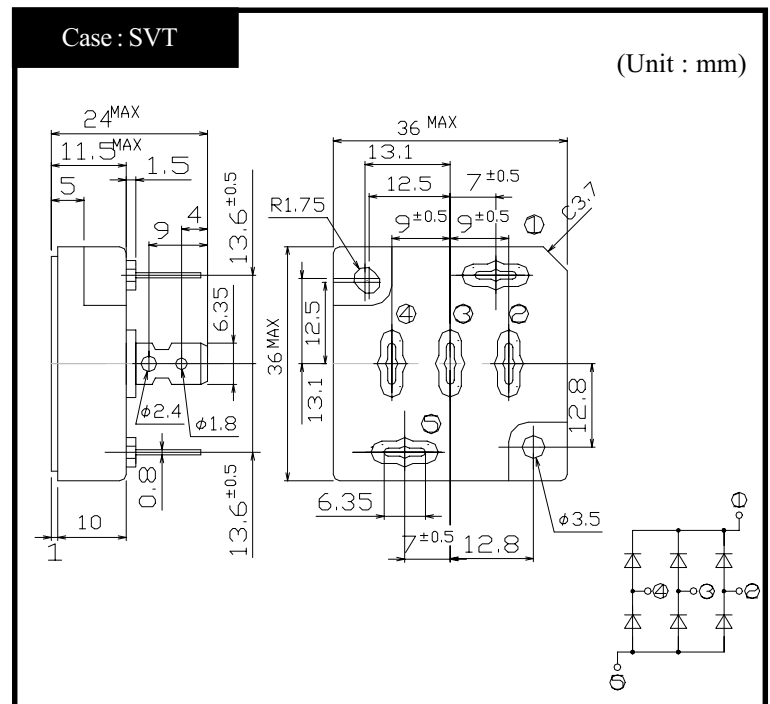
### FEATURES

- 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 T<sub>c</sub>=25°C)

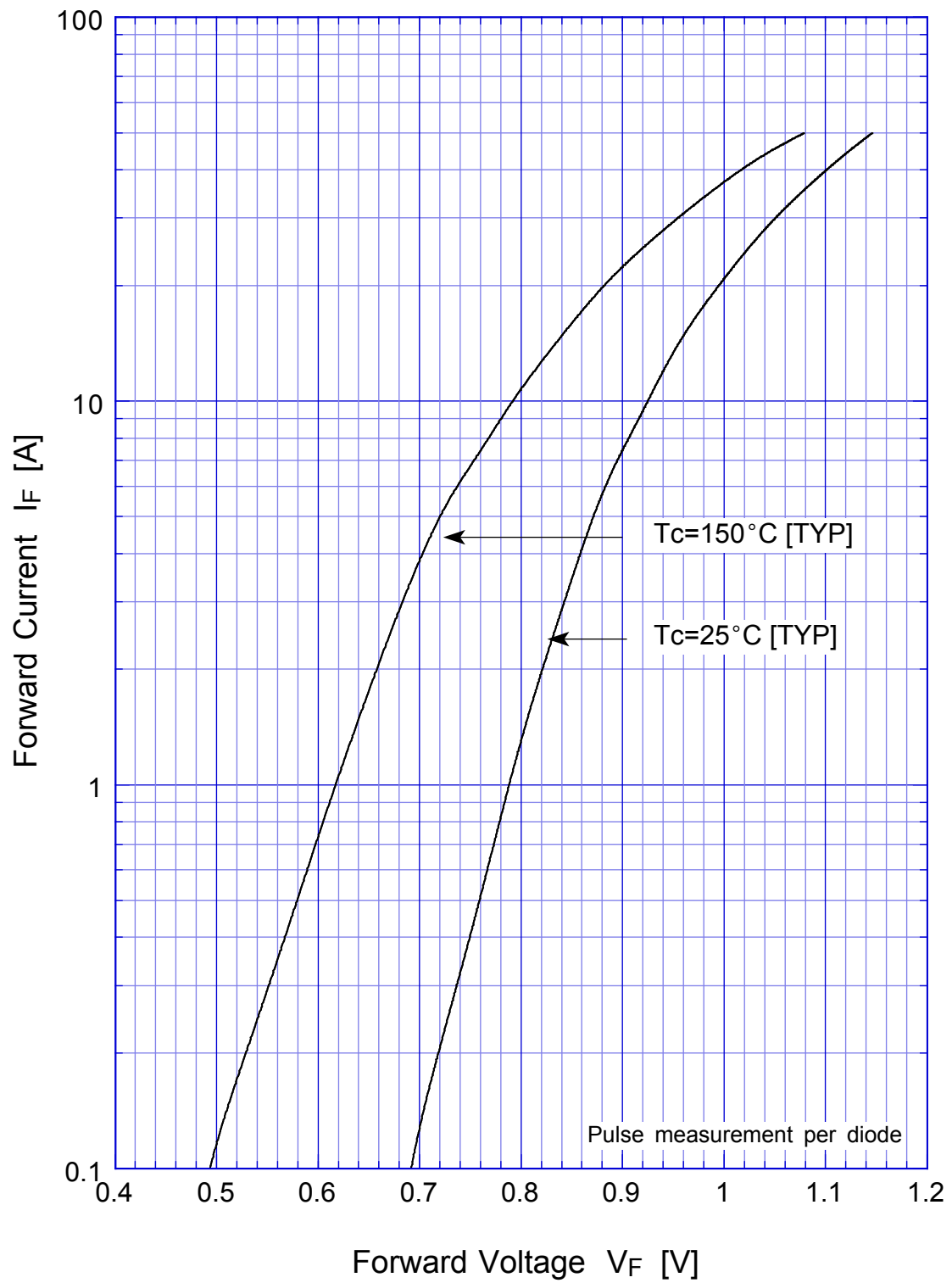
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40~150	°C
Operating Junction Temperature	T <sub>j</sub>		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		600	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, With heatsink, T <sub>c</sub> =128°C	20	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per arm, T <sub>j</sub> =25°C	300	A
Current Squared Time	I <sup>2</sup> t	1ms ≤ t < 10ms T <sub>j</sub> =25°C	300	A <sup>2</sup> s
Dielectric Strength	V <sub>dis</sub>	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 T<sub>c</sub>=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =7A, Pulse measurement, Rating of per arm	Max.1.05	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per arm	Max.10	μA
Thermal Resistance	θ <sub>jc</sub>	junction to case	Max.0.55	°C/W

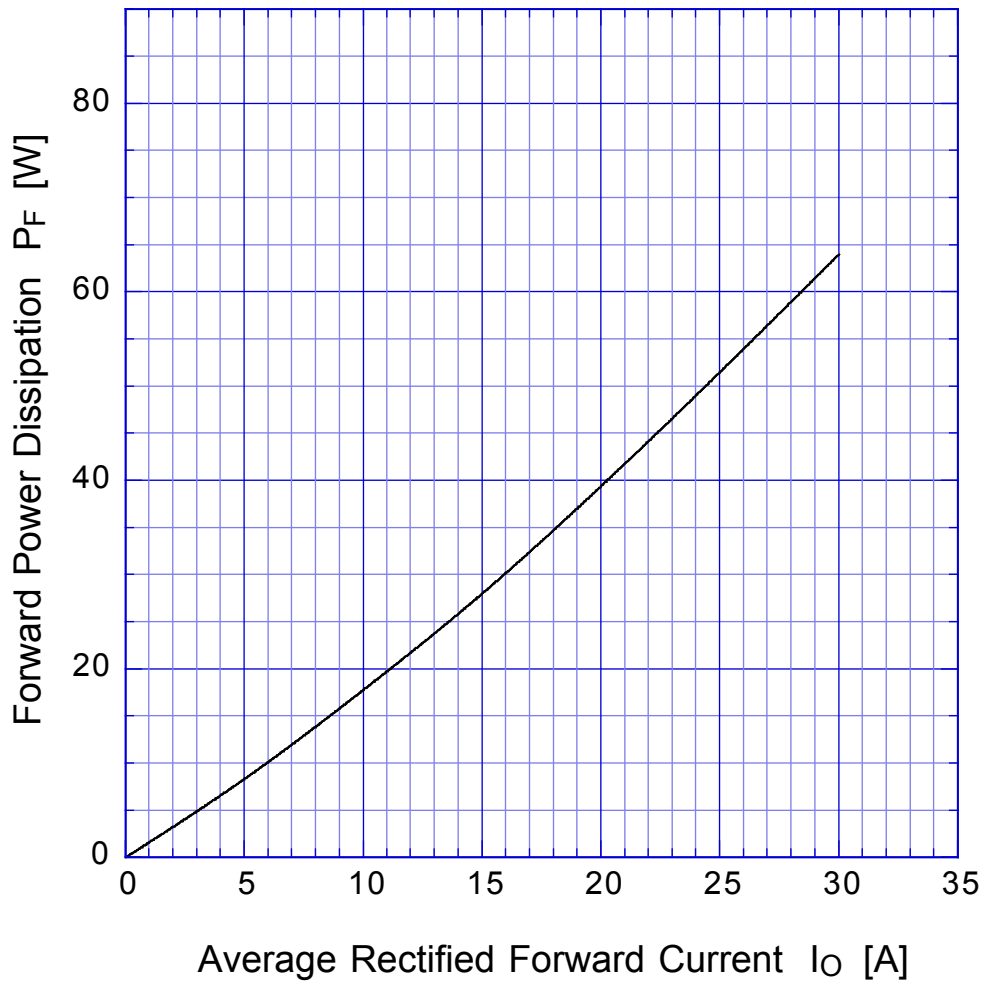
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Forward Voltage



S20VTx

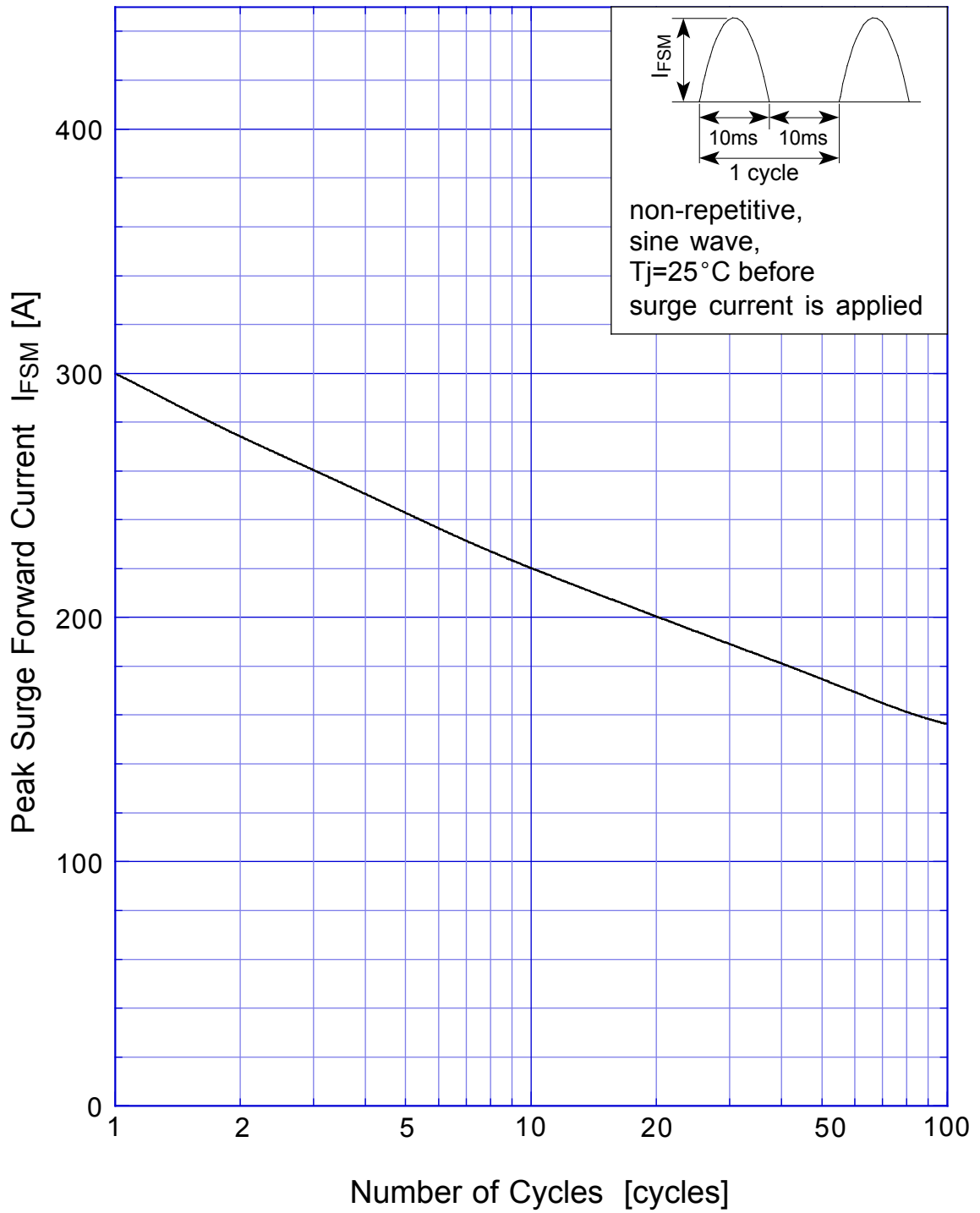
Forward Power Dissipation



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

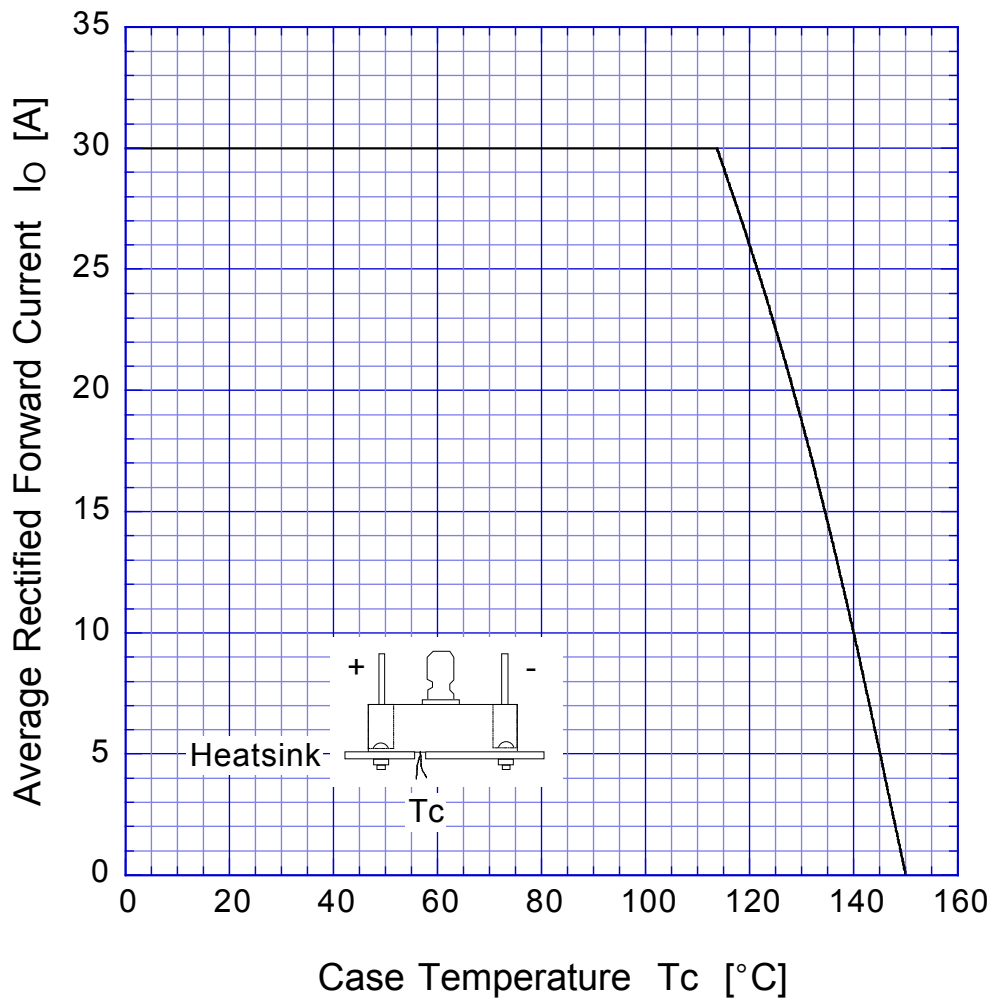
# S20VTx

## Peak Surge Forward Capability



S20VTx

Derating Curve



Sine wave  
R-load  
with heatsink