

SHINDENGEN

General Purpose Rectifiers

3 Phase Bridge Modules

S20VTA80

800V 20A

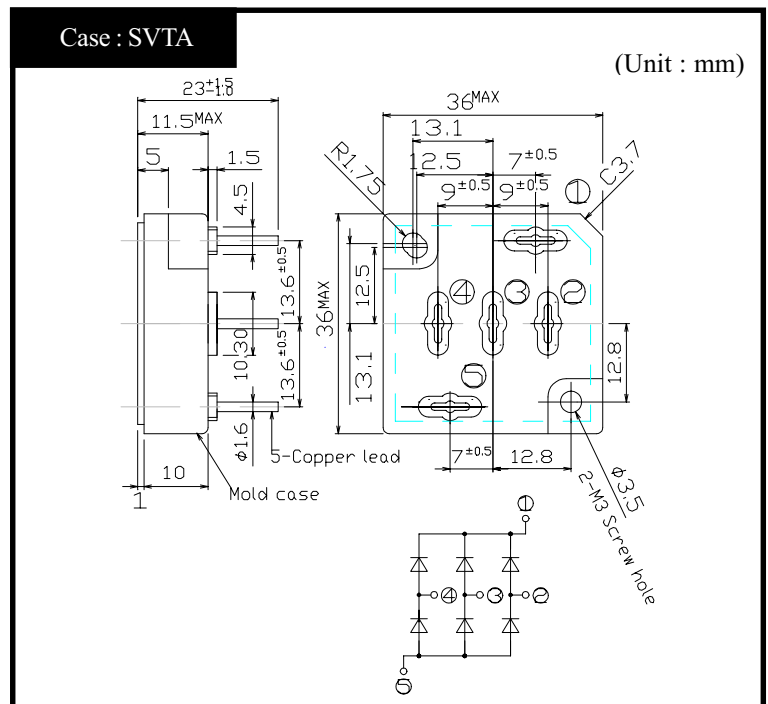
FEATURES

- 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 $T_c=25^\circ\text{C}$)

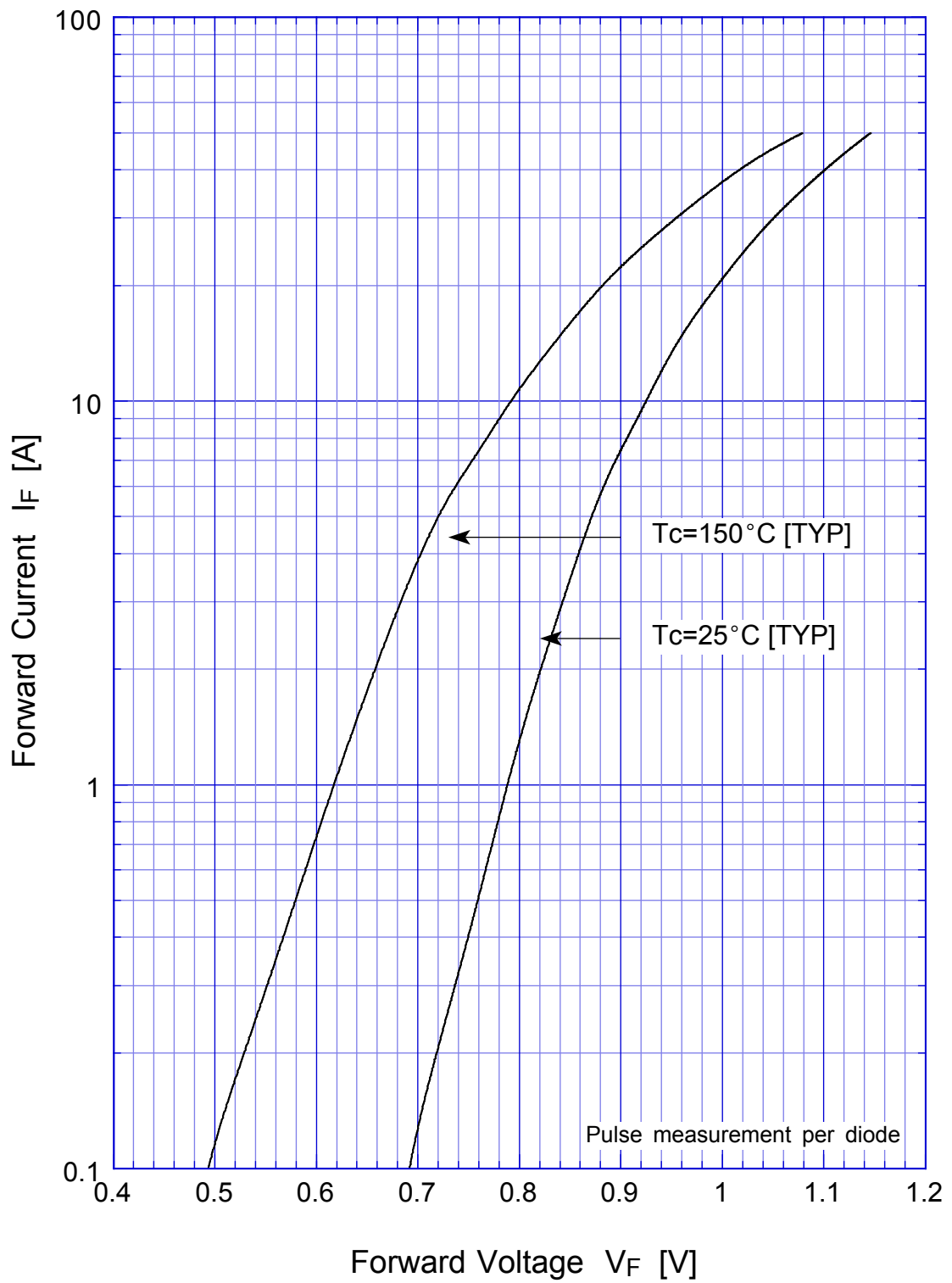
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-40~150	$^\circ\text{C}$
Operating Junction Temperature	T_j		150	$^\circ\text{C}$
Maximum Reverse Voltage	V_{RM}		800	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, With heatsink, $T_c=128^\circ\text{C}$	20	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per arm, $T_j=25^\circ\text{C}$	300	A
Current Squared Time	I^2t	$1\text{ms} \leq t < 10\text{ms}$ $T_j=25^\circ\text{C}$	300	A^2s
Dielectric Strength	V_{dis}	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 $T_c=25^\circ\text{C}$)

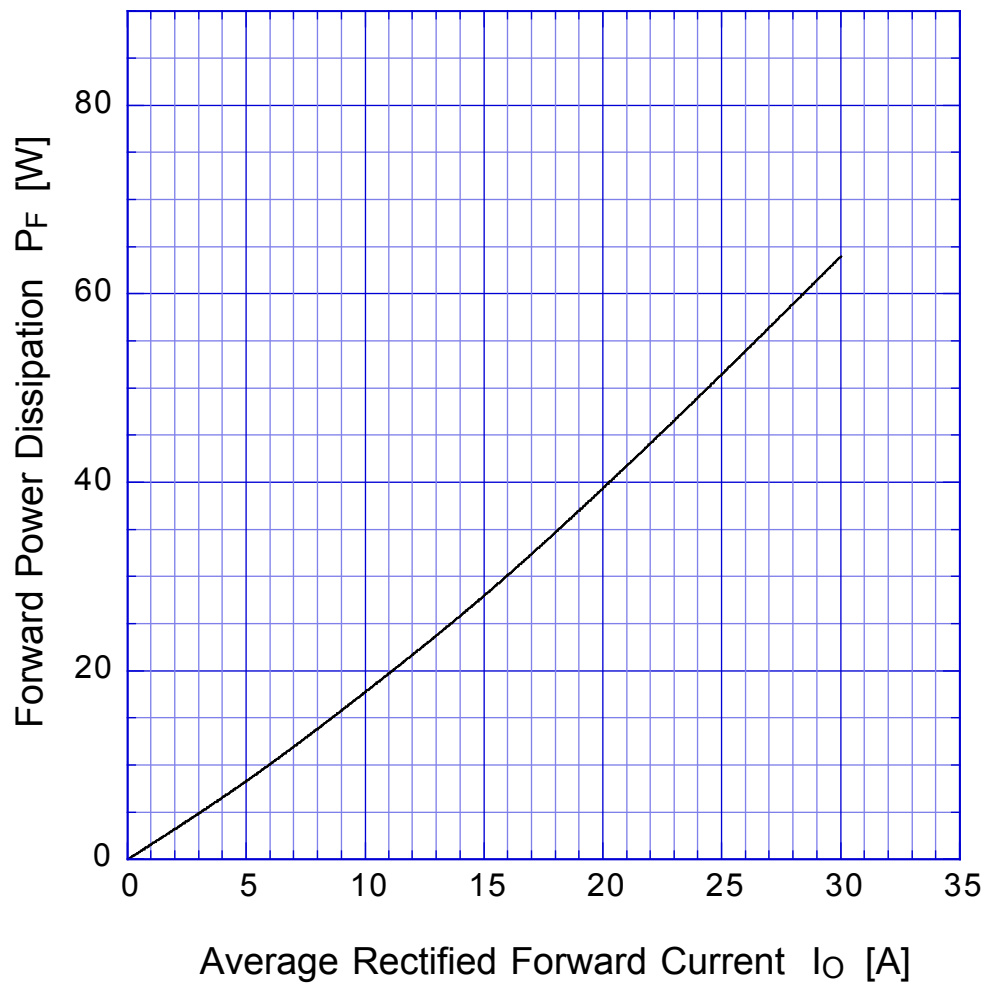
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=7\text{A}$, Pulse measurement, Rating of per arm	Max.1.05	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per arm	Max.10	μA
Thermal Resistance	θ_{jc}	junction to case	Max.0.55	$^\circ\text{C/W}$

S20VTAx

Forward Voltage



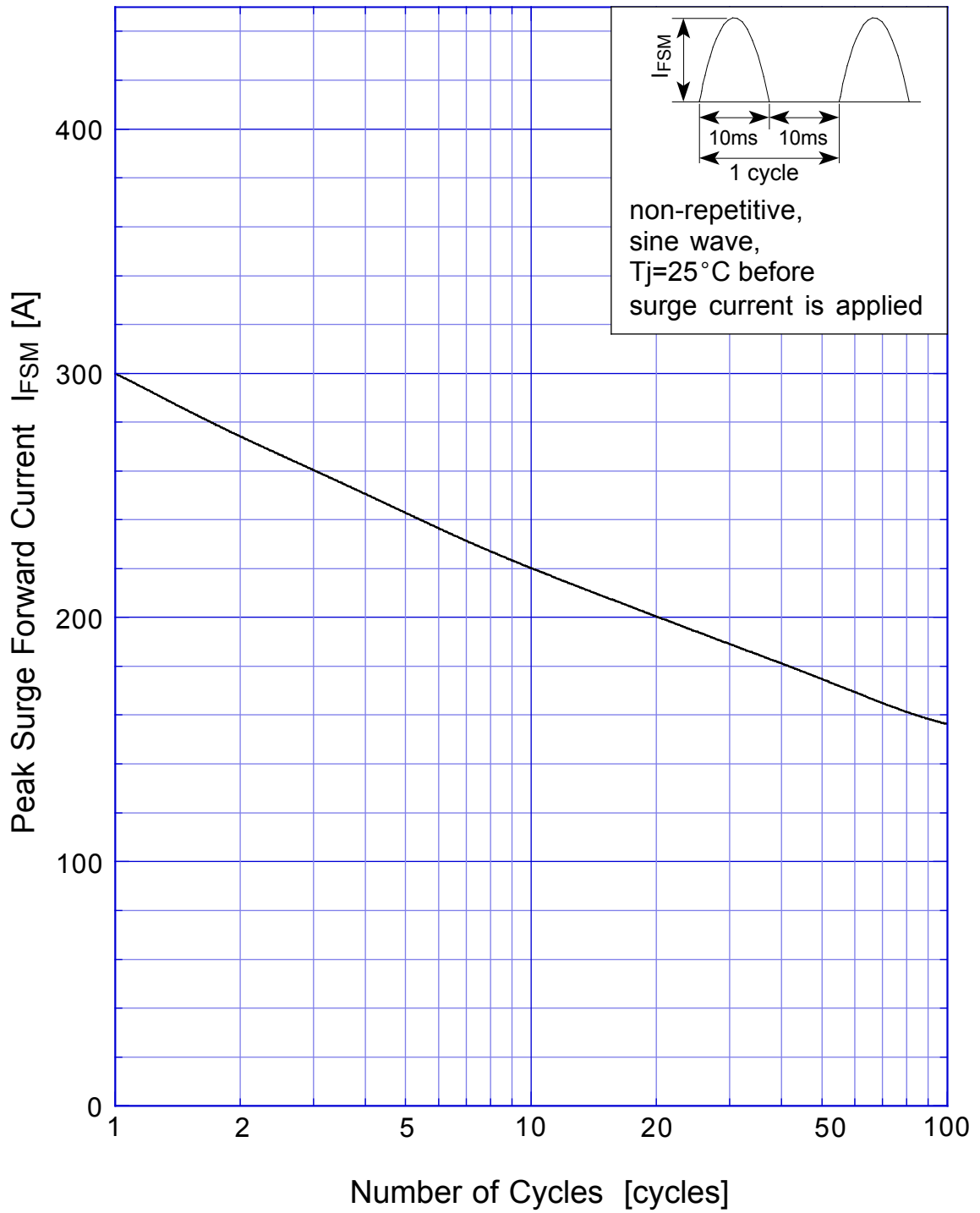
S20VTAx Forward Power Dissipation



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

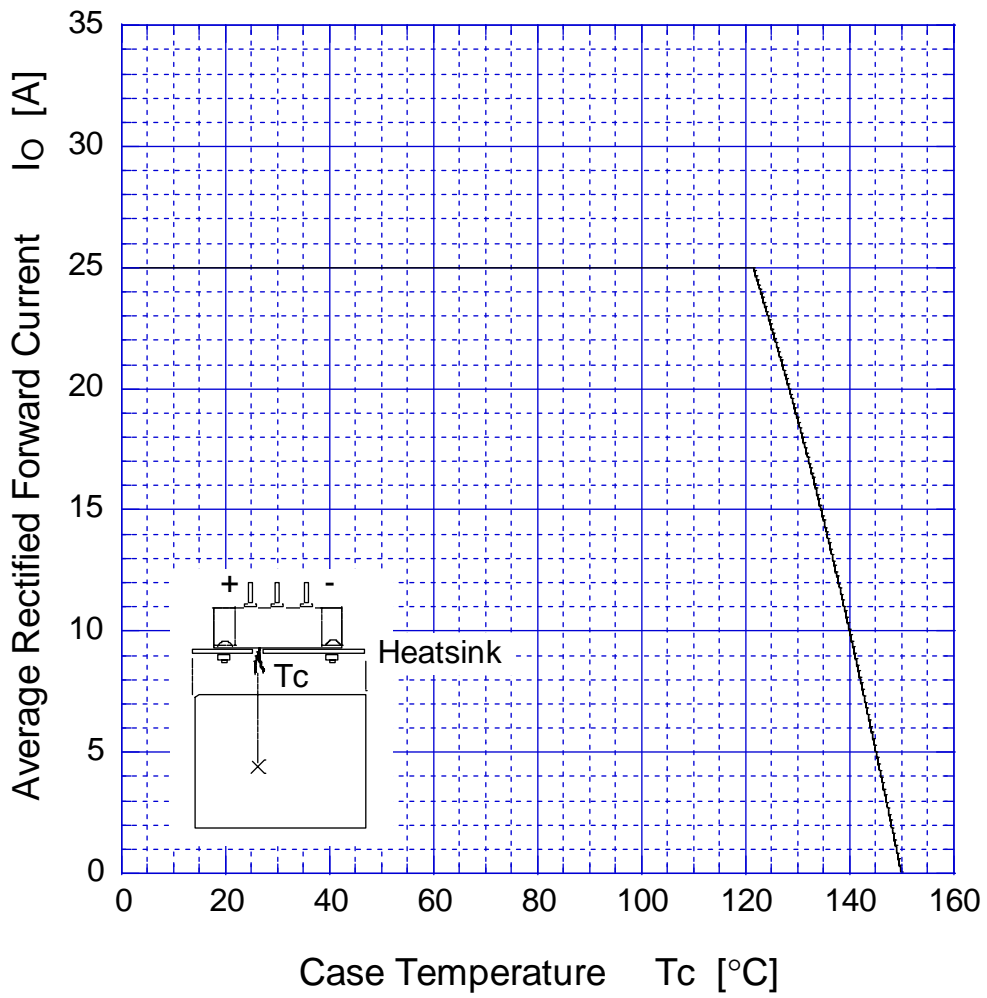
S20VTAx

Peak Surge Forward Capability



S20VTA80

Derating Curve



sine wave
R-load
with heatsink