

SHINDENGEN

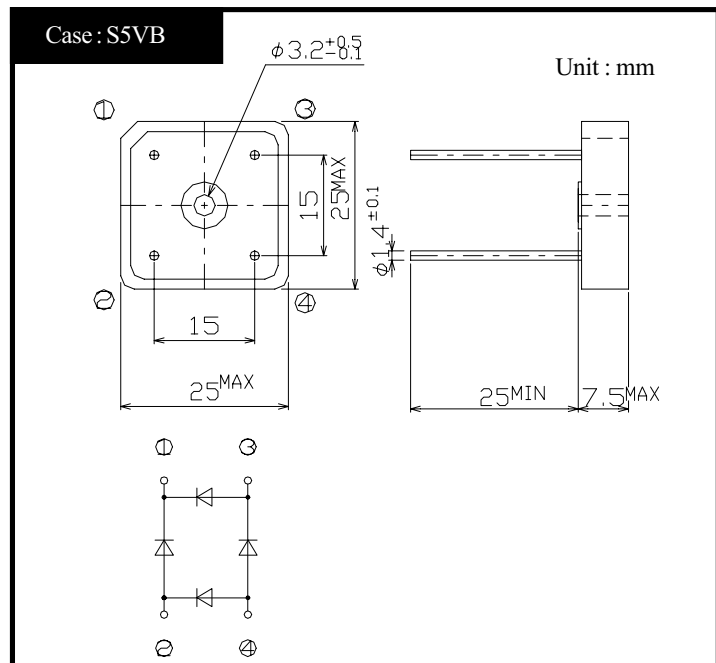
General Purpose Rectifiers

Square In-line Package

S5VB20

200V 6A

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings

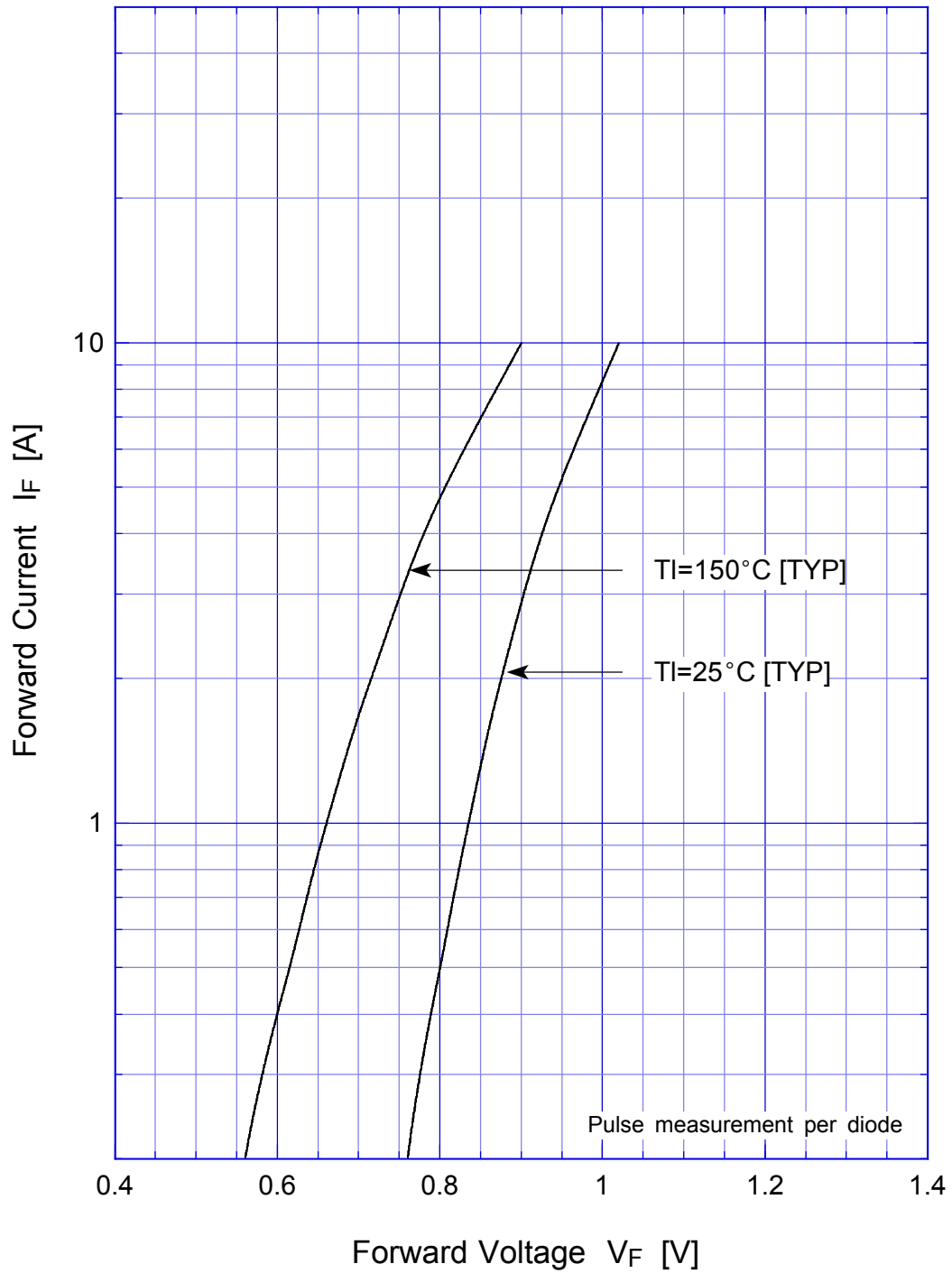
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-40~150	°C
Operating Junction Temperature	T_j		150	°C
Maximum Reverse Voltage	V_{RM}		200	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, $T_a=40^\circ\text{C}$ With heatsink $\theta_{fa}=6.4^\circ\text{C/W}$	6	A
		50Hz sine wave, R-load, $T_a=40^\circ\text{C}$ Without heatsink	3.5	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, $T_j=25^\circ\text{C}$	200	A
Current Squared Time	I^2t	$2\text{ms} \leq t < 10\text{ms}$ $T_j=25^\circ\text{C}$	150	A^2s
Mounting Torque	TOR	(Recommended torque : $0.5\text{N}\cdot\text{m}$)	0.8	$\text{N}\cdot\text{m}$

● Electrical Characteristics ($T_l=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=3\text{A}$, 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	μA
Thermal Resistance	θ_{jl}	junction to lead	Max.3	°C/W

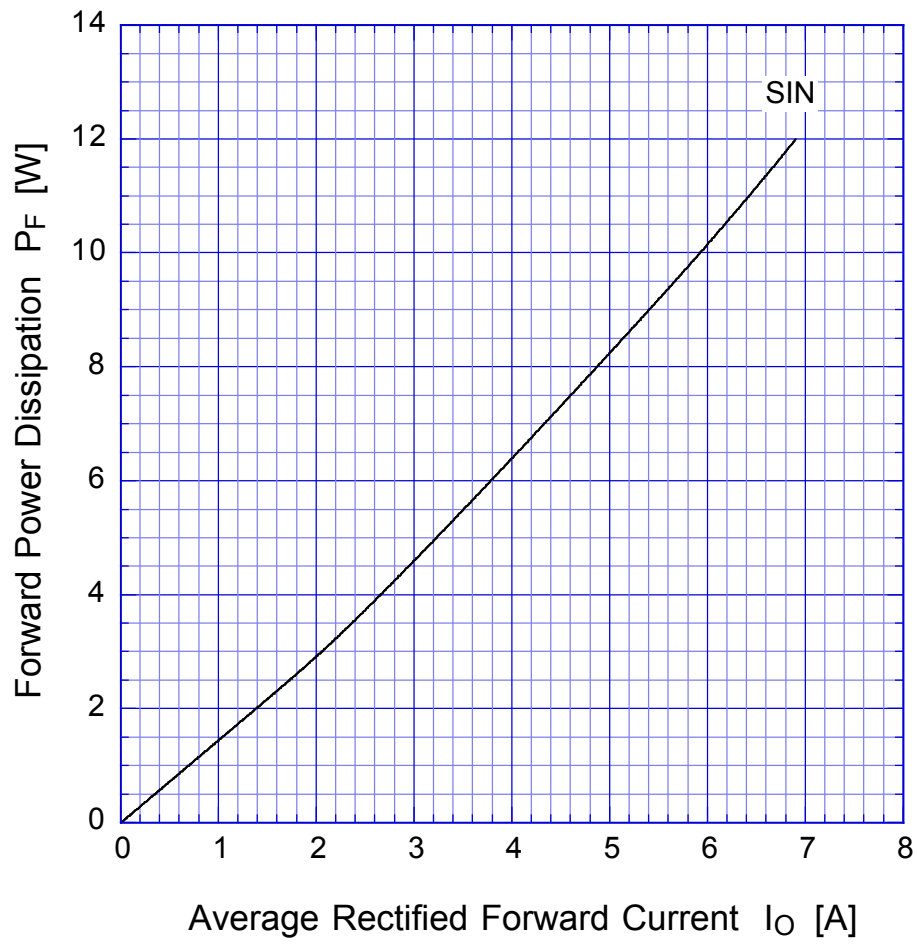
S5VBx

Forward Voltage



S5VBx

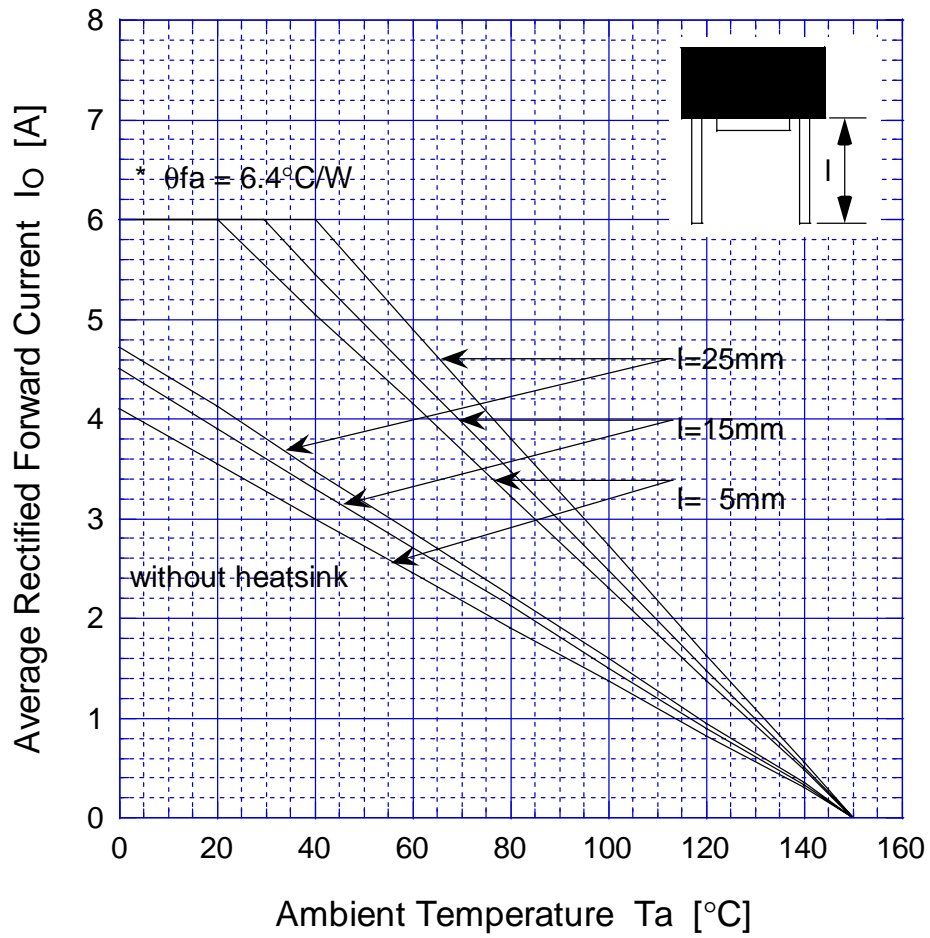
Forward Power Dissipation



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

S5VBx

Derating Curve



Sine wave

R-load

Free in air

* with thermal compound, TOR=0.5N-m

S5VBx

Peak Surge Forward Capability

