SHINDENGEN

Bridge Diode

Square In-line Package

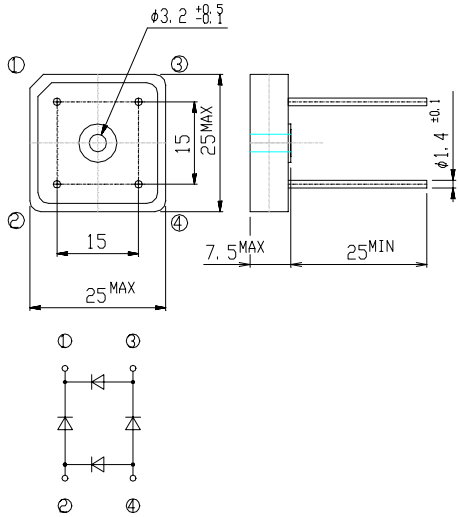
S5VB20

200V 6A

OUTLINE DIMENSIONS

Case : S5VB

Unit : mm



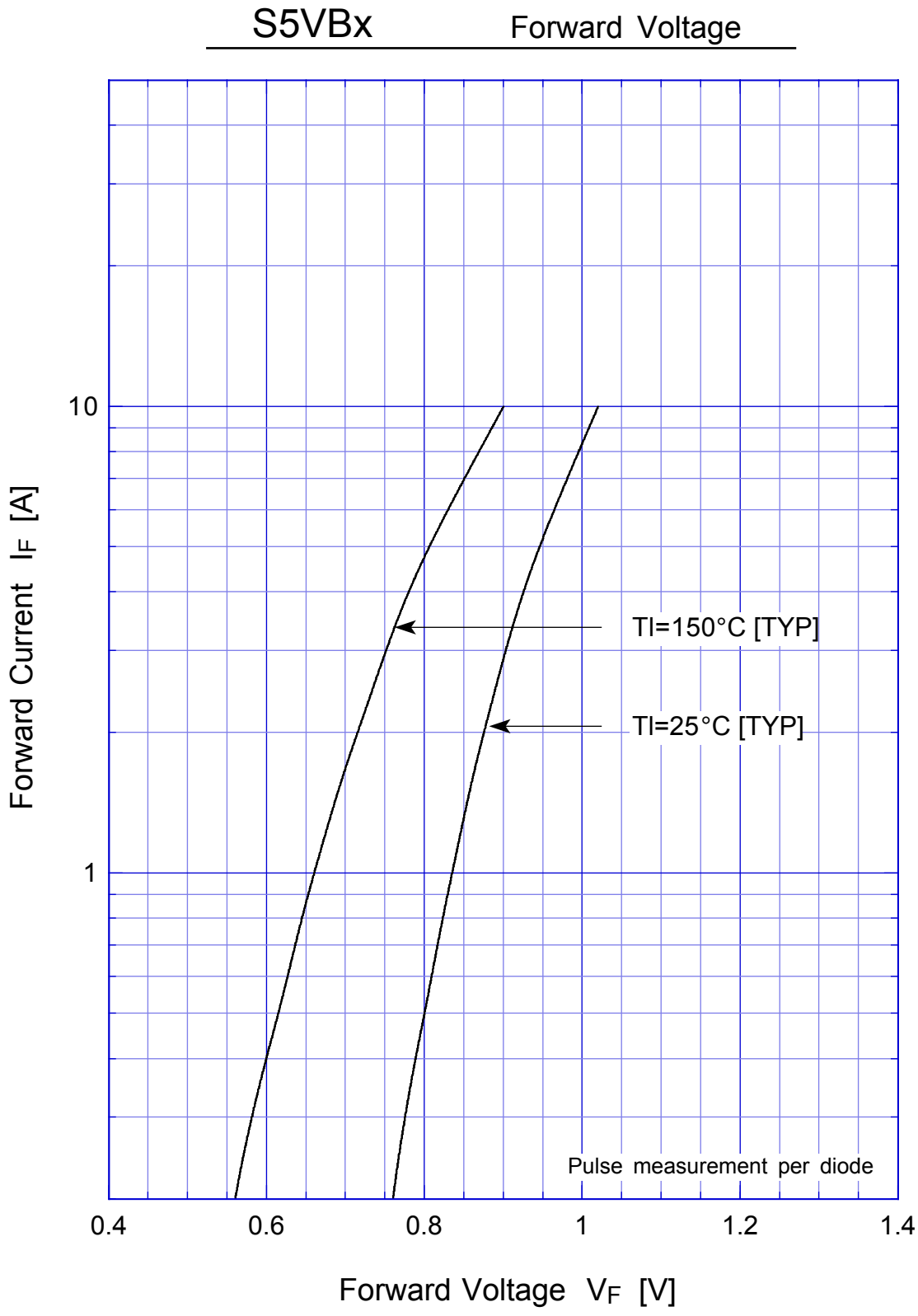
RATINGS

● Absolute Maximum Ratings

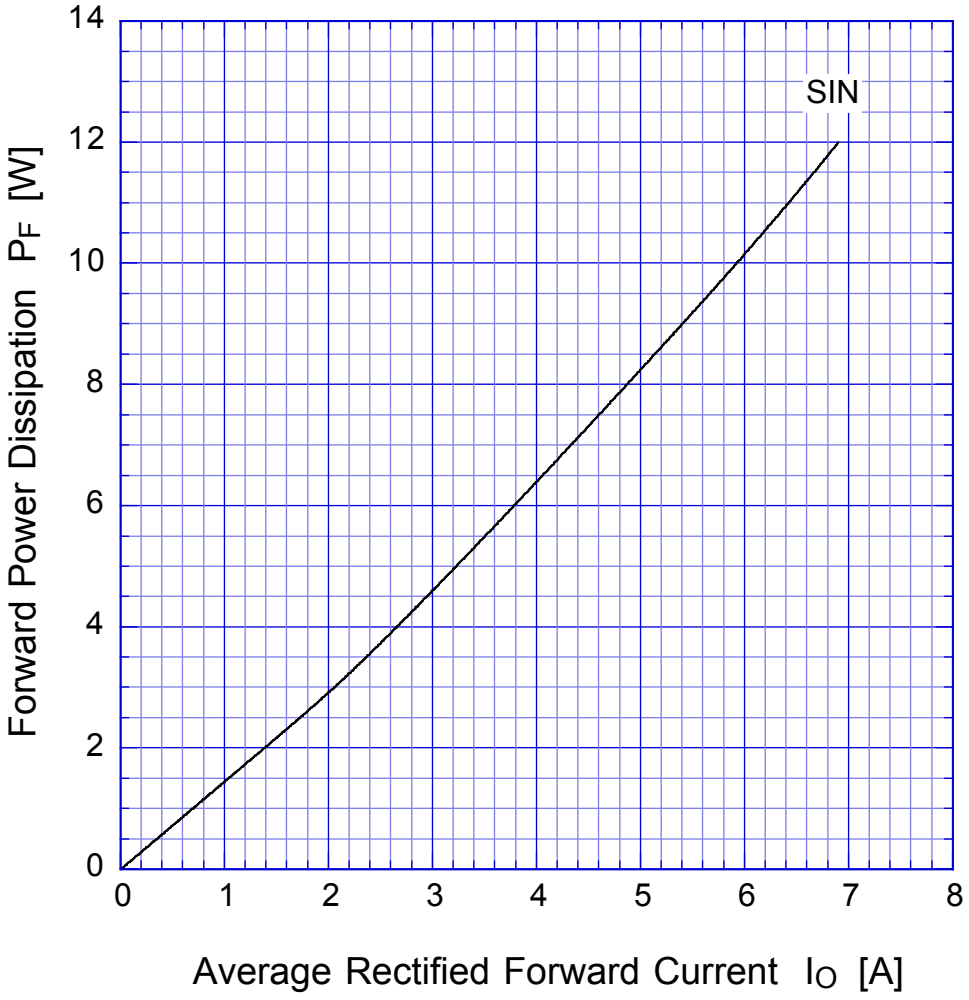
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		200	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Ta=40℃ With heatsink θfa=6.4℃/W	6	A
		50Hz sine wave, R-load, Ta=40℃ Without heatsink	3.5	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Tj=25℃	200	A
Current Squared Time	I^2t	2ms≦t＜10ms Tc=25℃	150	A^2s
Mounting Torque	TOR	(Recommended torque : 0.5N･m)	0.8	N･m

● Electrical Characteristics (Tl=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	IF=3A, 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	θjl	junction to lead	Max.3	℃/W

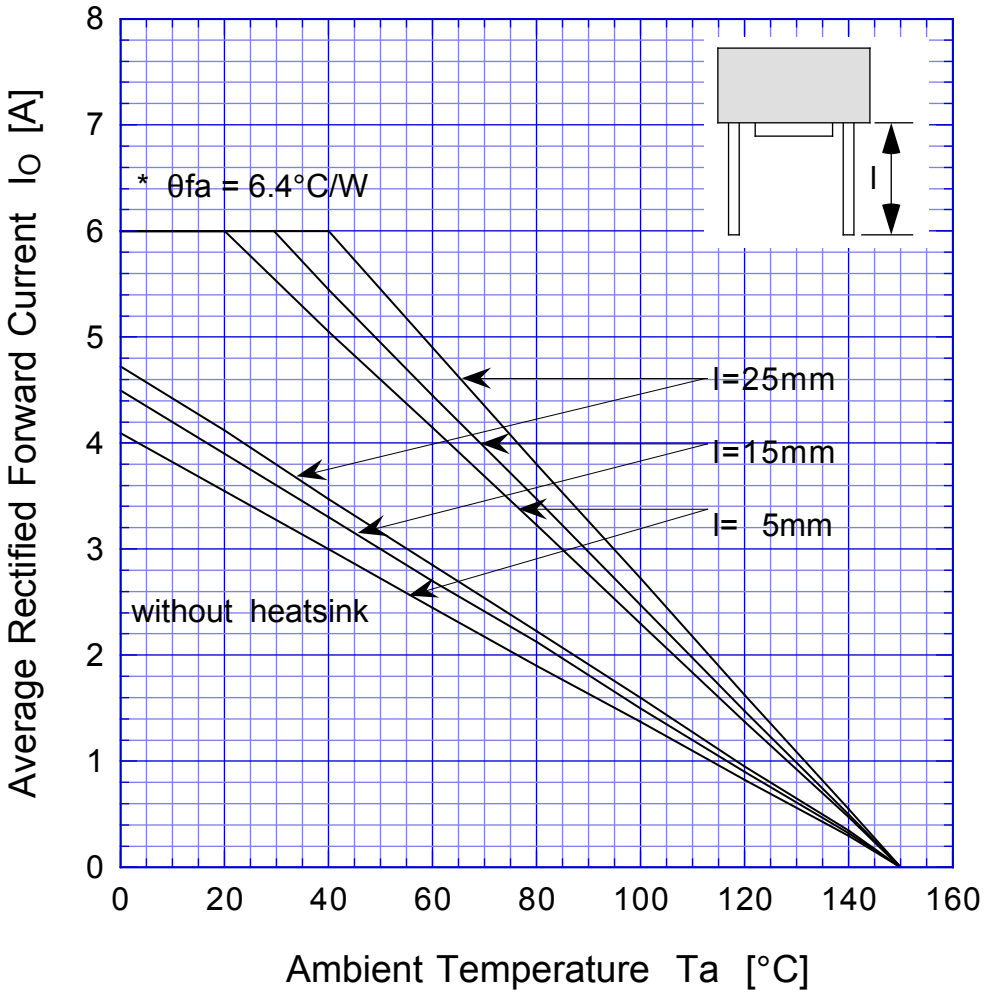

S5VBx
Forward Voltage
10
1
Forward Current IF [A]
TI=150°C [TYP]
TI=25°C [TYP]
Pulse measurement per diode
0.4
0.6
0.8
1
1.2
1.4
Forward Voltage VF [V]

S5VBx Forward Power Dissipation

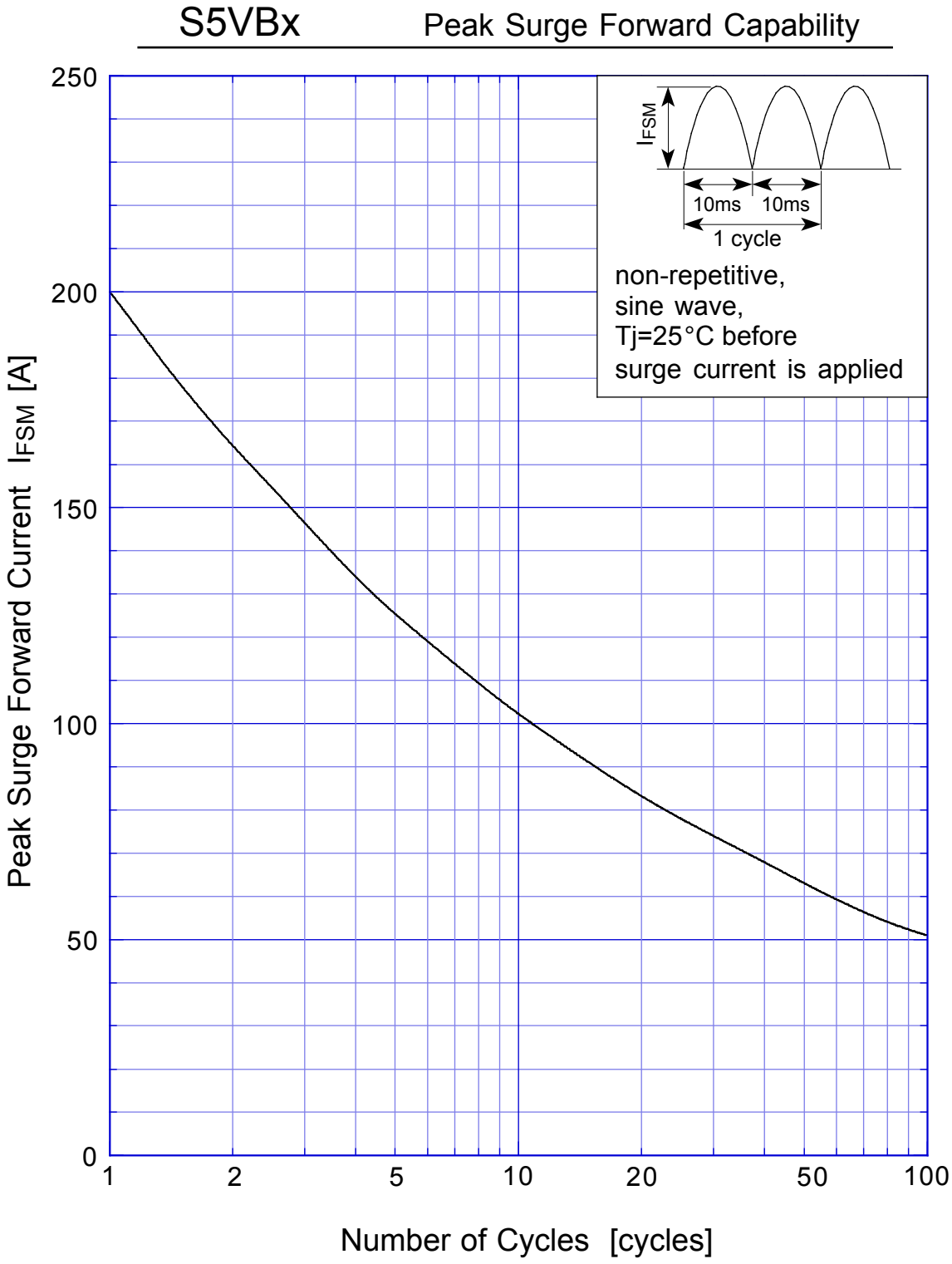


Tj = 150°C
Sine wave

S5VBx Derating Curve



Sine wave
R-load
Free in air
* with thermal compound, TOR=5kg-cm


S5VBx
Peak Surge Forward Capability
250
200
150
100
50
0
1
2
5
10
20
50
100
Peak Surge Forward Current IFSM [A]
Number of Cycles [cycles]
IFSM
10ms
10ms
1 cycle
non-repetitive,
sine wave,
Tj=25°C before
surge current is applied