SHINDENGEN

General Purpose Rectifiers

DIL Bridges

S1YB20

200V 0.4A

FEATURES

- Small Dual In-Line(:DIL) Package
- High reliability with superior moisture resistance
- Applicable to Automatic Insertion

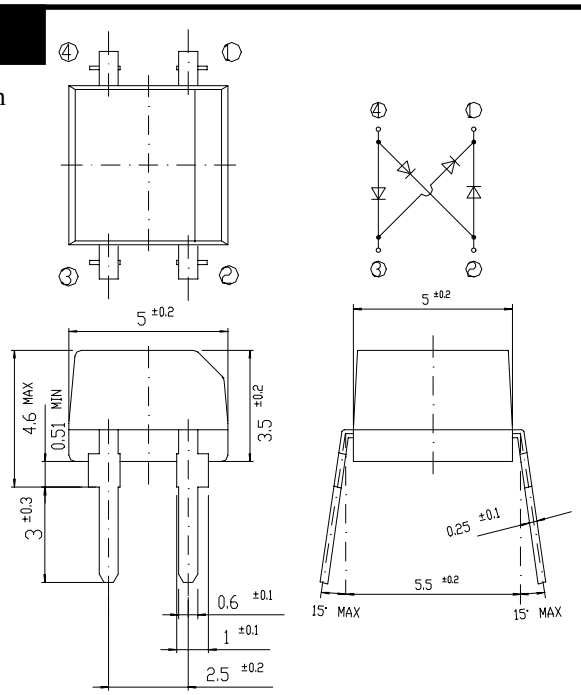
APPLICATION

- Switching power supply
- Home Appliances, Office Equipment
- Telecommunication, Factory Automation

OUTLINE DIMENSIONS

Case : 1Y

Unit : mm



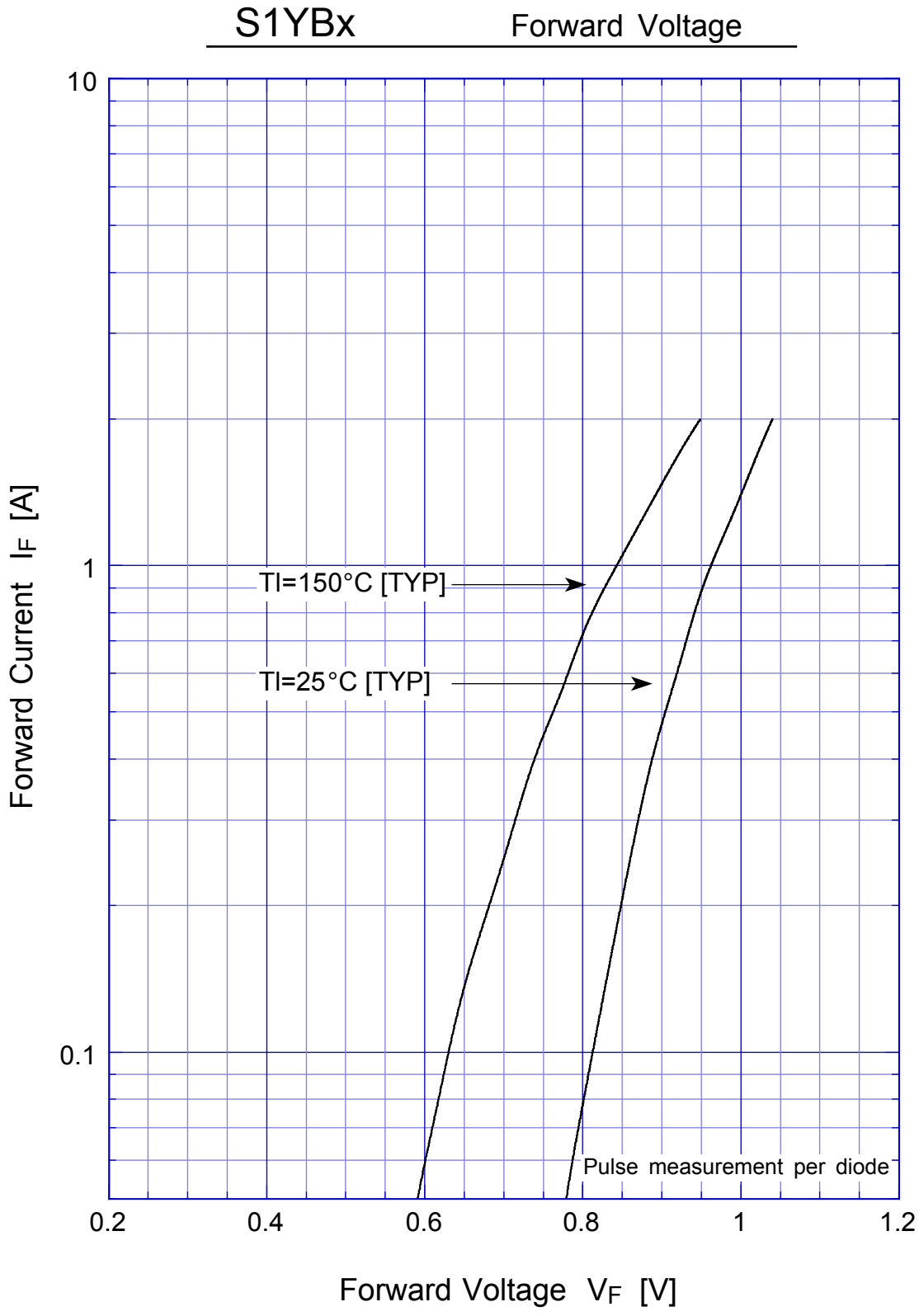
RATINGS

●Absolute Maximum Ratings (If not specified Tl=25℃)

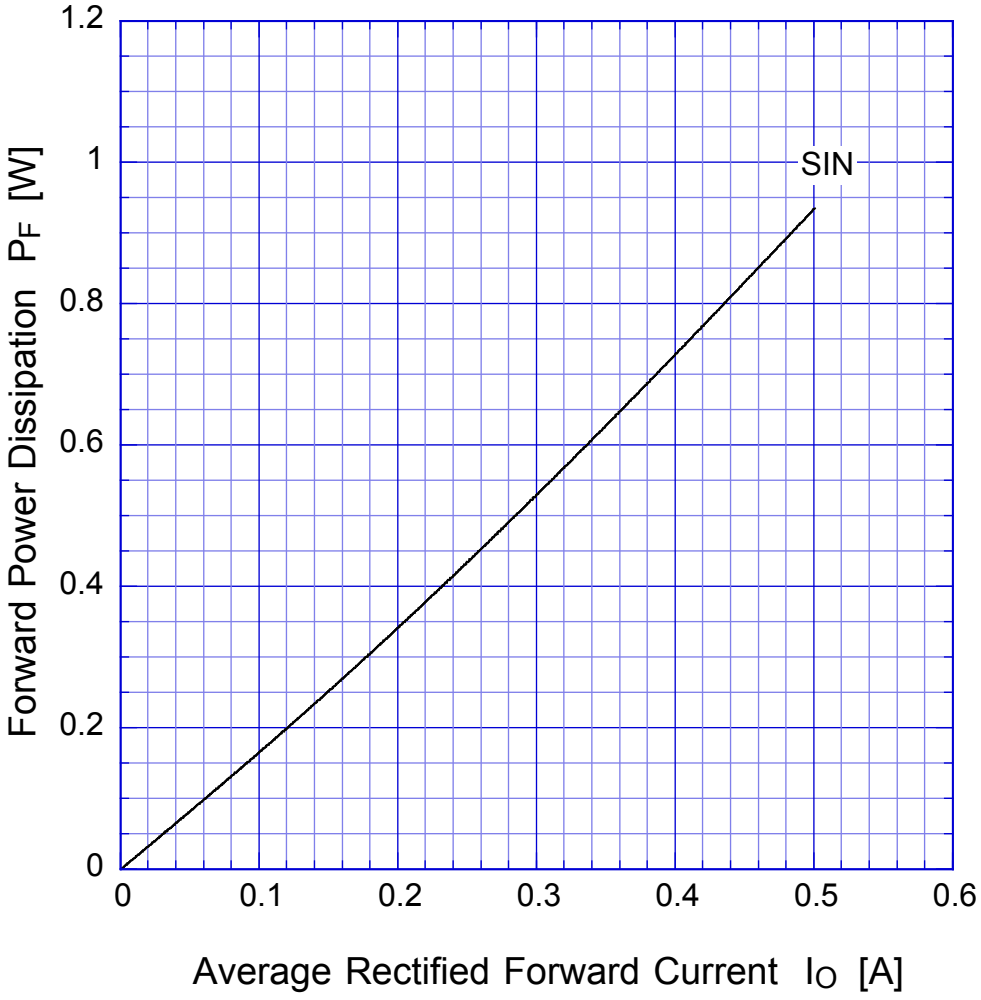
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		200	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Ta=40℃	0.4	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	30	A
Current Squared Time	I^2t	1ms≦t＜10ms Tj=25℃	4.5	A^2s

●Electrical Characteristics (If not specified Tl=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=0.2A, 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.20	℃/W
	θ ja	junction to ambient	Max.150	

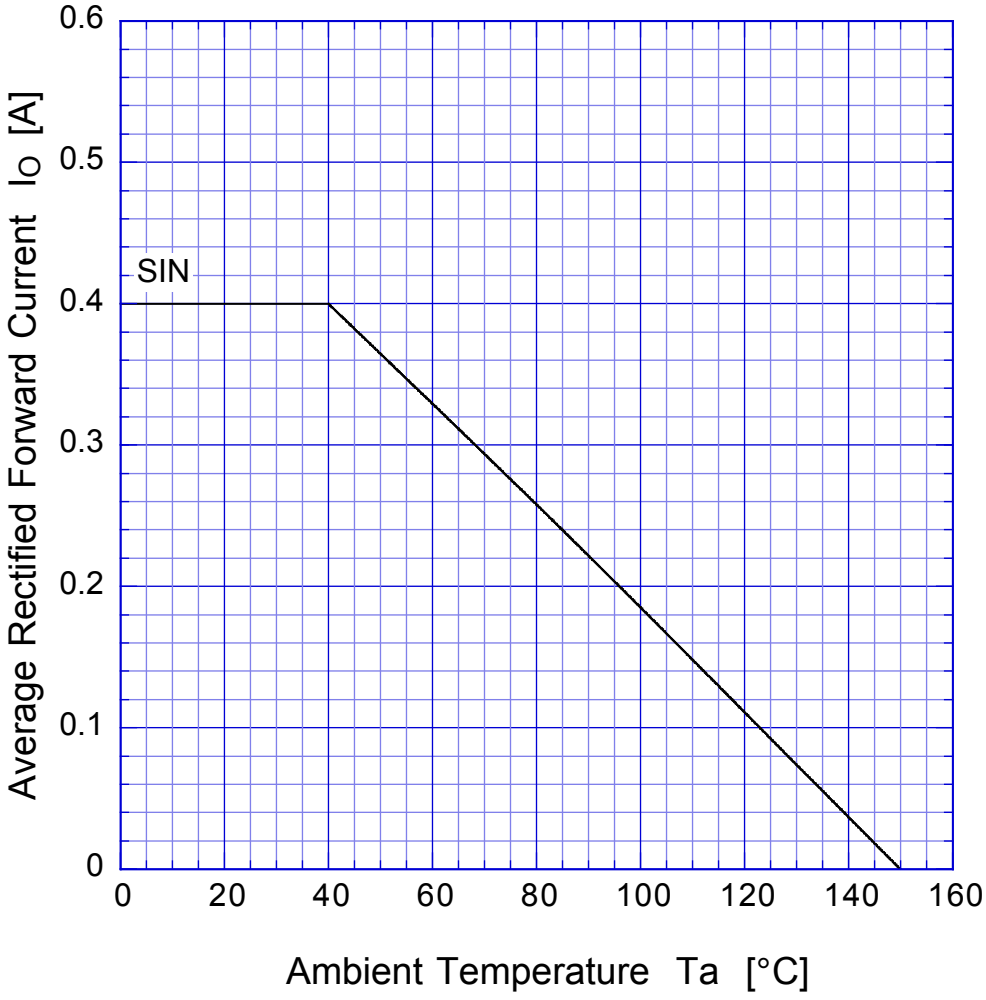

S1YBx
Forward Voltage
10
1
0.1
Forward Current IF [A]
Tl=150°C [TYP]
Tl=25°C [TYP]
Pulse measurement per diode
0.2
0.4
0.6
0.8
1
1.2
Forward Voltage VF [V]

S1YBx Forward Power Dissipation

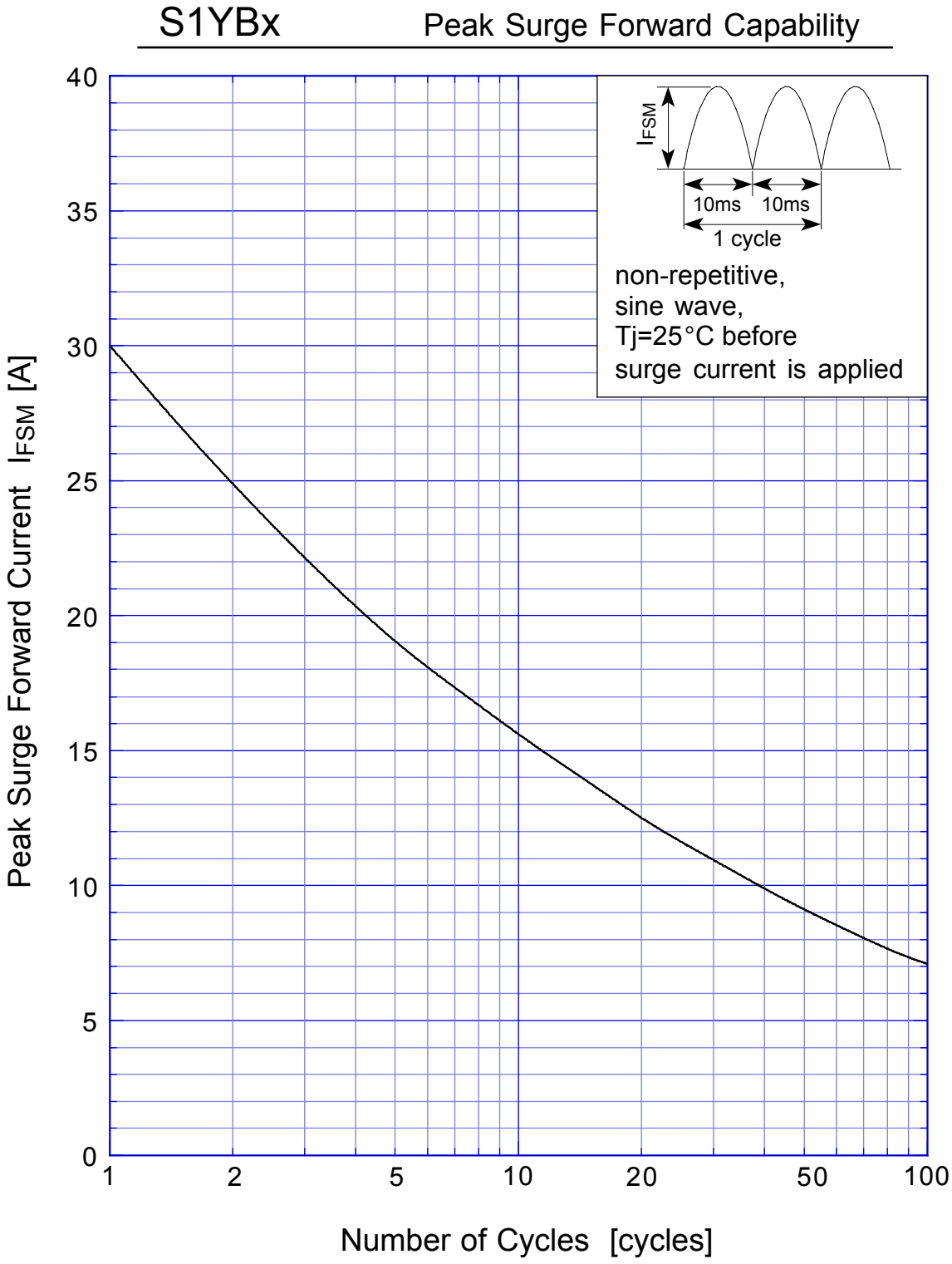


Tj= 150°C
Sine wave

S1YBx Derating Curve



Sine wave
R-load
Free in air


S1YBx
Peak Surge Forward Capability
Peak Surge Forward Current IFSM [A]
Number of Cycles [cycles]
40
35
30
25
20
15
10
5
0
1
2
5
10
20
50
100
IFSM
10ms
10ms
1 cycle
non-repetitive,
sine wave,
Tj=25°C before
surge current is applied