SHINDENGEN

General Purpose Rectifiers

SMT Bridges

S1ZB80

800V 0.8A

FEATURES

- Small SMT package
- High reliability with superior moisture resistance
- Applicable to Automatic Insertion

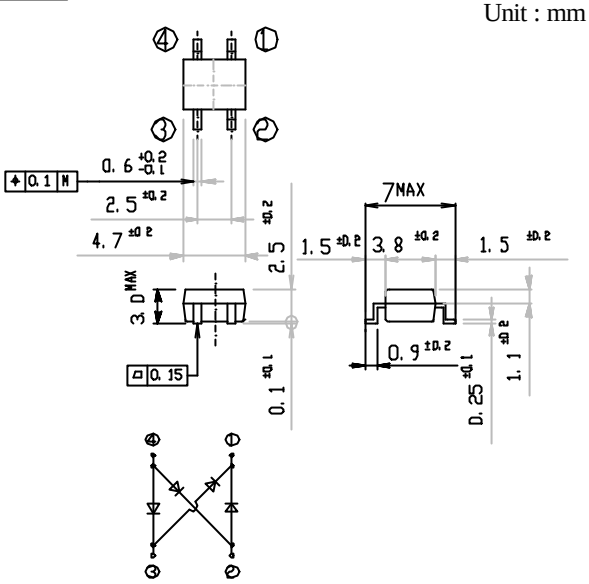
APPLICATION

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

OUTLINE DIMENSIONS

Case : 1Z

Unit : mm



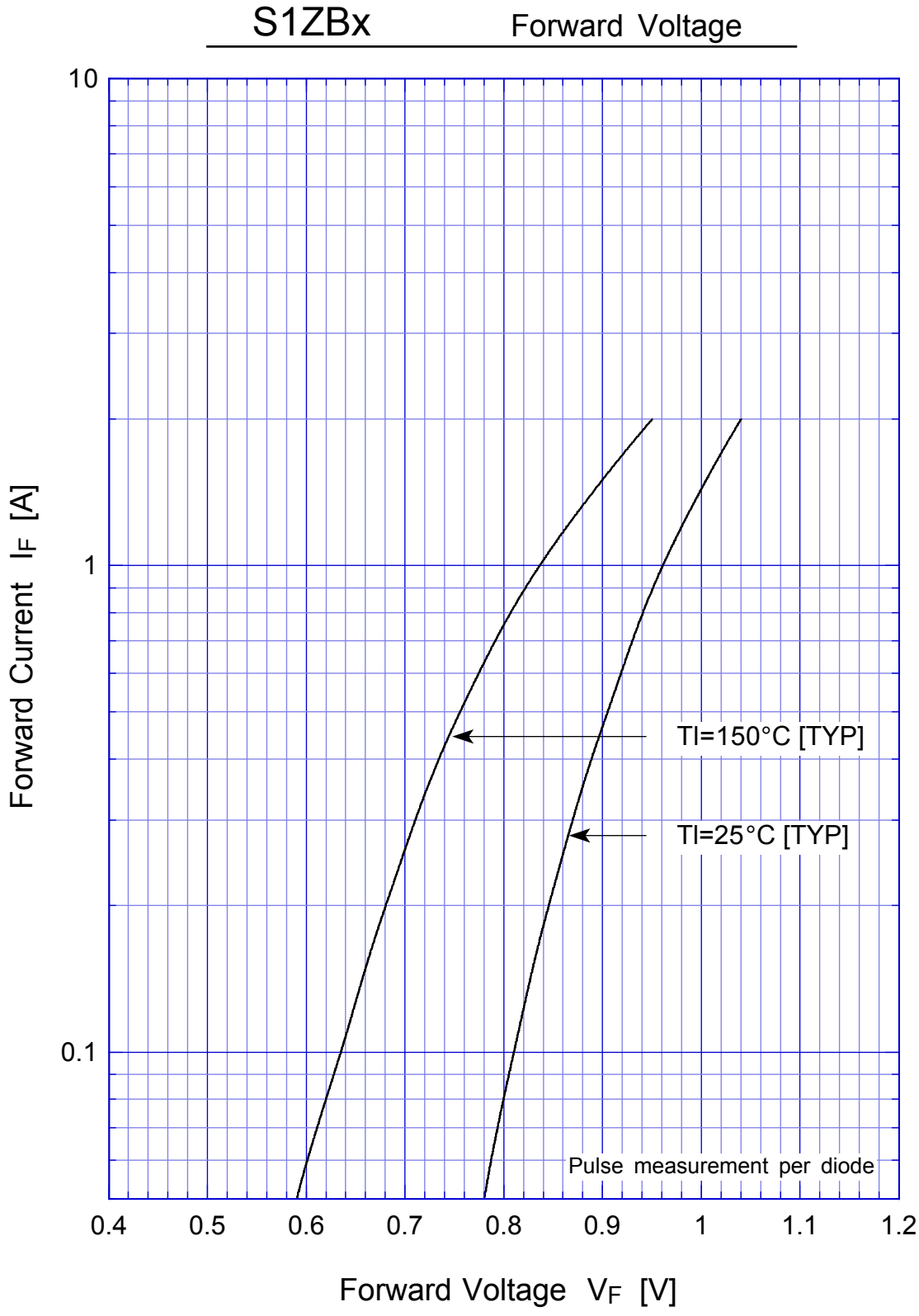
RATINGS

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

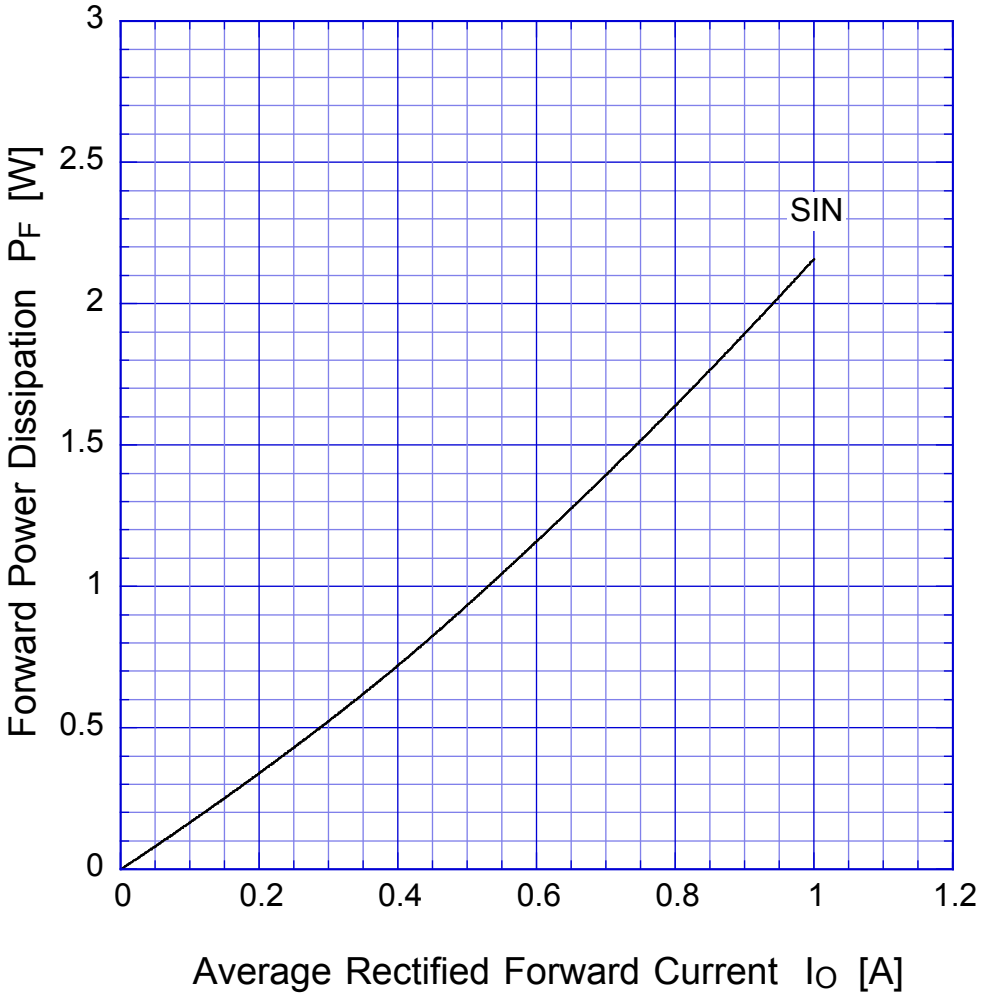
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40～150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	V_{RM}		800	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load On alumina substrate Ta=25°C	0.8	A
		50Hz sine wave, R-load On glass-epoxy substrate Ta=25°C	0.5	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	30	A
Current Squared Time	I^2t	1ms≦t＜10ms Tj=25°C	4.5	A^2s

●Electrical Characteristics (If not specified Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=0.4A, 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.20	°C/W
	θja	junction to ambient On alumina substrate	Max.76	
		junction to ambient On glass-epoxy substrate	Max.134	

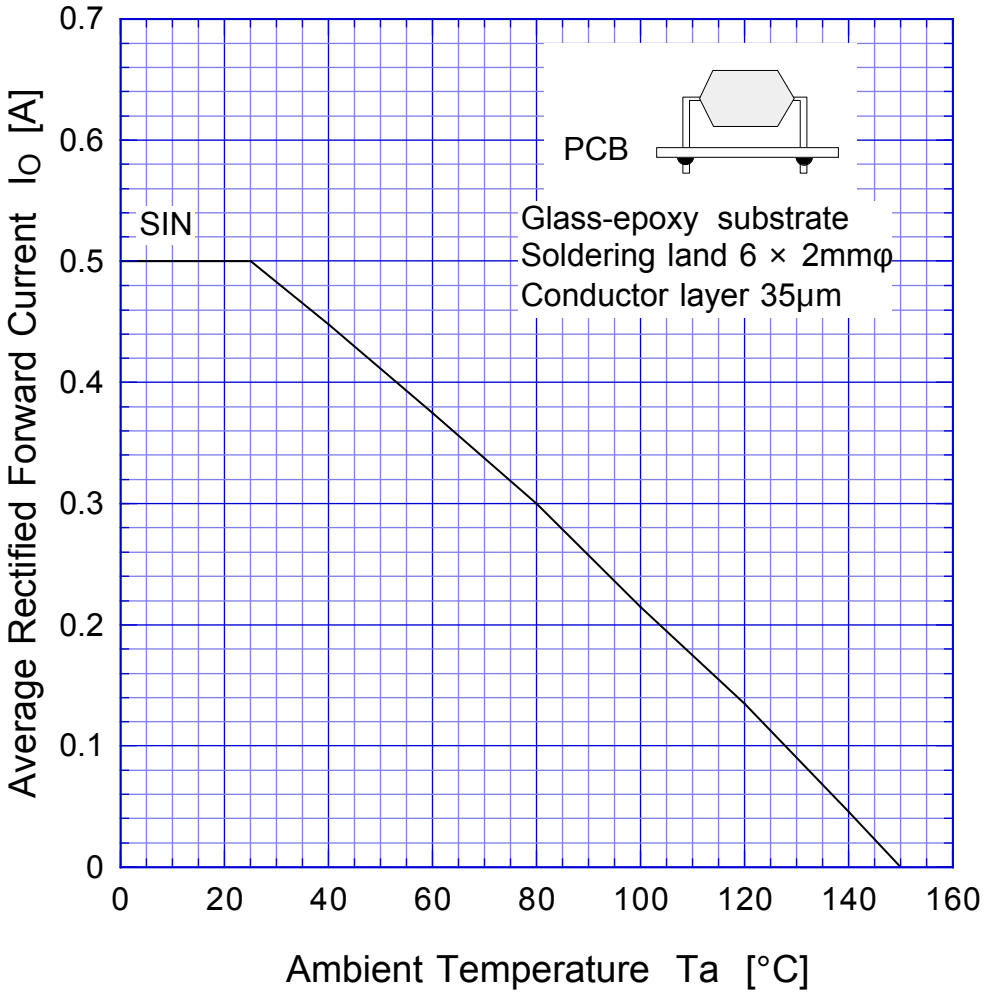

S1ZBx
Forward Voltage
10
1
0.1
Forward Current IF [A]
Tl=150°C [TYP]
Tl=25°C [TYP]
Pulse measurement per diode
0.4
0.5
0.6
0.7
0.8
0.9
1
1.1
1.2
Forward Voltage VF [V]

S1ZBx Forward Power Dissipation



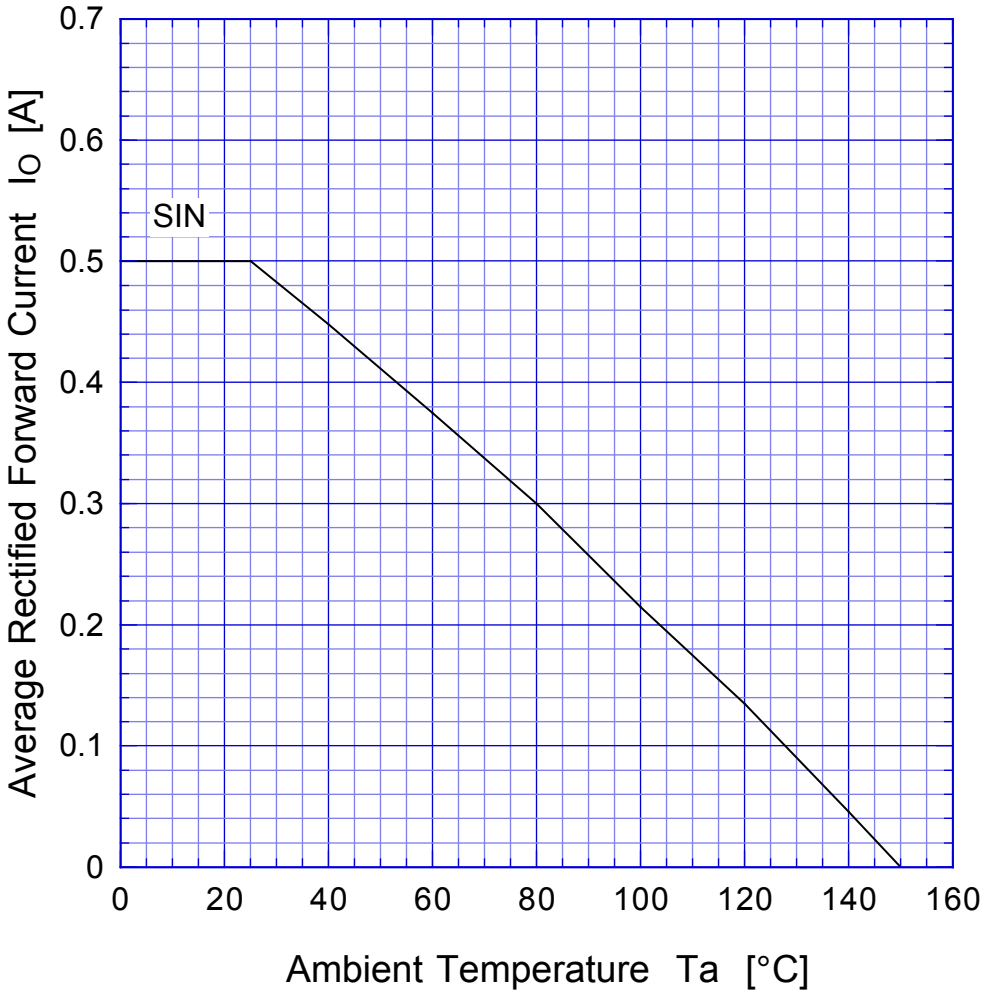
Tj = 150°C
Sine wave

S1ZBx Derating Curve



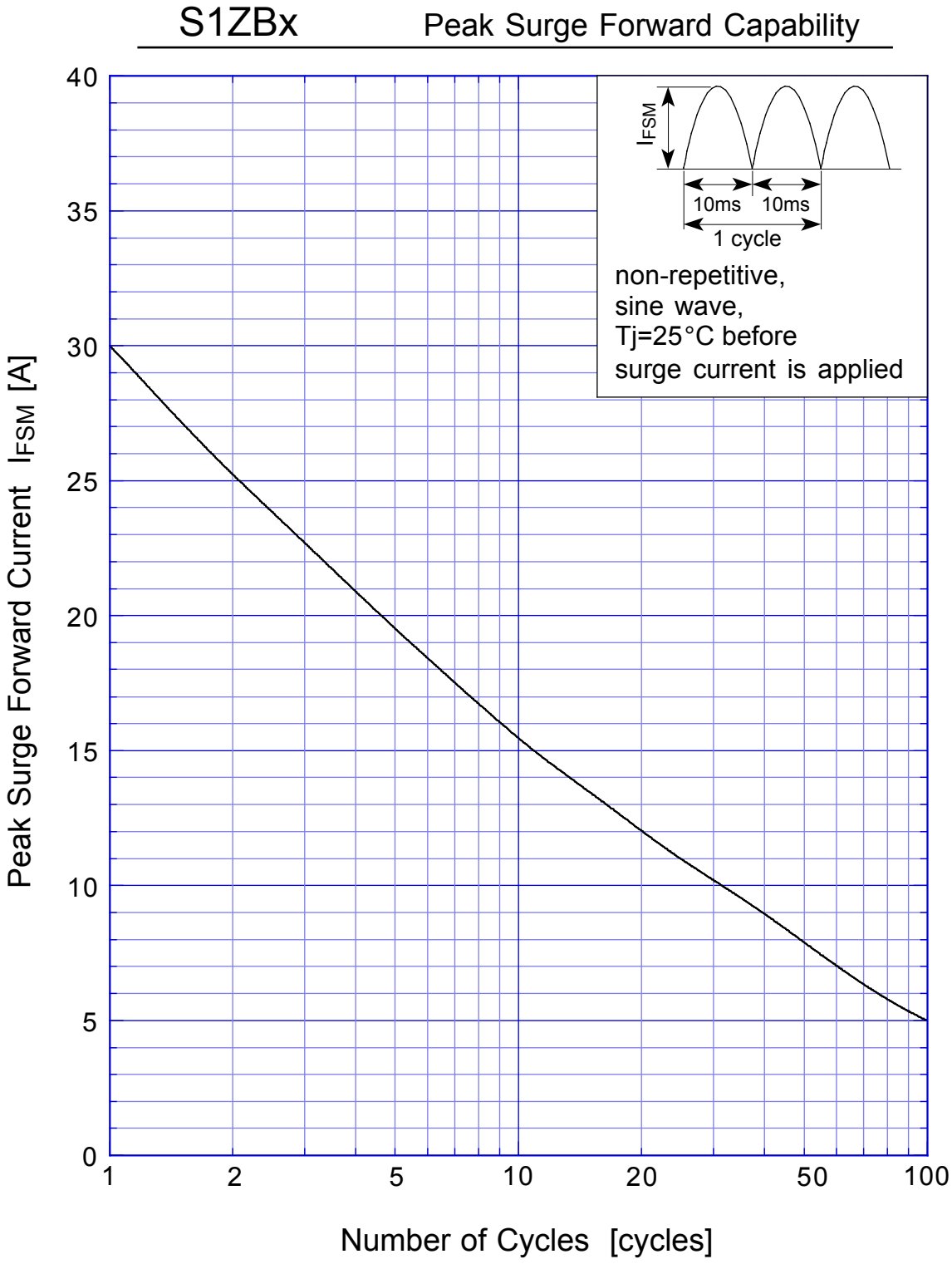
Sine wave
R-load
Free in air

S1ZBx Derating Curve



Sine wave
R-load
Free in air

	Glass-epoxy	Alumina
Soldering land	1mmφ	1mmφ
Conductor layer	35μm	20μm
Substrate thickness		0.64mm


S1ZBx
Peak Surge Forward Capability
40
35
30
25
20
15
10
5
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