# SHINDENGEN

## General Purpose Rectifiers

**Square In-line Package**

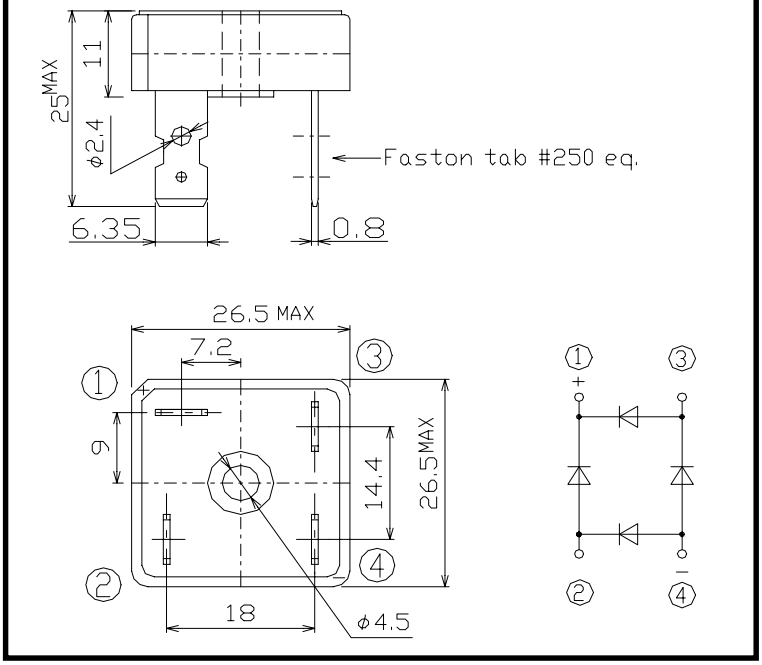
# S15VB20

**200V 15A**

## OUTLINE DIMENSIONS

Case : S15VB

Unit : mm



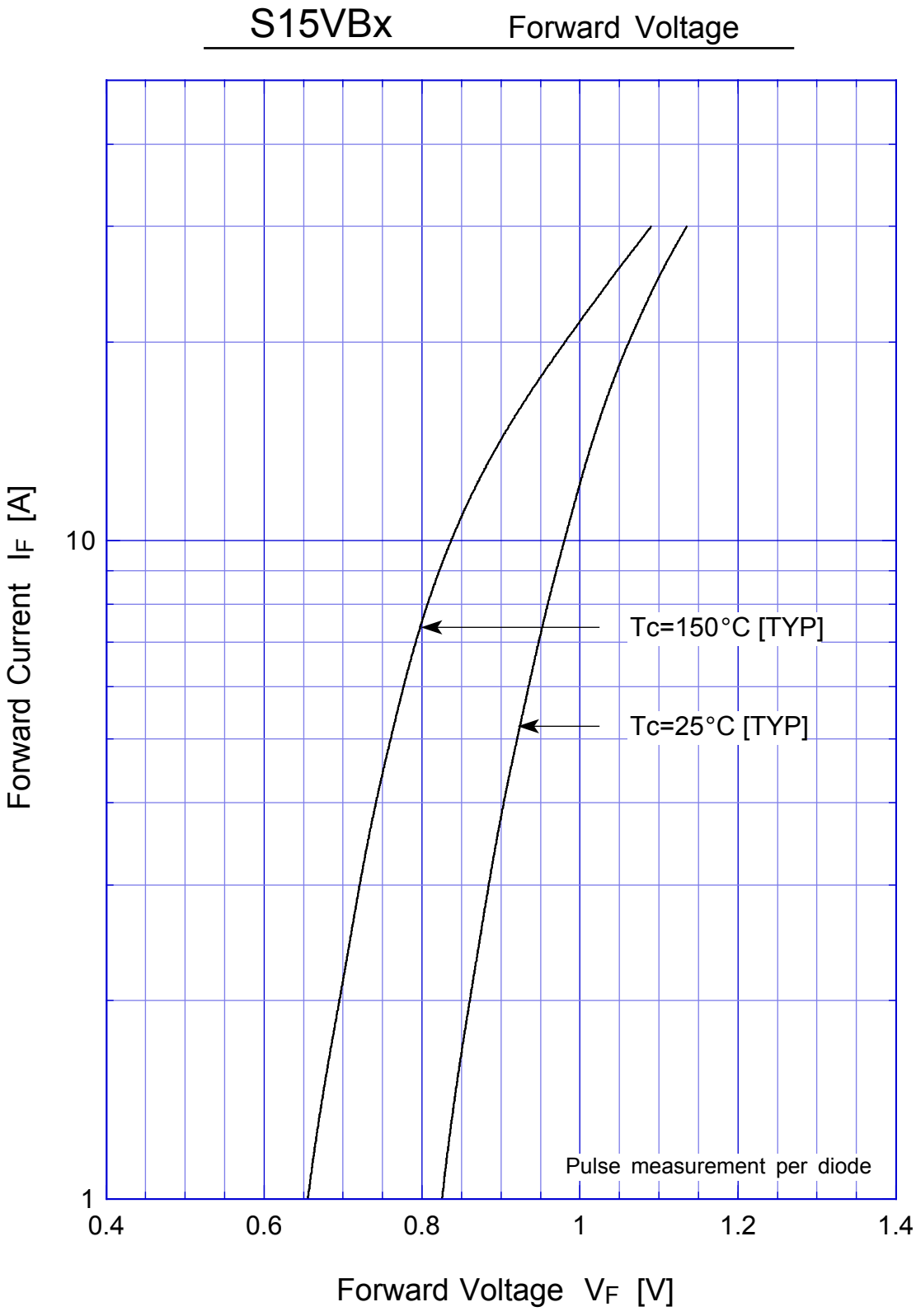

## RATINGS

● Absolute Maximum Ratings

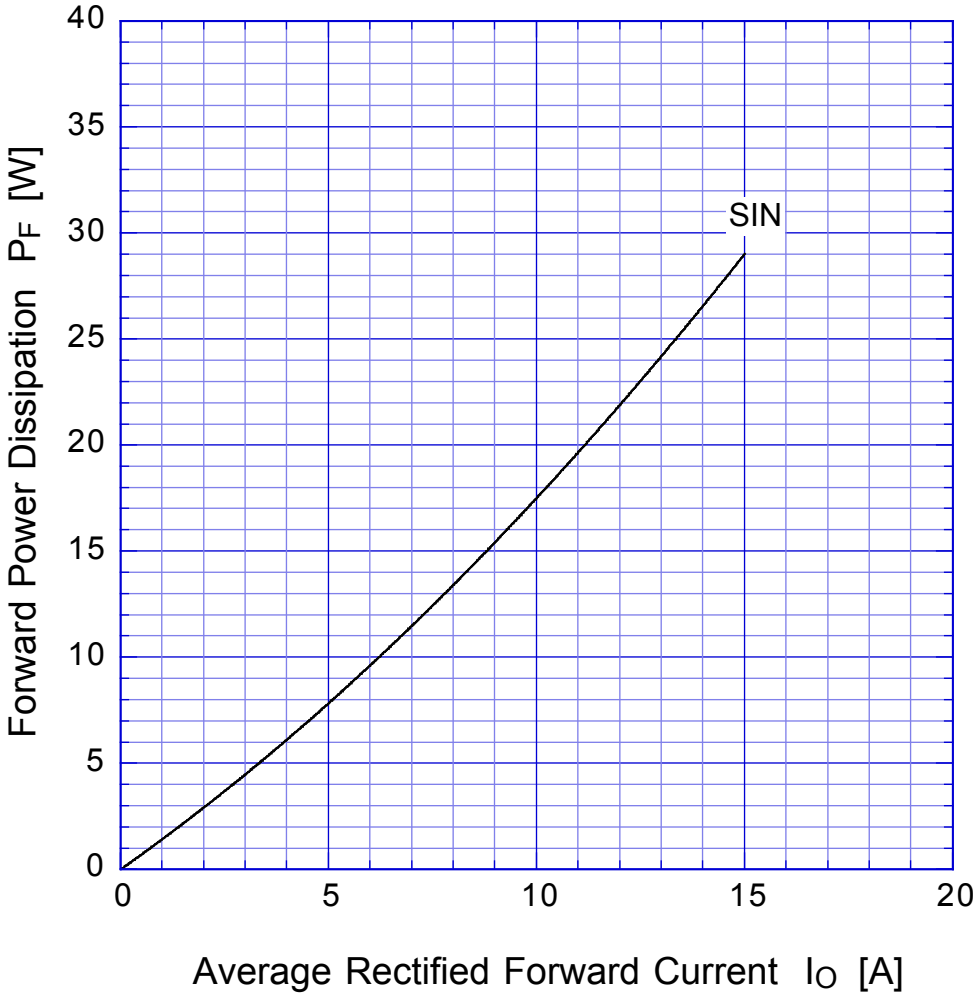
| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Storage Temperature | Tstg | | −40～150 | ℃ |
| Operating Junction Temperature | Tj | | 150 | ℃ |
| Maximum Reverse Voltage | $V_{RM}$ | | 200 | V |
| Average Rectified Forward Current | $I_O$ | 50Hz sine wave, R-load With heatsink, Tc=83℃ | 15 | A |
| | | 50Hz sine wave, R-load Without heatsink, Ta=40℃ | 4.5 | |
| 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 Tj=25℃ | 200 | $A^2s$ |
| Dielectric Strength | Vdis | Terminals to case, AC 1 minute | 2 | kV |
| Mounting Torque | TOR | (Recommended torque : 1N･m) | 2 | N･m |

● Electrical Characteristics (Tc=25℃)

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Forward Voltage | $V_F$ | IF=7.5A, 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 | θjc | junction to case | Max.2.3 | ℃/W |

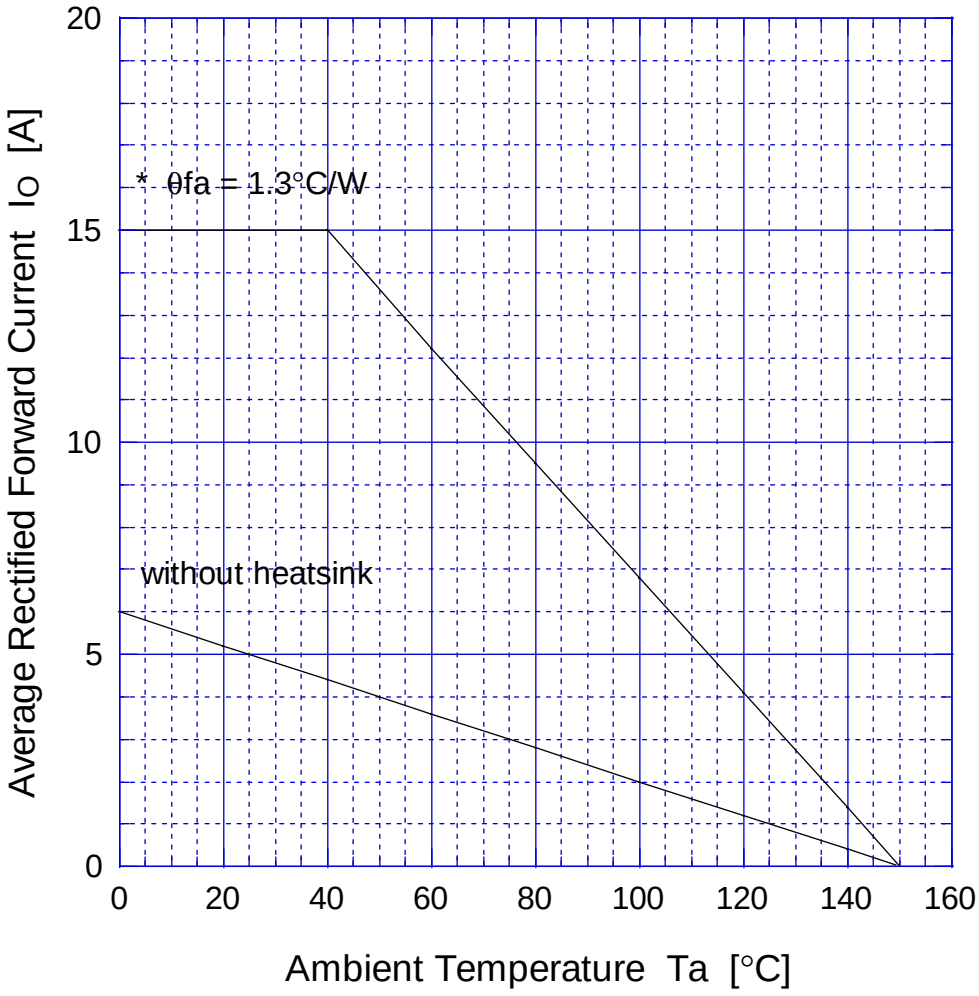

S15VBx
Forward Voltage
Forward Current IF [A]
10
1
Tc=150°C [TYP]
Tc=25°C [TYP]
Pulse measurement per diode
0.4
0.6
0.8
1
1.2
1.4
Forward Voltage VF [V]

# S15VBx Forward Power Dissipation

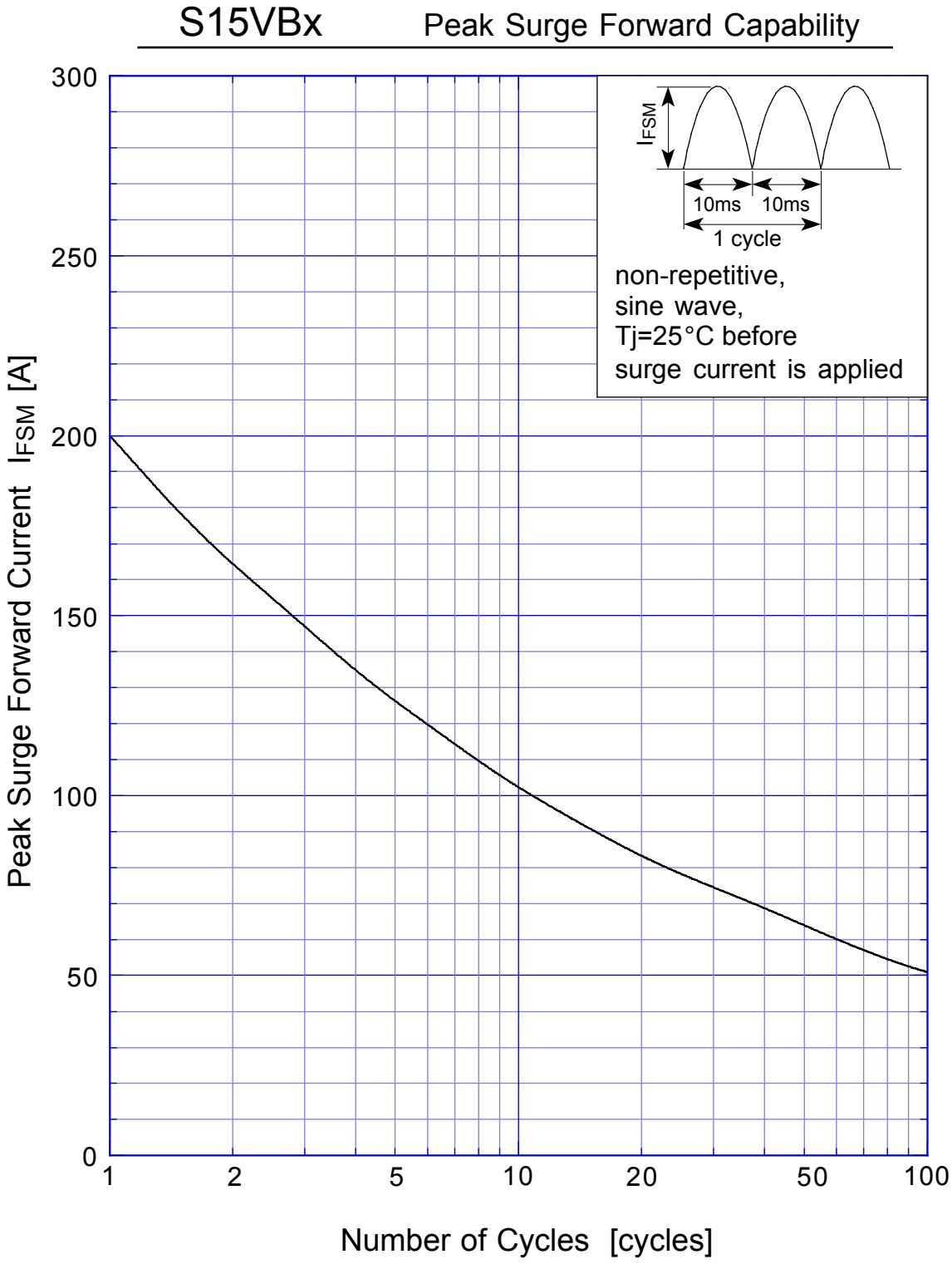



Tj = 150°C
Sine wave

# S15VBx Derating Curve




Sine wave
R-load
Free in air
* with thermal compound, TOR=0.5N-m


S15VBx
Peak Surge Forward Capability
300
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