

SHINDENGEN

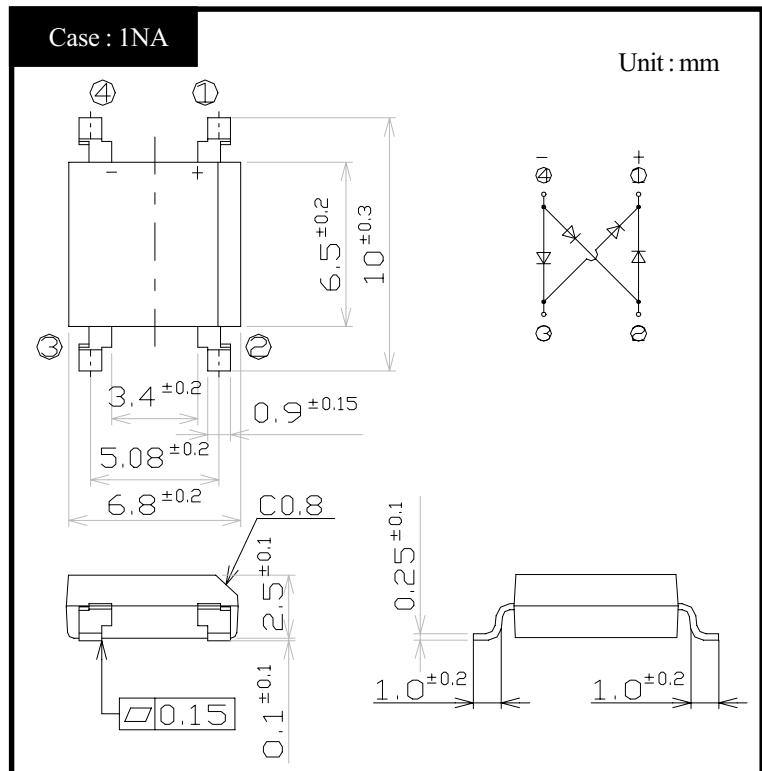
General Purpose Rectifiers

SMT Bridges

S1NBB80

800V 1A

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (If not specified $T_a=25^\circ\text{C}$)

| Item | Symbol | Conditions | Ratings | Unit |
|-----------------------------------|-----------|---------------------------------------------------------------------------|------------|----------------------|
| Storage Temperature | T_{stg} | | -40 to 150 | $^\circ\text{C}$ |
| Operating Junction Temperature | T_j | | 150 | $^\circ\text{C}$ |
| Maximum Reverse Voltage | V_{RM} | | 800 | V |
| Average Rectified Forward Current | I_o | 50Hz sine wave, R-load, Glass-epoxy substrate, $T_a=26^\circ\text{C}$ *1 | 1 | A |
| | I_o | 50Hz sine wave, R-load, Glass-epoxy substrate, $T_a=25^\circ\text{C}$ *2 | 0.84 | A |
| Peak Surge Forward Current | I_{FSM} | 50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ\text{C}$ | 50 | A |
| Current Squared Time | I^2t | $1\text{ms} \leq t < 10\text{ms}$ $T_j=25^\circ\text{C}$ | 6 | A^2s |

Electrical Characteristics (If not specified $T_a=25^\circ\text{C}$)

| Item | Symbol | Conditions | Ratings | Unit |
|--------------------|---------------|------------------------------------------------------------|----------|--------------------|
| Forward Voltage | V_F | $I_F=0.5\text{A}$, 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 15 | $^\circ\text{C/W}$ |
| | θ_{ja} | junction to ambient *1 | Max 68 | |
| | θ_{ja} | junction to ambient *2 | Max 84 | |

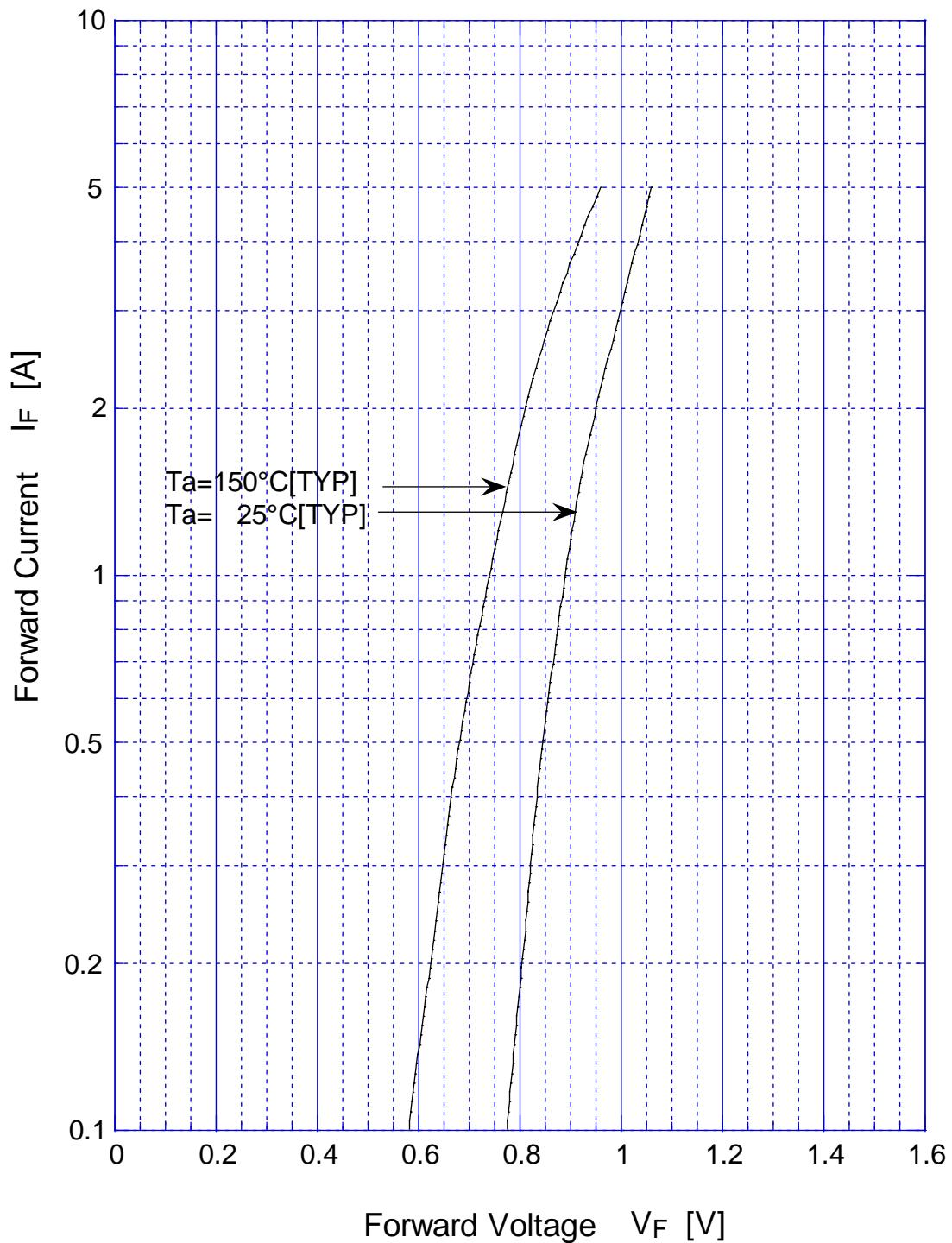
*1 : Glass epoxy substrate (pattern area : 324mm^2)

*2 : Glass epoxy substrate (pattern area : 101mm^2)

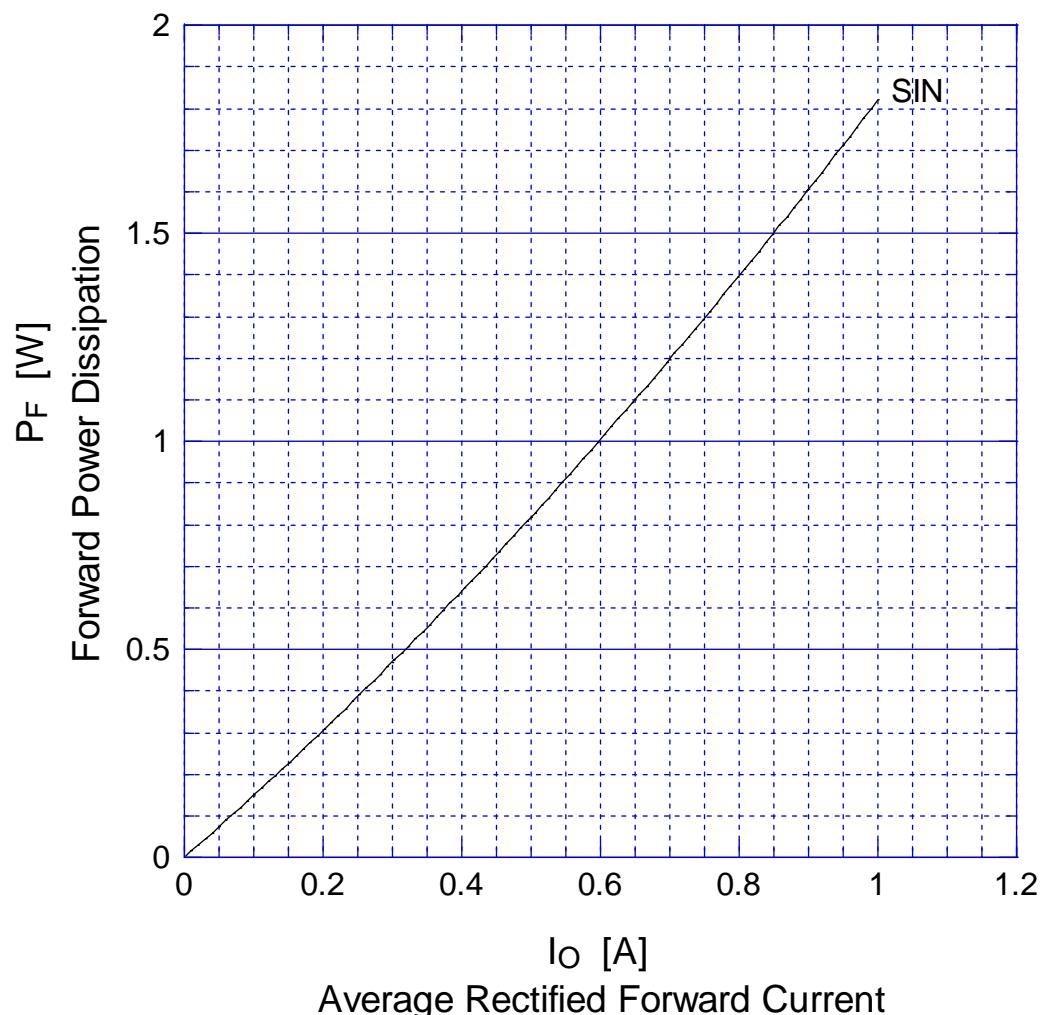
S1NBB80

Forward Voltage

Pulse measurement per diode



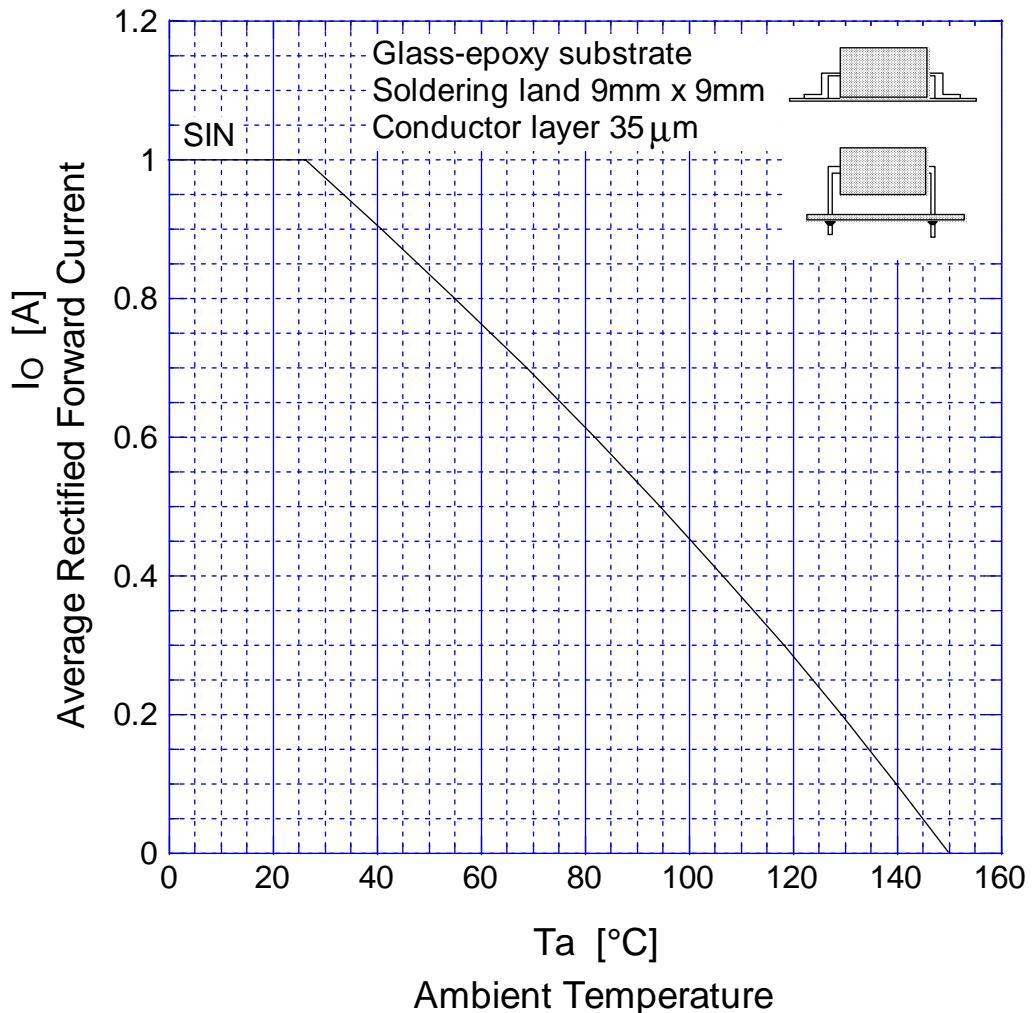
S1NBB80 Forward Power Dissipation



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

S1NBB80

Derating Curve



$$V_R = V_{RM}$$

S1NBB80 Peak Surge Forward Capability

