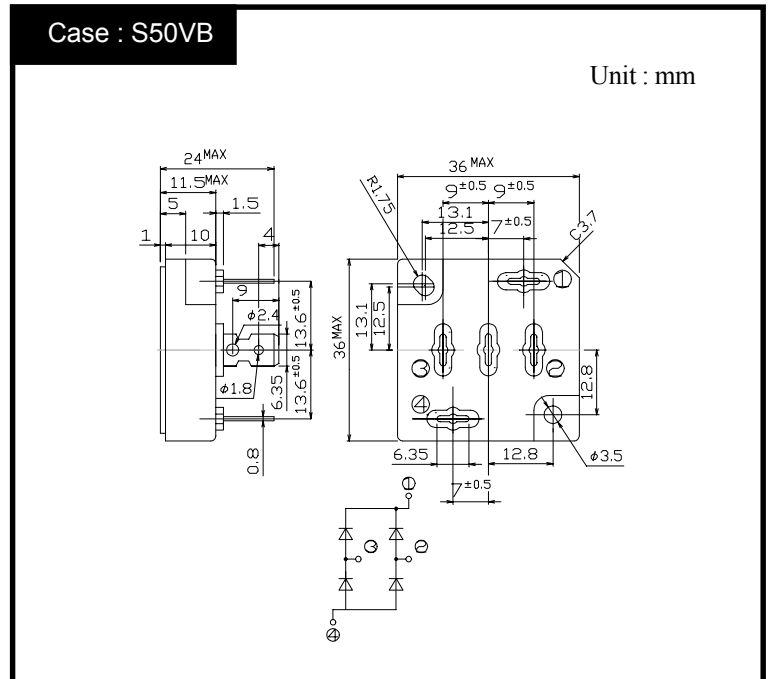


# S50VB80

## 800V 50A

### OUTLINE DIMENSIONS



### RATINGS

#### ● Absolute Maximum Ratings

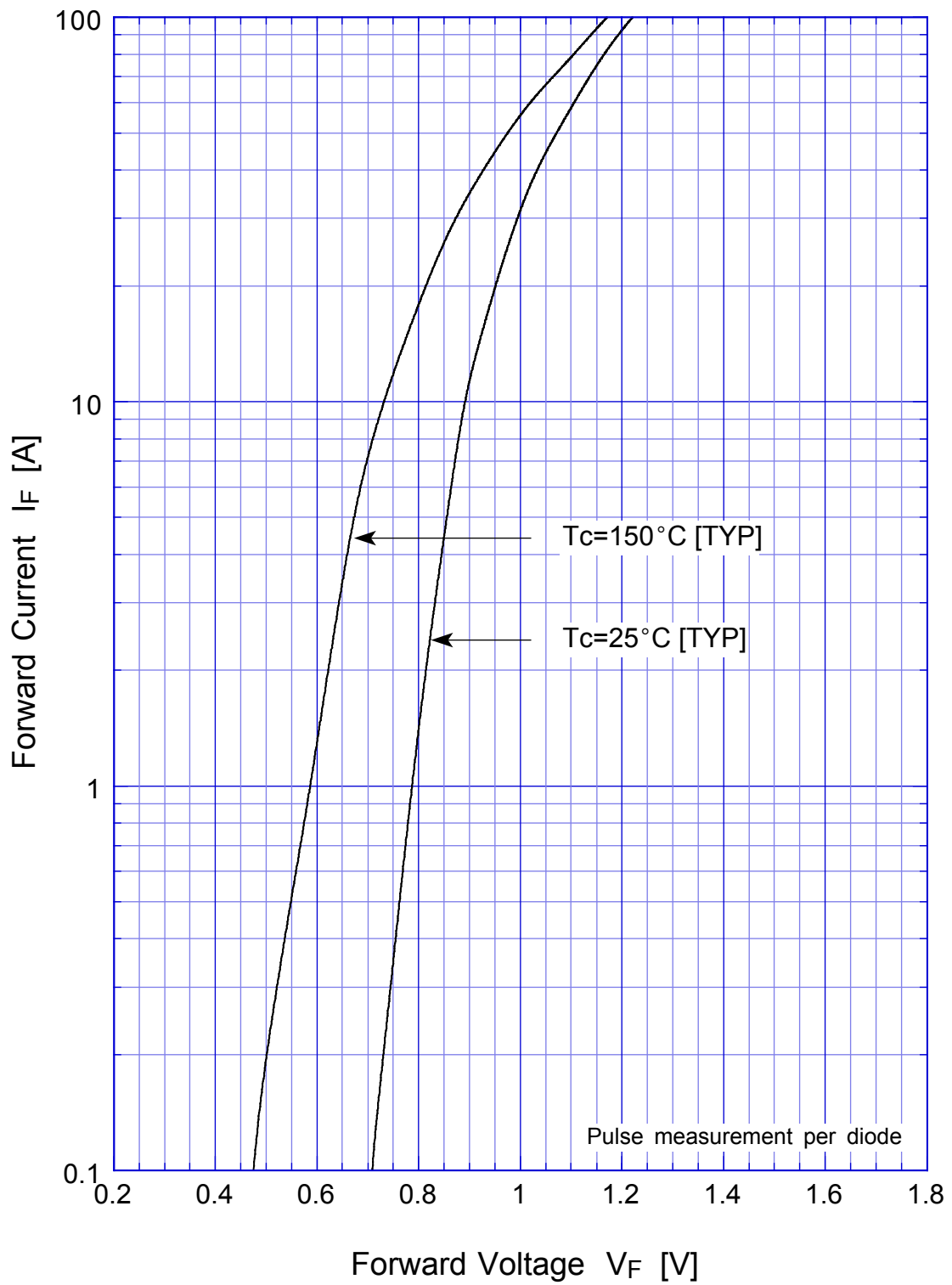
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40~150	°C
Operating Junction Temperature	T <sub>j</sub>		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		800	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, With heatsink, T <sub>c</sub> =95°C	50	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1cycle peak value, T <sub>j</sub> =25°C	500	A
Current Squared Time	I <sup>2</sup> t	1ms ≤ t < 10ms T <sub>c</sub> =25°C	800	A <sup>2</sup> s
Dielectric Strength	V <sub>dis</sub>	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : 0.6N·m)	0.8	N·m

#### ● Electrical Characteristics (T<sub>c</sub>=25°C)

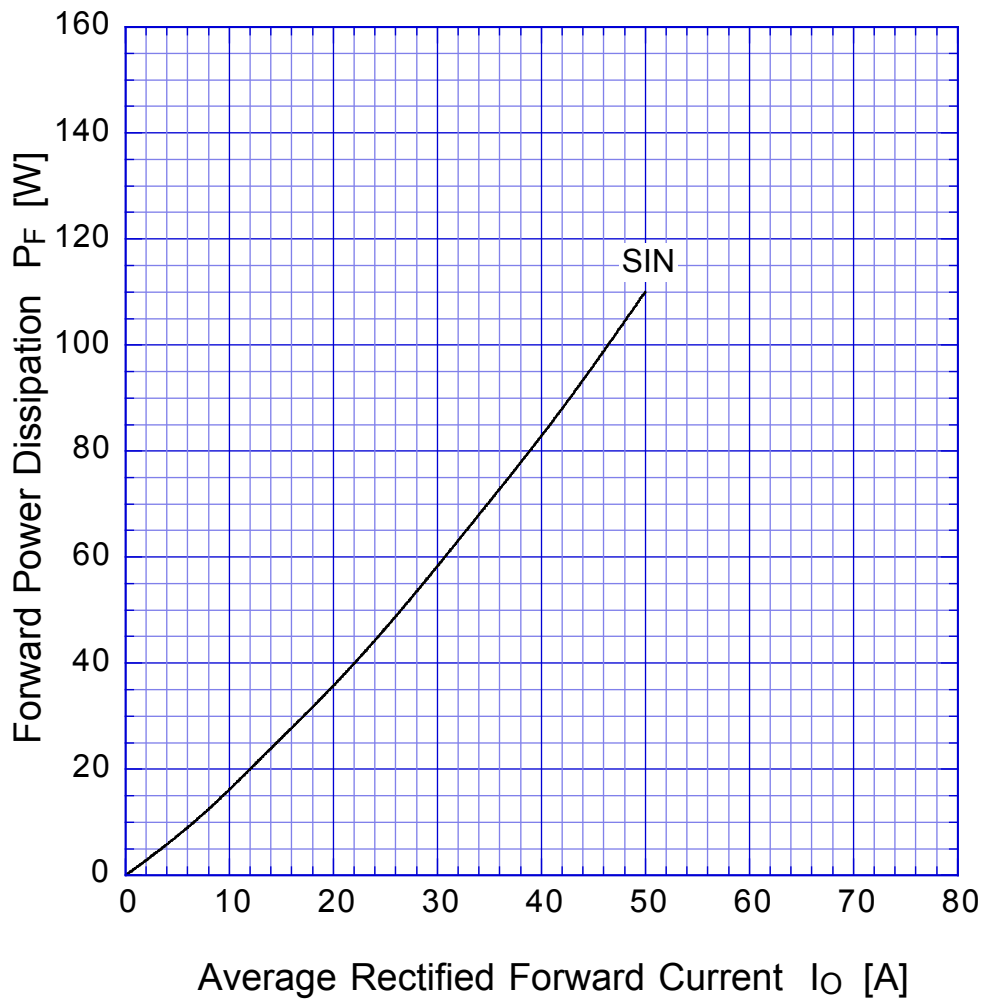
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =25A, Pulse measurement, Rating of per diode	Max.1.05	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.10	μA
Thermal Resistance	θ <sub>jc</sub>	junction to case	Max.0.5	°C/W

S50VBx

Forward Voltage



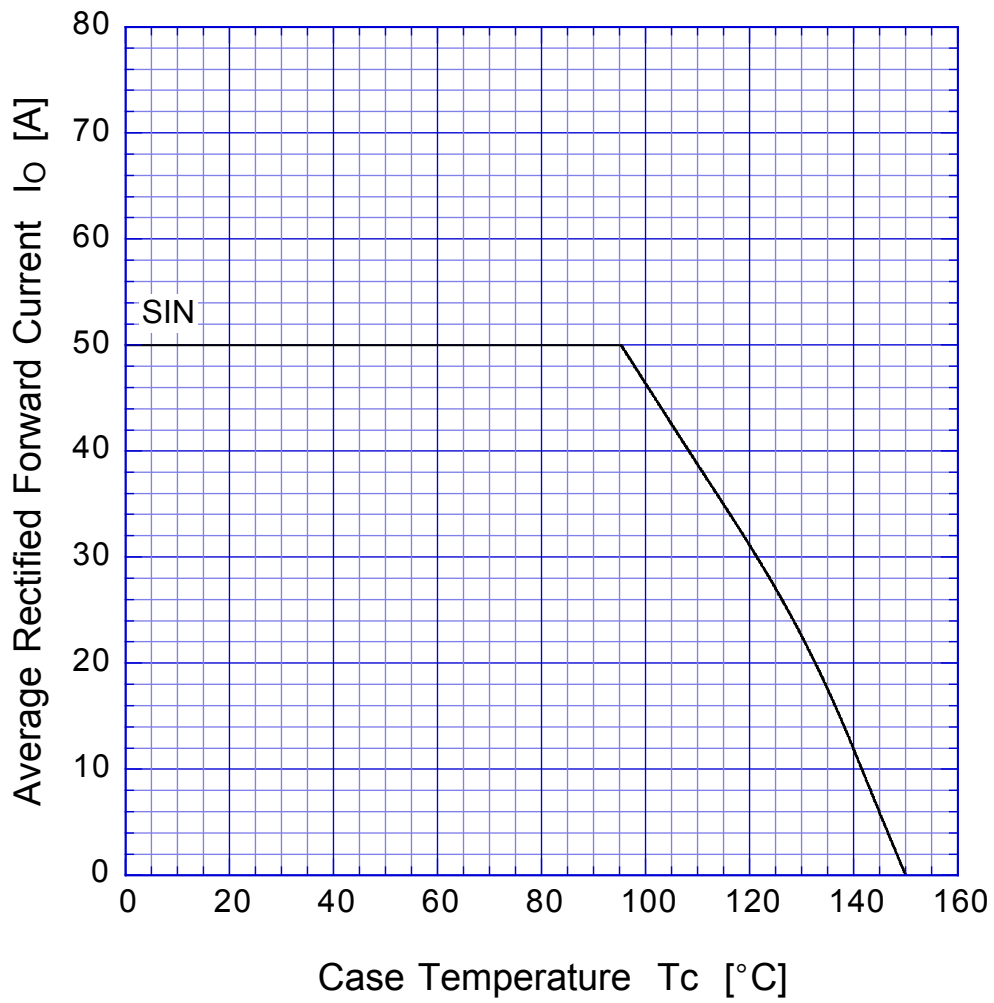
# S50VBx Forward Power Dissipation



$T_j = T_{jmax}$

# S50VBx

# Derating Curve



$$V_R = V_{RM}$$



# S50VBx

## Peak Surge Forward Capability

