D50SB80

800V 50A

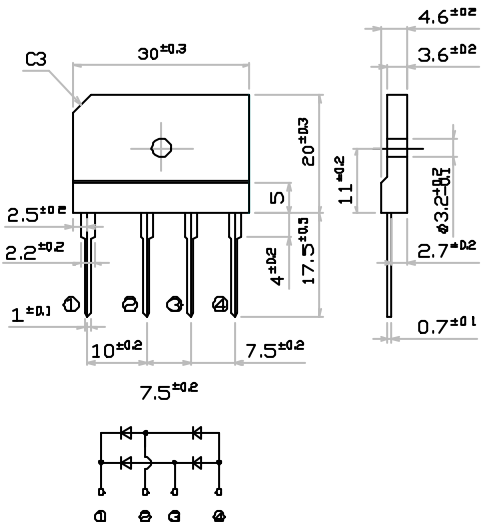
FEATURES

- Thin Single In-Line Package
- High current capacity with Small Package
- High IFSM
- Superior Thermal Conductivity

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

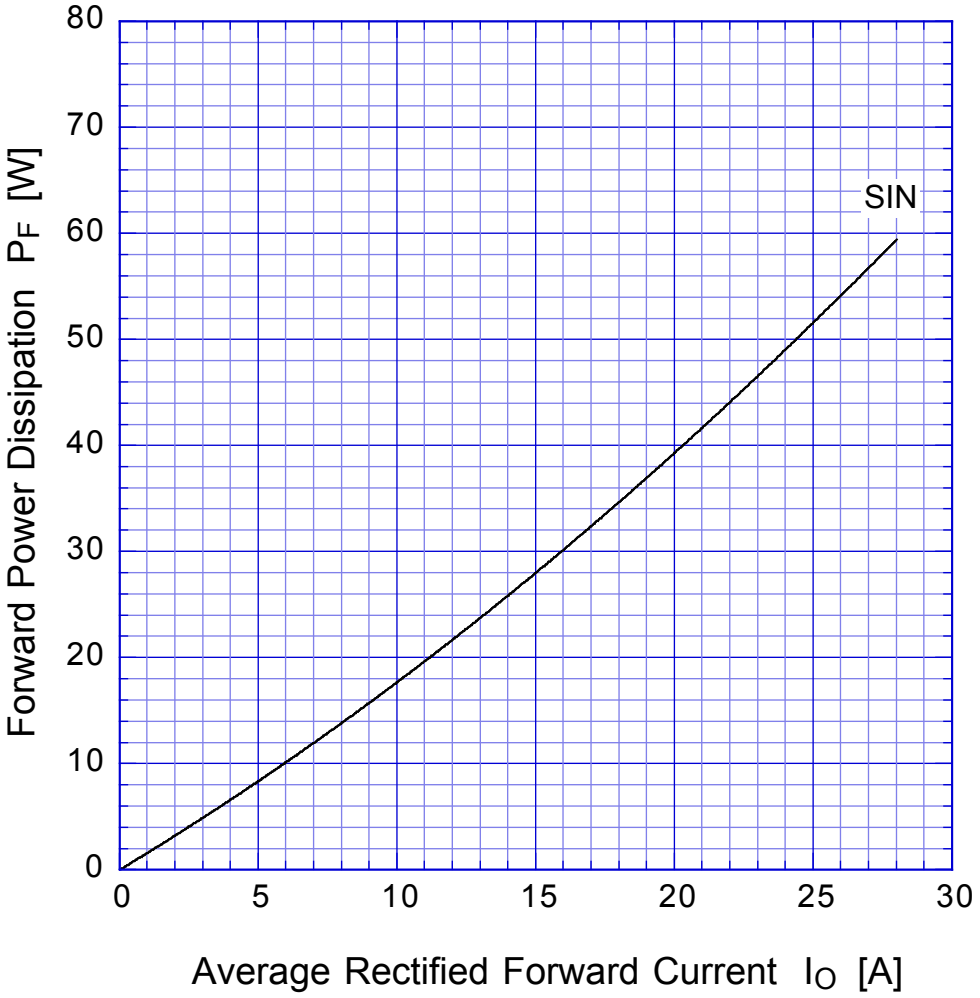
●Absolute Maximum Ratings (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		800	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load With heatsink Tc=98℃	50	A
		50Hz sine wave, R-load Without heatsink Ta=25℃	3.5	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Tj=25℃	350	A
Current Squared Time	I^2t	1ms≦t＜10ms Tj=25℃	300	A^2s
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2.5	kV
Mounting Torque	TOR	Recommended torque 0.5N·m)	0.8	N·m

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

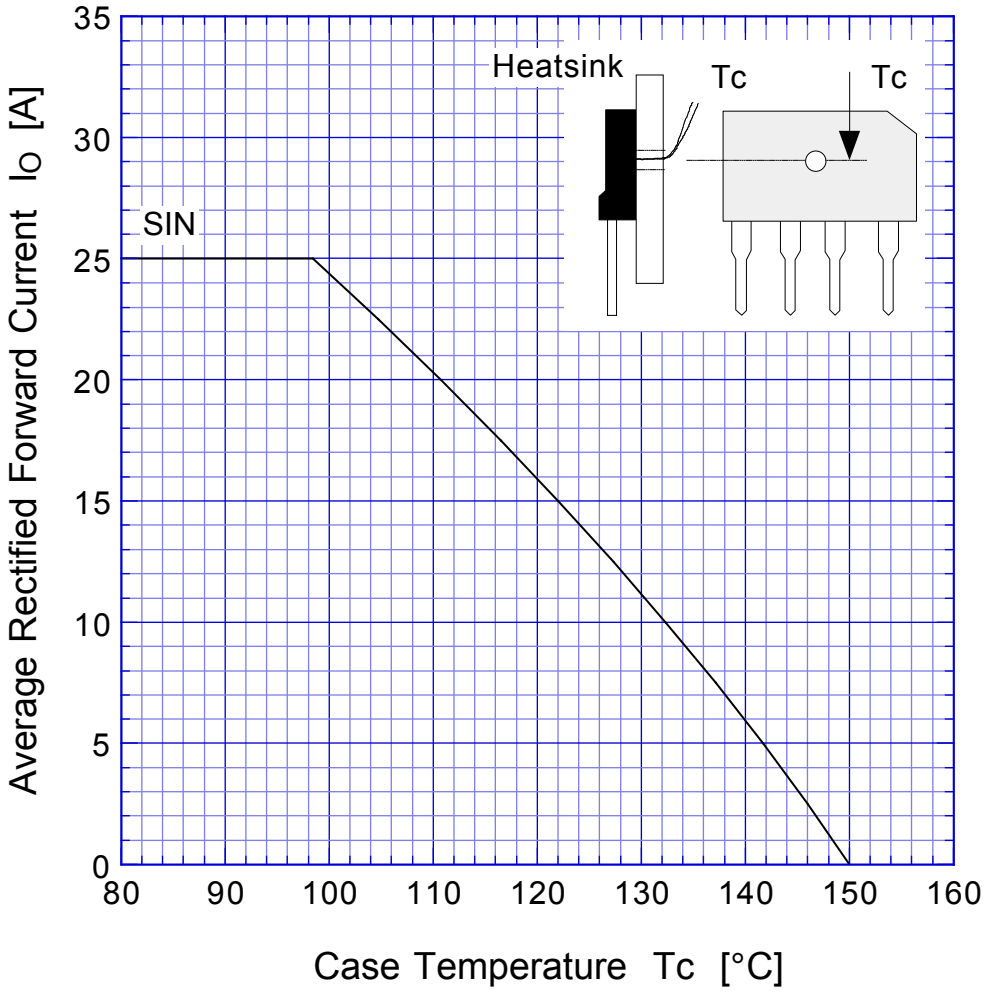
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=12.5A, Pulse measurement, Rating of per diode	Max.1.05	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.10	μA
Thermal Resistance	θjc	junction to case With heatsink	Max.1.0	℃/W
	θjl	junction to lead Without heatsink	Max.5	
	θja	junction to ambient Without heatsink	Max.22	

D50SB80 Forward Power Dissipation



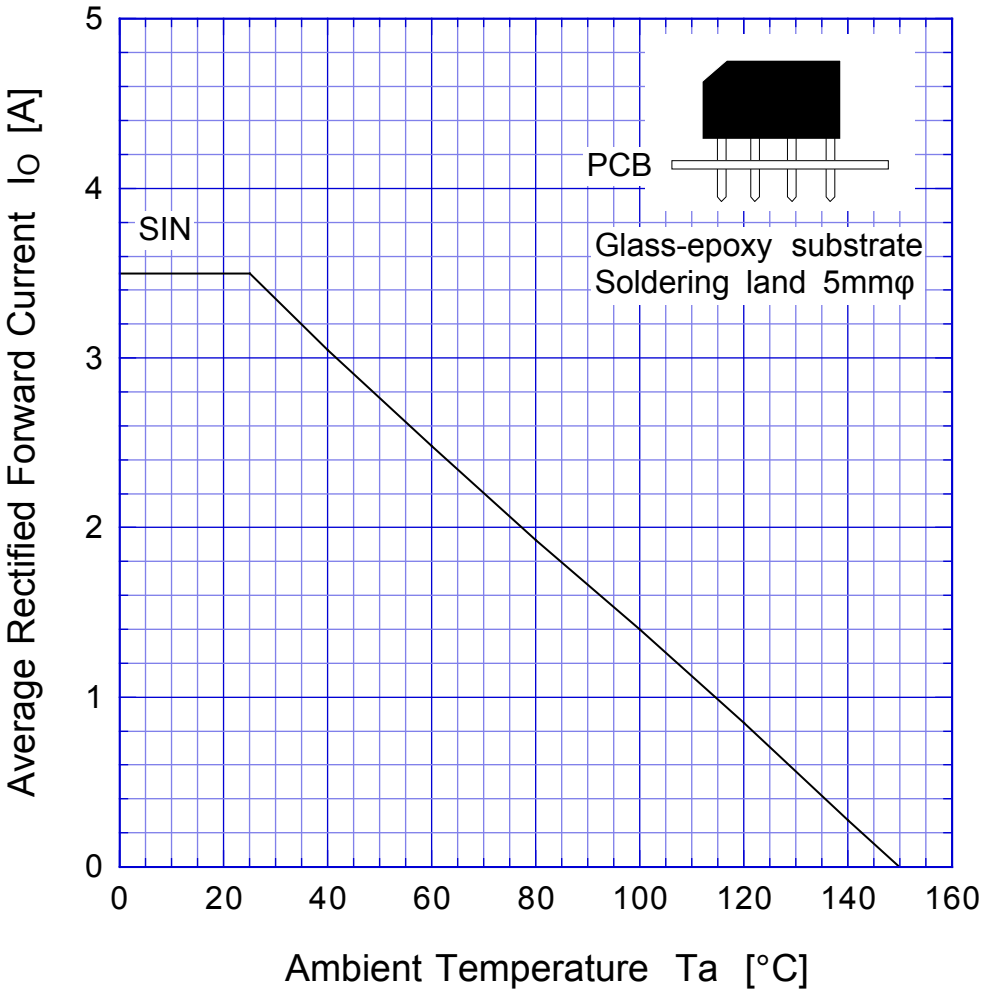
Tj = 150°C
Sine wave

D50SB80 Derating Curve



Sine wave
R-load
with heatsink

D50SB80 Derating Curve



Sine wave
R-load
Free in air

D50SB80 Peak Surge Forward Capability

