

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

# D1NS4

## 40V 1A

### FEATURES

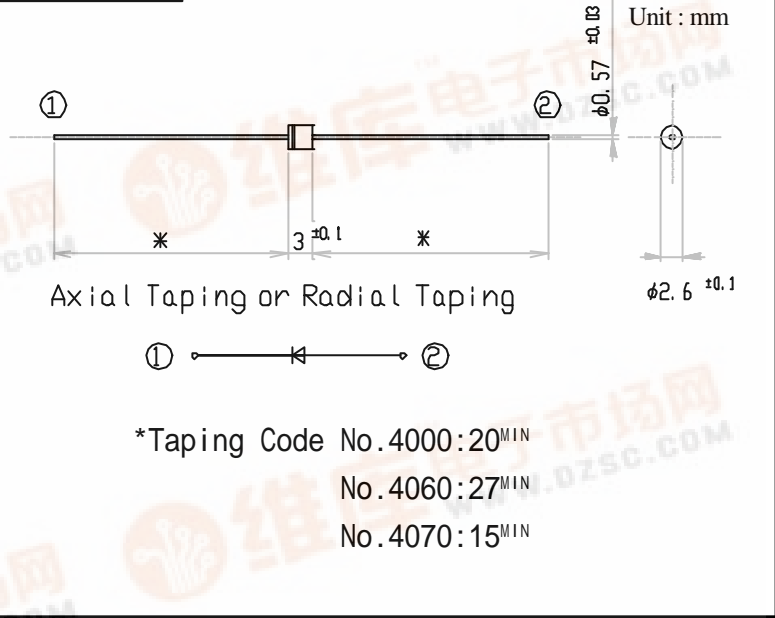
- Tj150
- PRRSM avalanche guaranteed
- 5 mm pitch mounting applicable

### APPLICATION

- Switching power supply
- DC/DC converter
- Home Appliances, Office Equipment
- Telecommunication

### OUTLINE DIMENSIONS

Case : AX057



### RATINGS

Absolute Maximum Ratings (If not specified Tl=25 )

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 ~ 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	V <sub>RM</sub>		40	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, Ta=59	1	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125	30	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μs, Tj=25	60	W

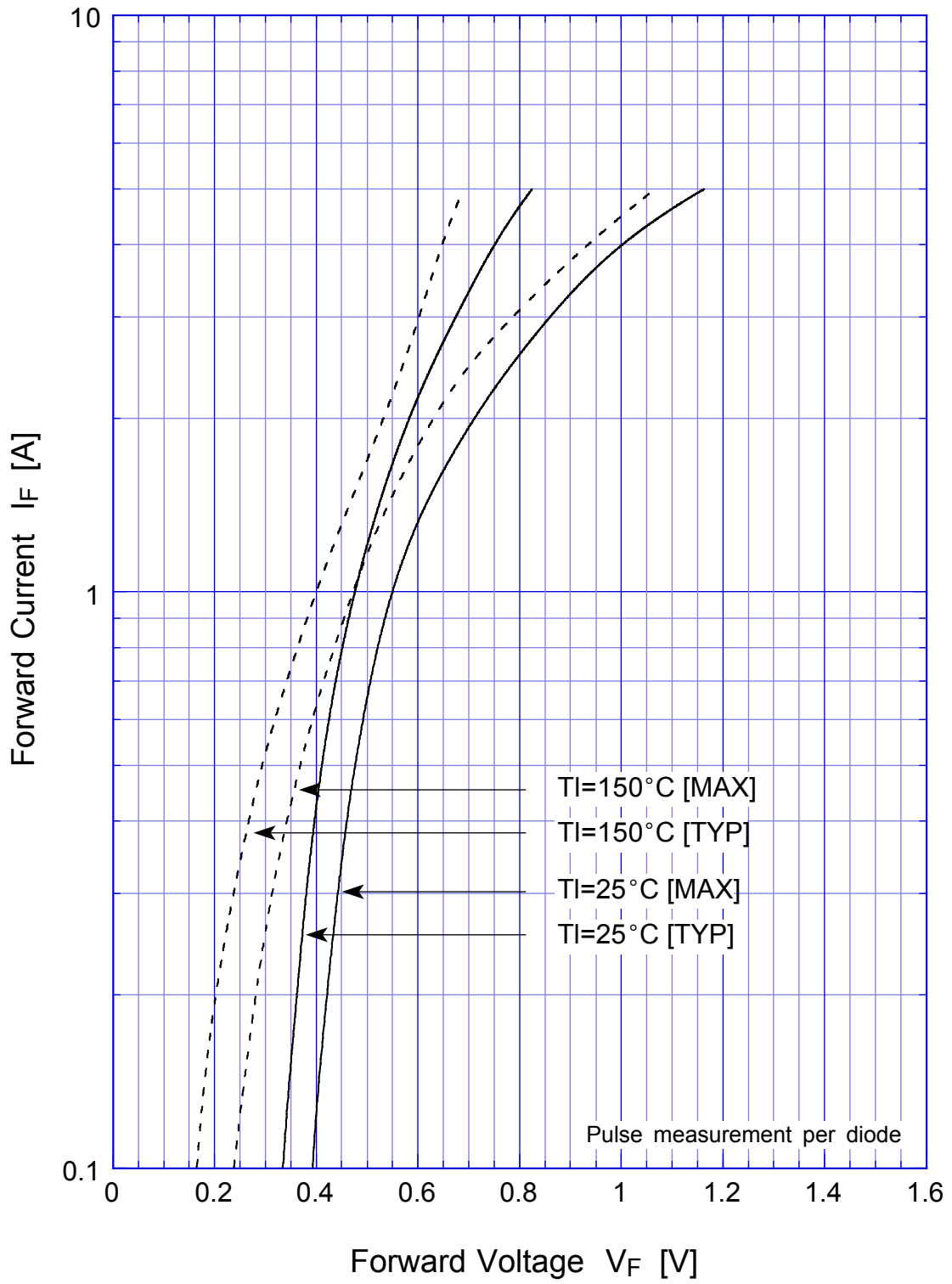
Electrical Characteristics (If not specified Tl=25 )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1A, Pulse measurement	Max.0.55	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =40V, Pulse measurement	Max.0.8	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V	Typ.50	pF
Thermal Resistance	j-l	junction to lead	Max.10	/W
	ja	junction to ambient, On P.C.B.	Max.113	



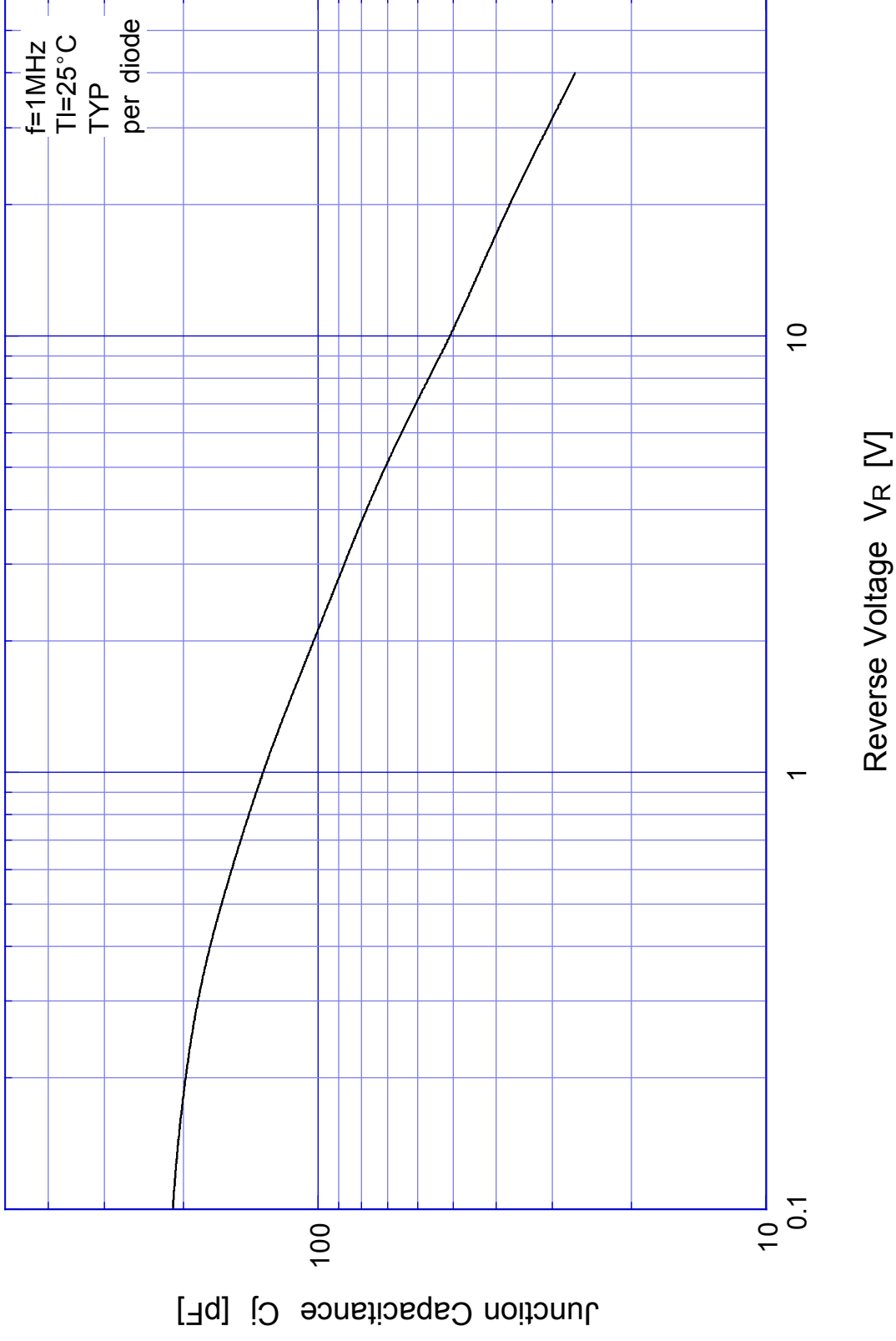
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## Forward Voltage



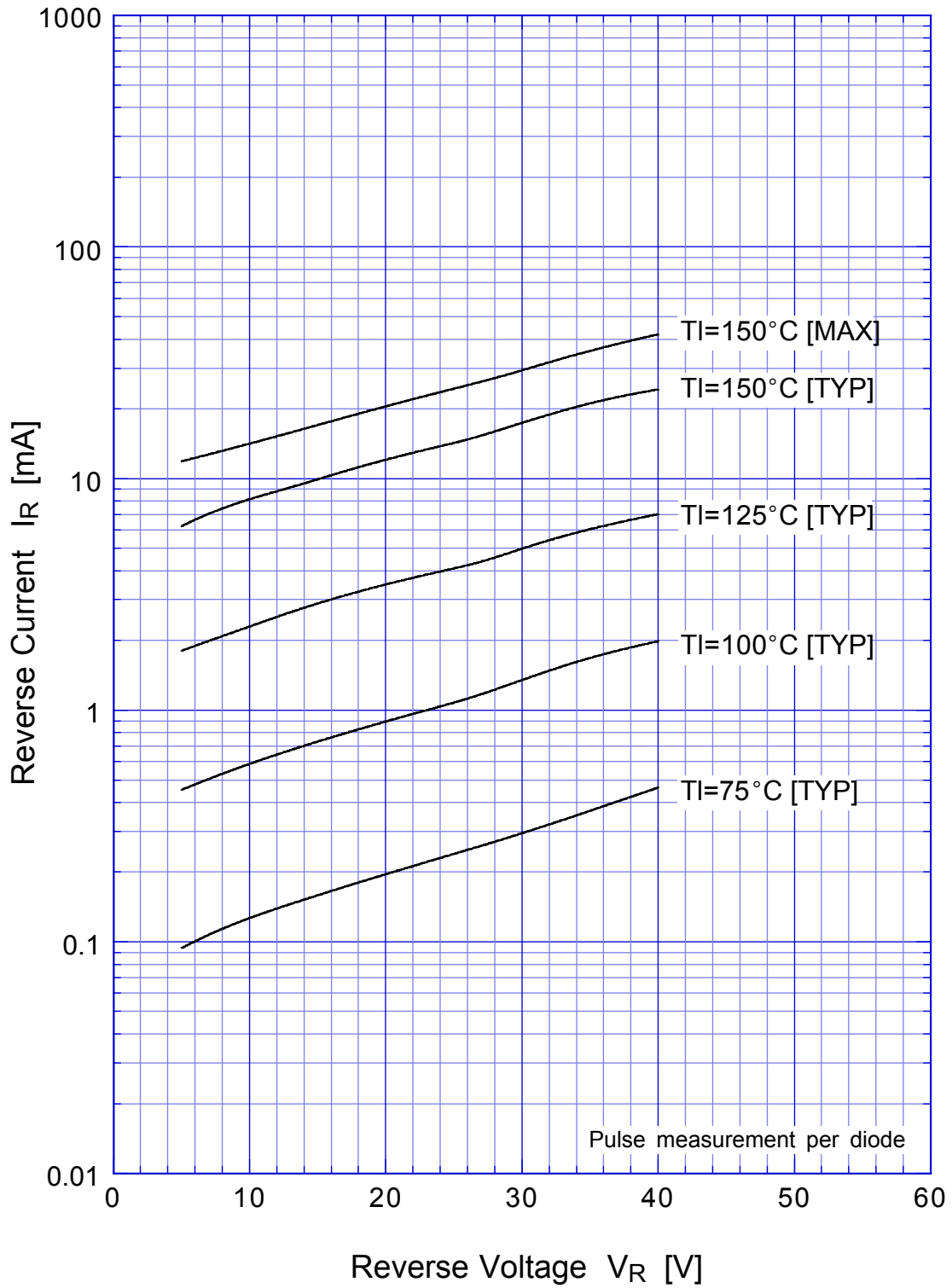
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## Junction Capacitance



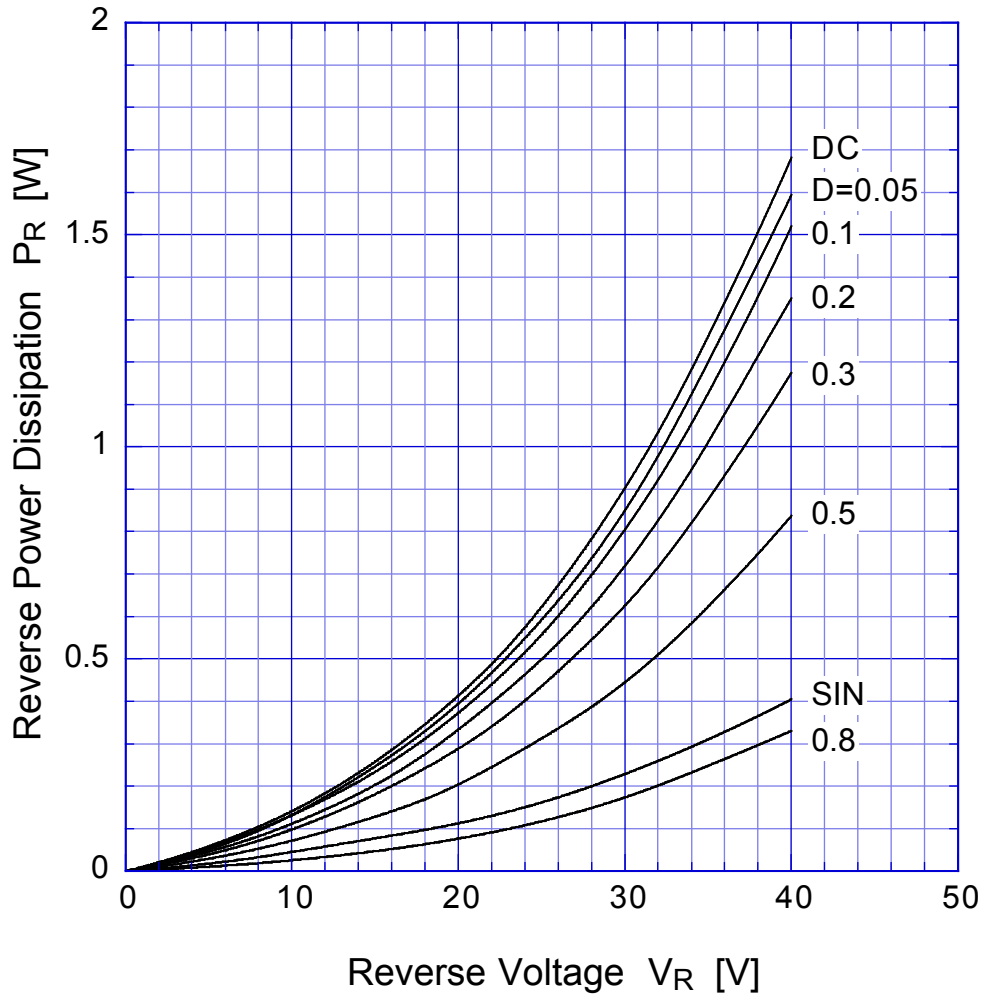
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## Reverse Current

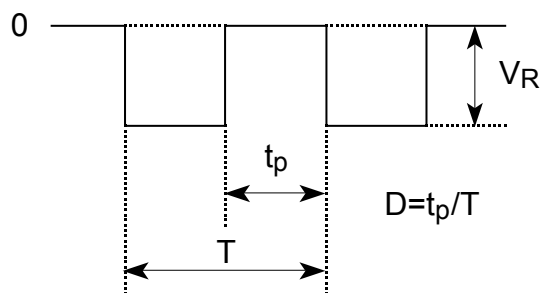


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## Reverse Power Dissipation

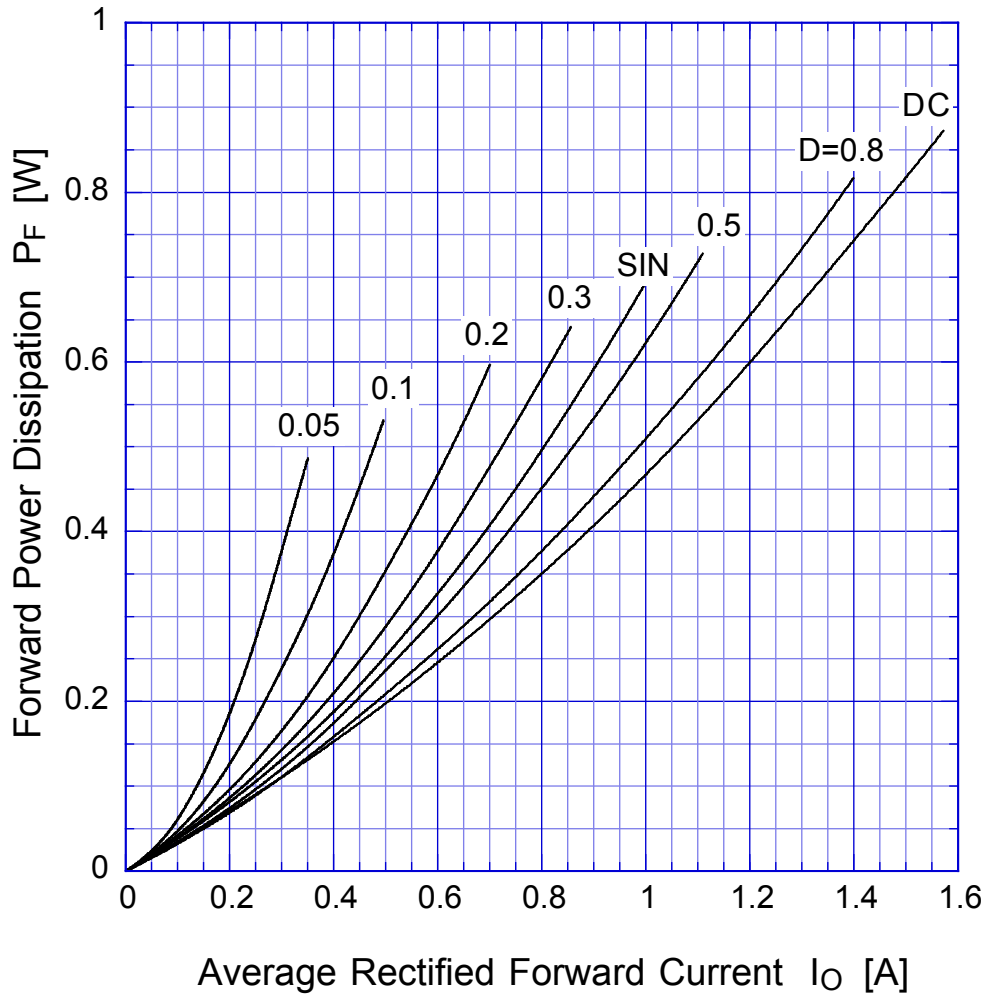


$T_j = 150^\circ\text{C}$

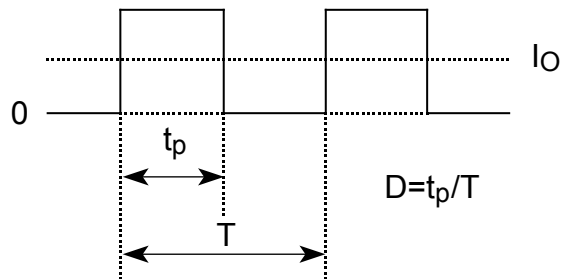


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# Forward Power Dissipation

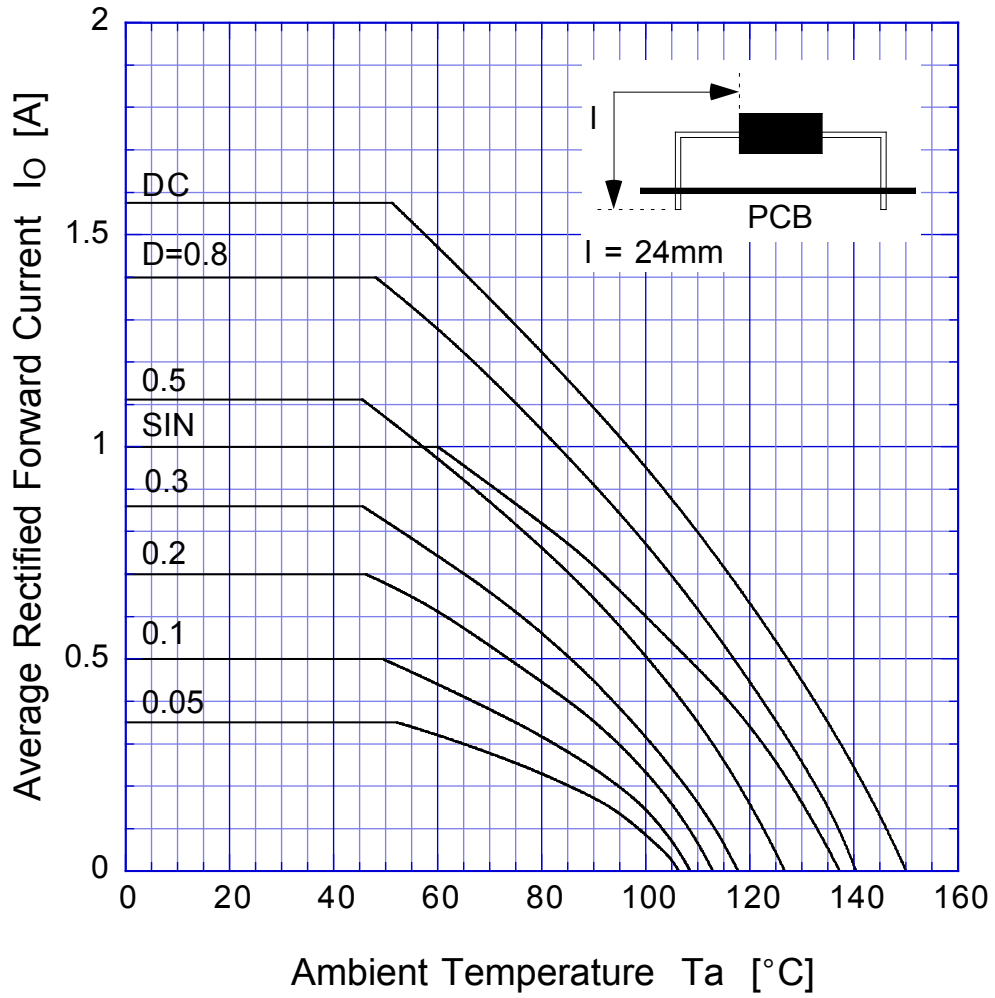


$T_j = 150^\circ\text{C}$

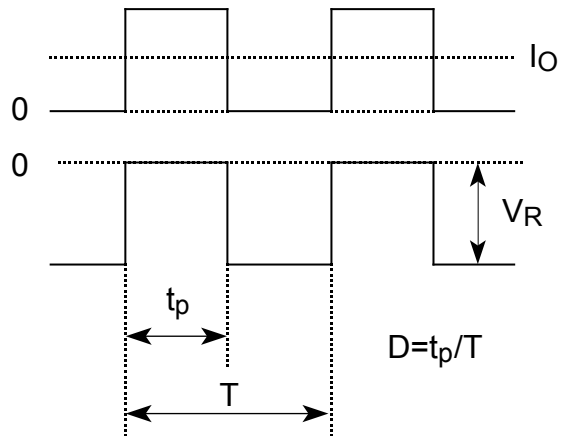


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# Derating Curve

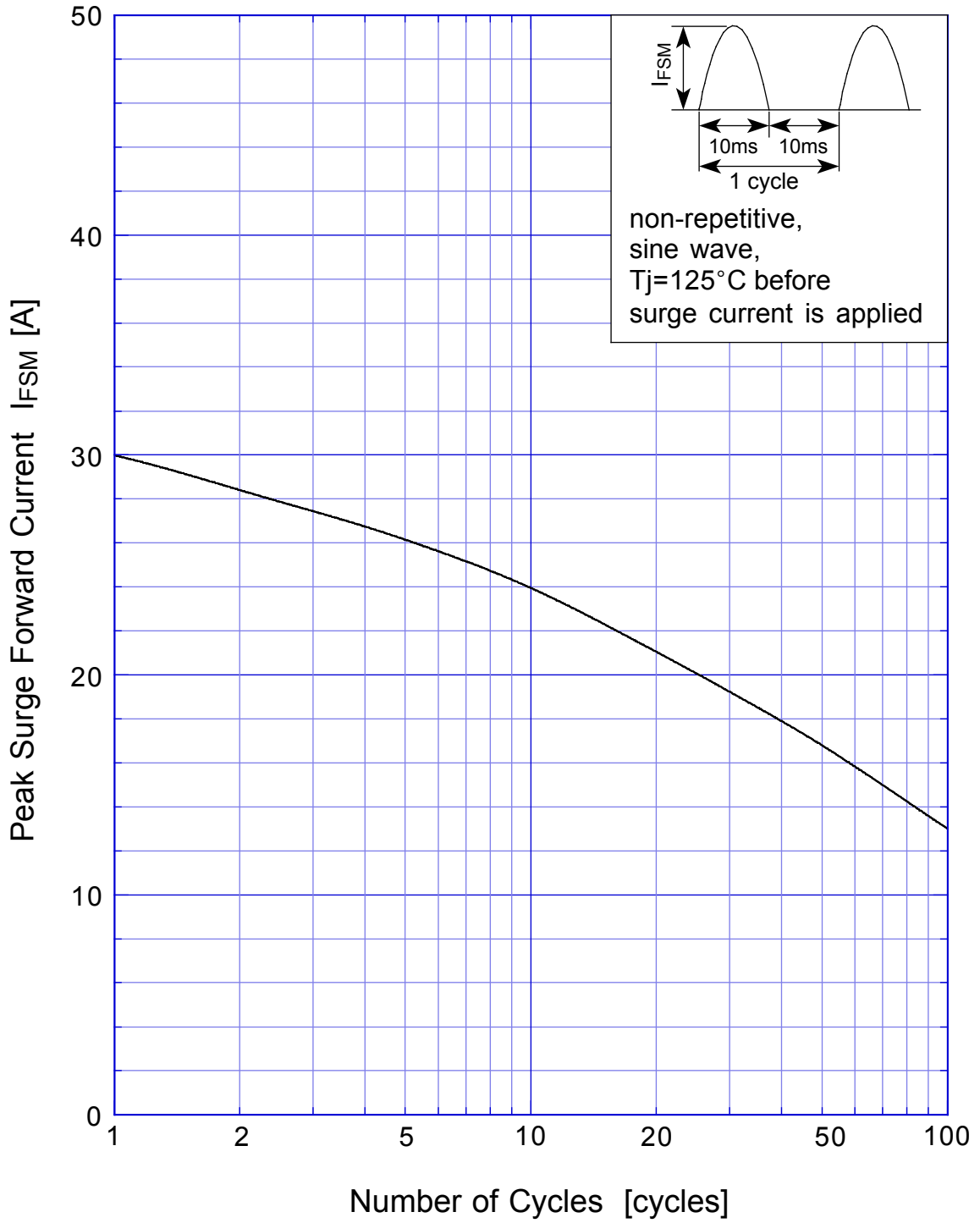


$V_R = 20\text{V}$



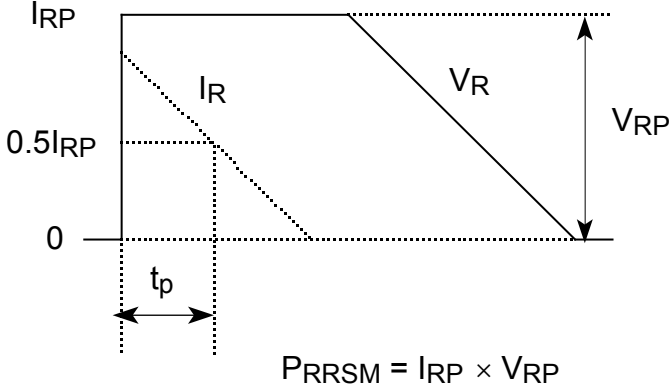
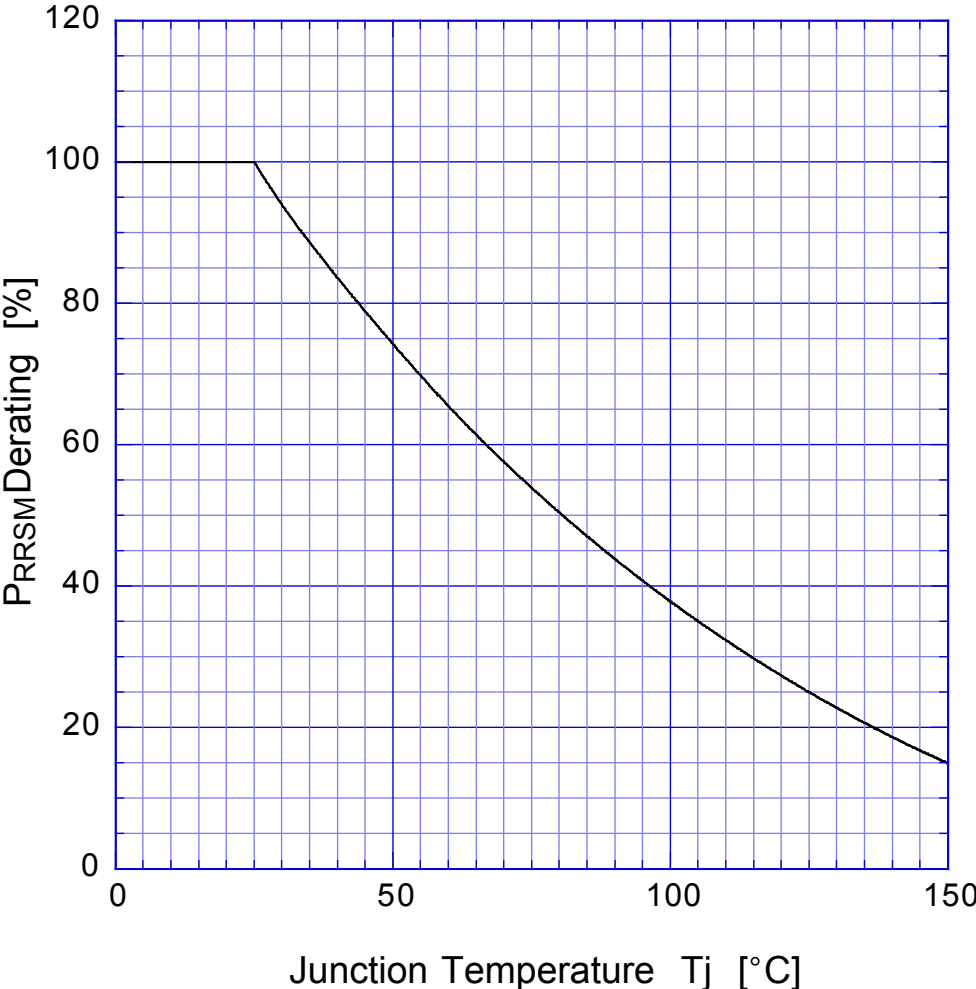
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## Peak Surge Forward Capability





# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

