

D1FS4A

40V 1.5A

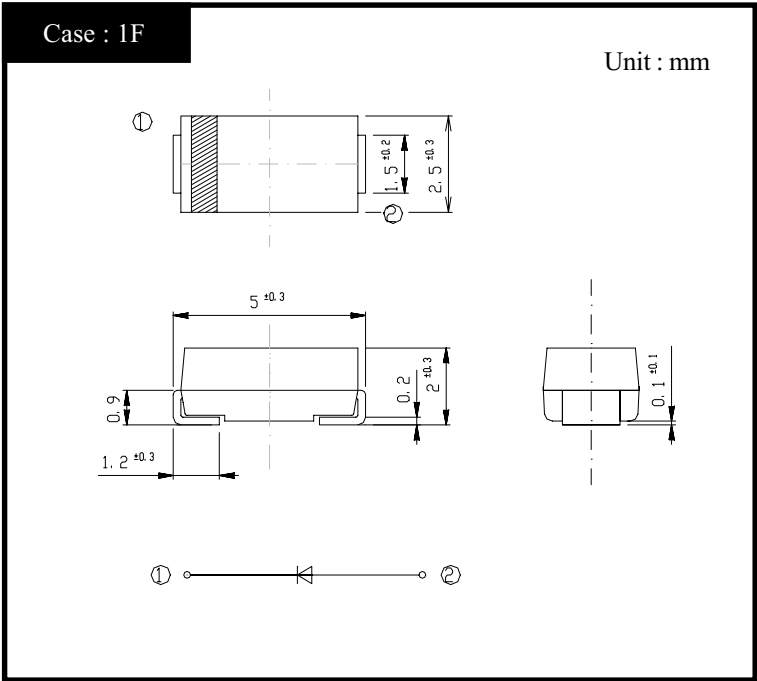
FEATURES

- Small SMT
- Tj150℃
- Low VF=0.45V
- PRRSM avalanche guaranteed

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

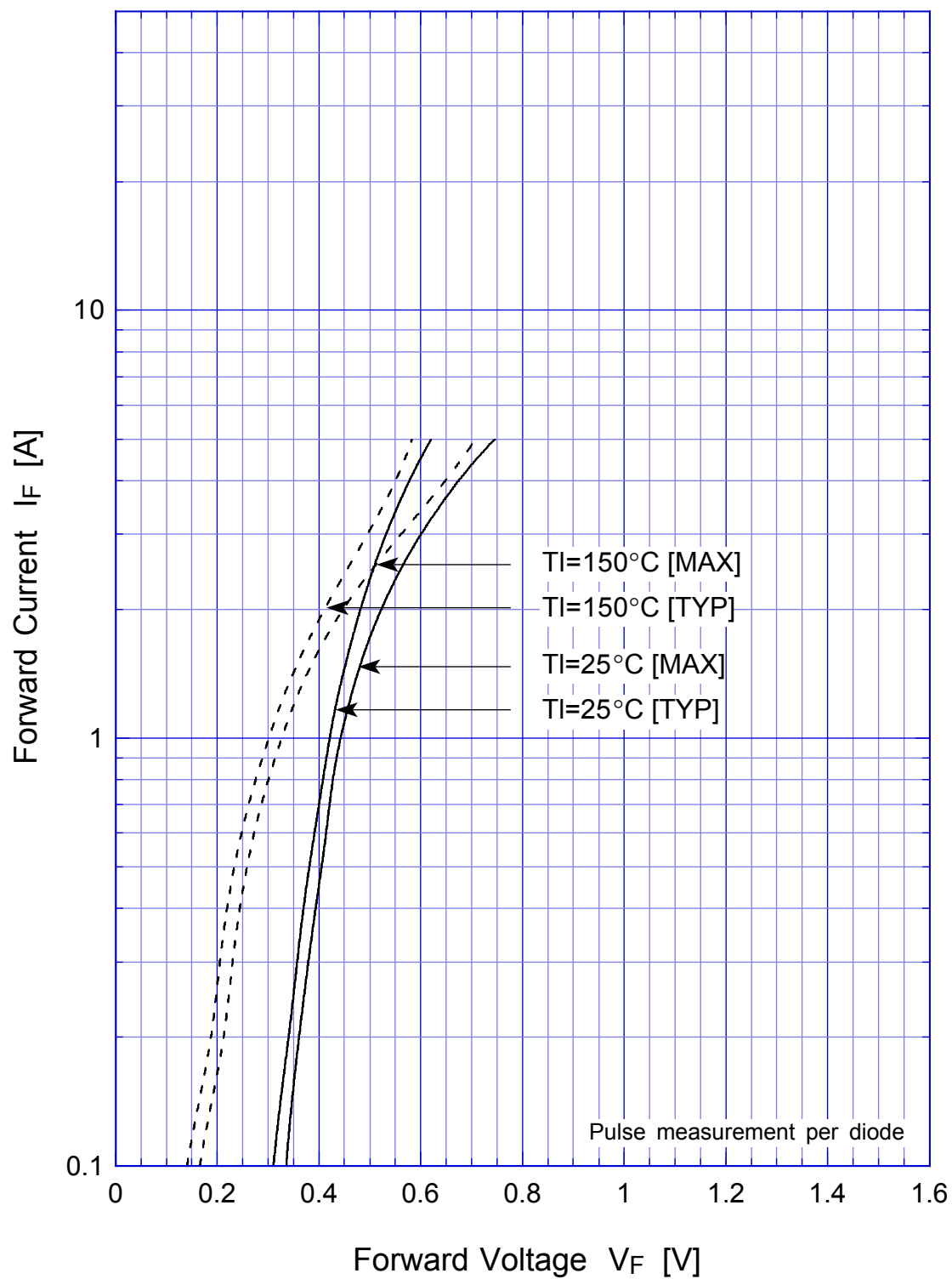
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55~150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	IO	50Hz sine wave, R-load Ta=28℃ On alumina substrate	1.5	A
		50Hz sine wave, R-load Ta=36℃ On glass-epoxy substrate	1.1	
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	60	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10 μ s, Rating of per diode, Tj=25℃	160	W

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

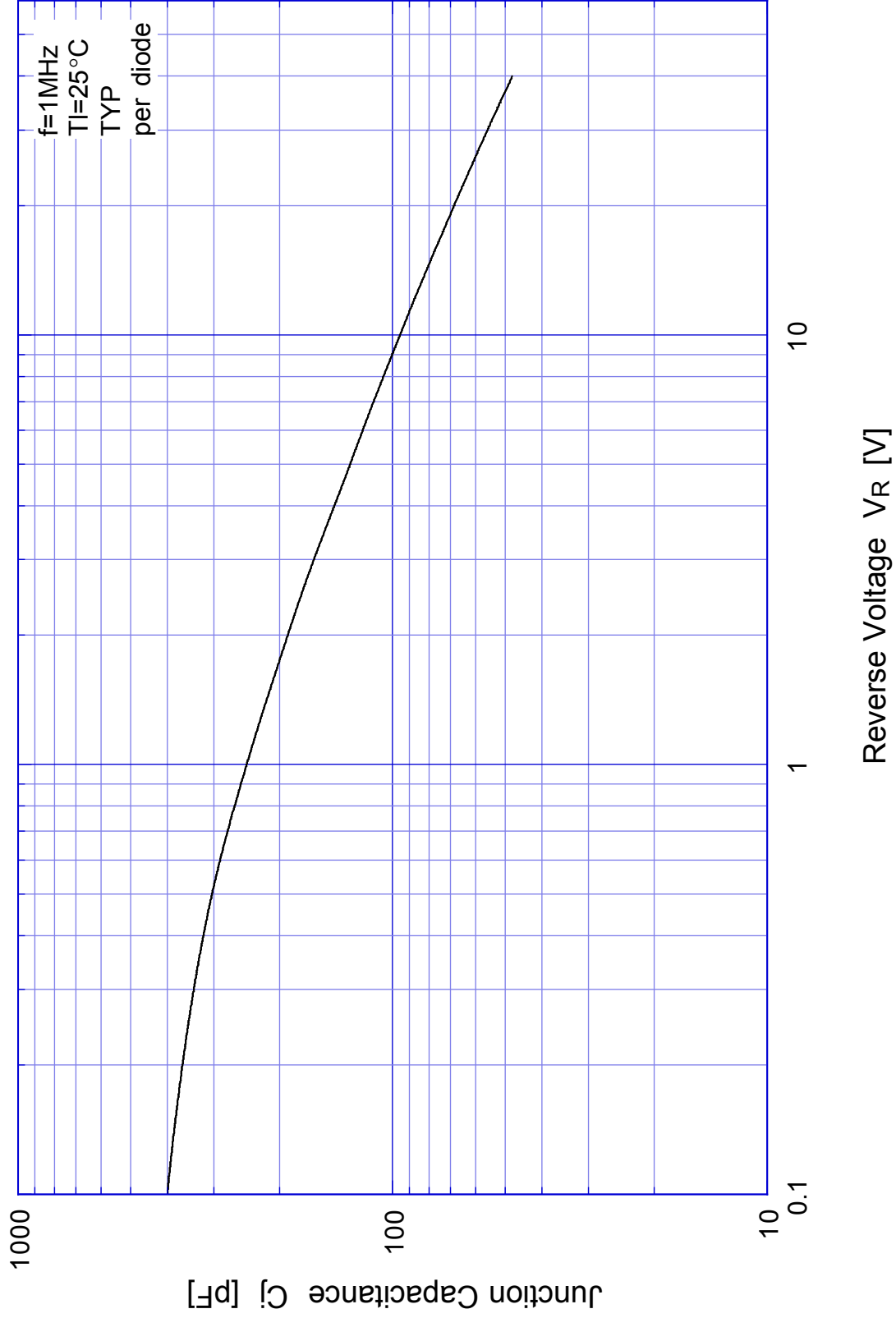
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=1.1A, Pulse measurement	Max.0.45	V
		IF=1.5A, Pulse measurement	Max.0.48	
Reverse Current	IR	VR=VRM, Pulse measurement	Max.2	mA
Junction Capacitance	Cj	f=1MHz, VR=10V	Typ.95	pF
Thermal Resistance	θjl	junction to lead	Max.23	℃/W
	θja	junction to ambient On alumina substrate	Max.108	
		junction to ambient On glass-epoxy substrate	Max.157	

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Forward Voltage

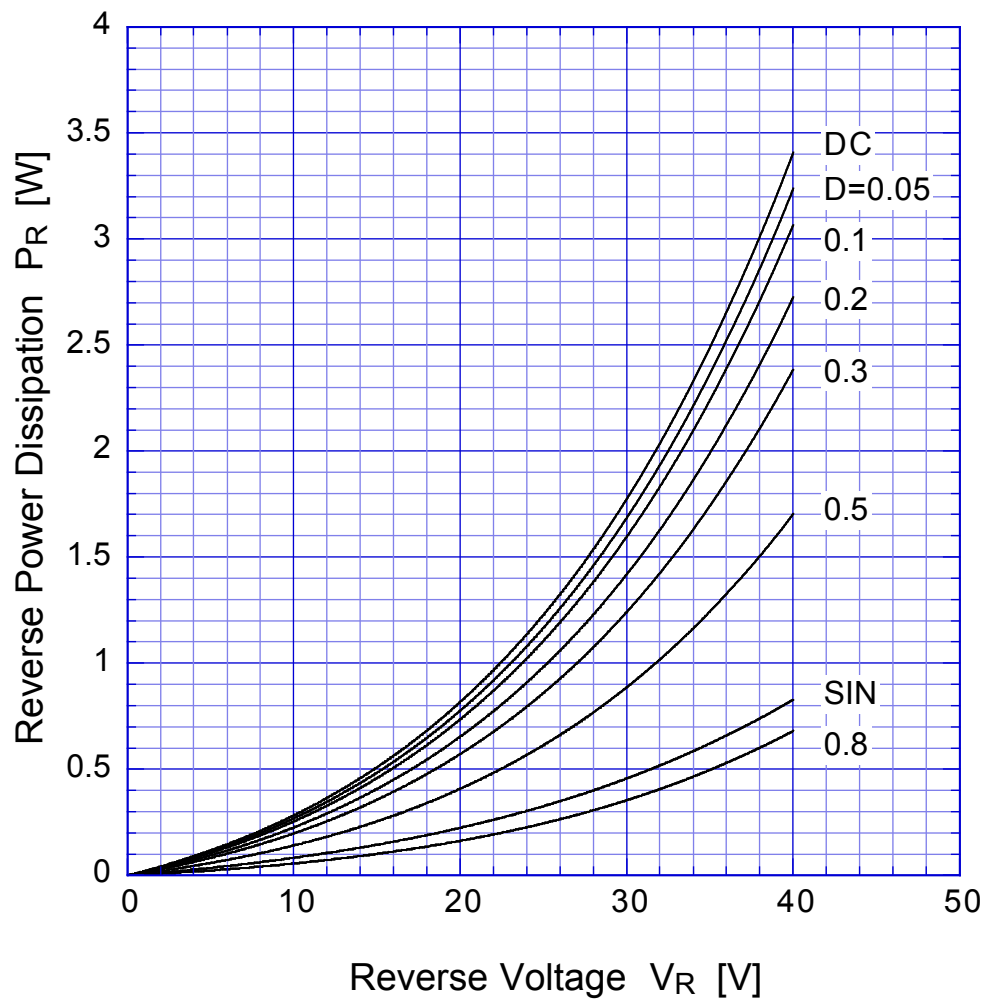


D1FS4A Junction Capacitance

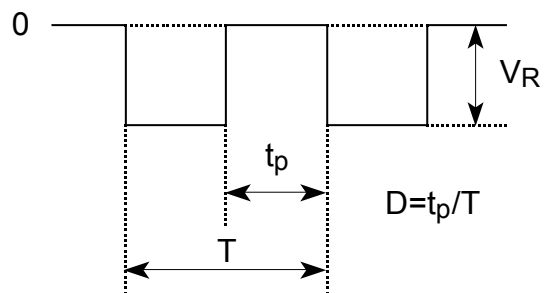


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Reverse Power Dissipation

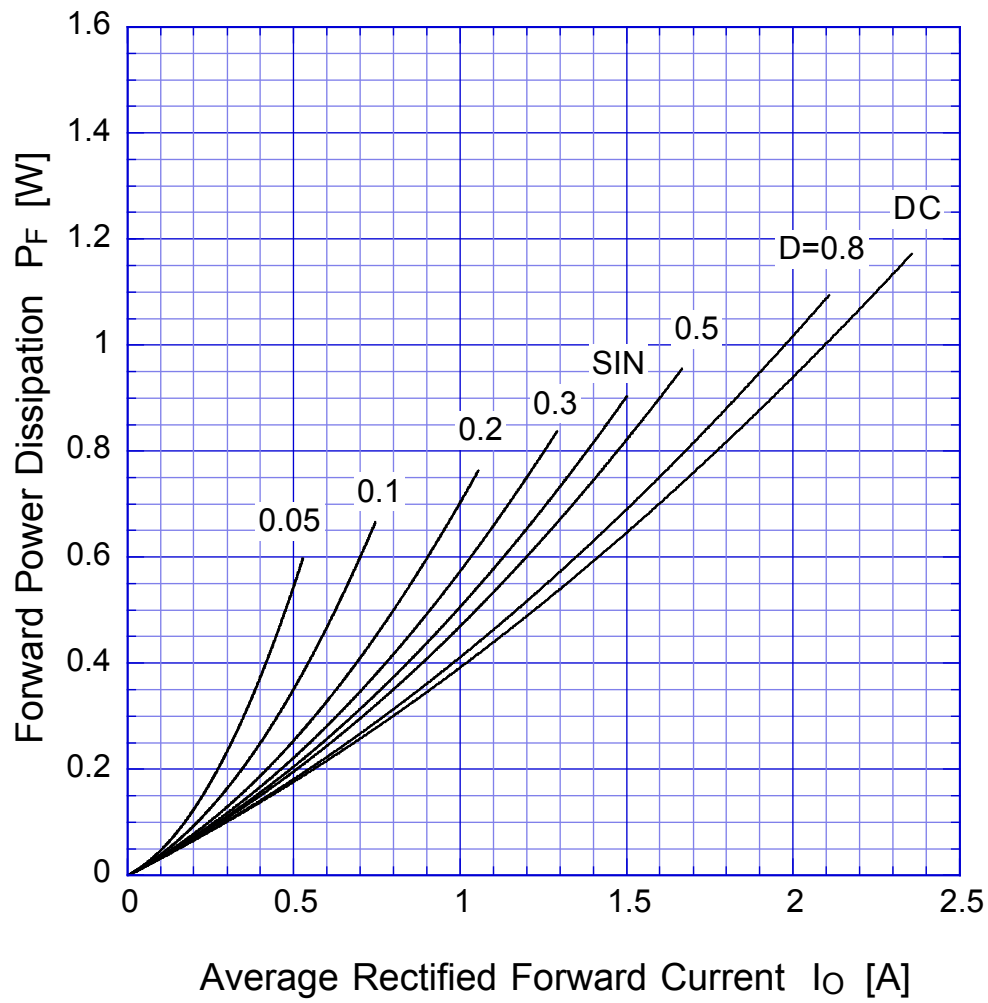


$T_j = 150^\circ\text{C}$

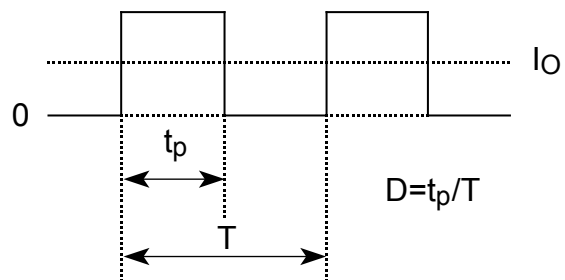


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Forward Power Dissipation

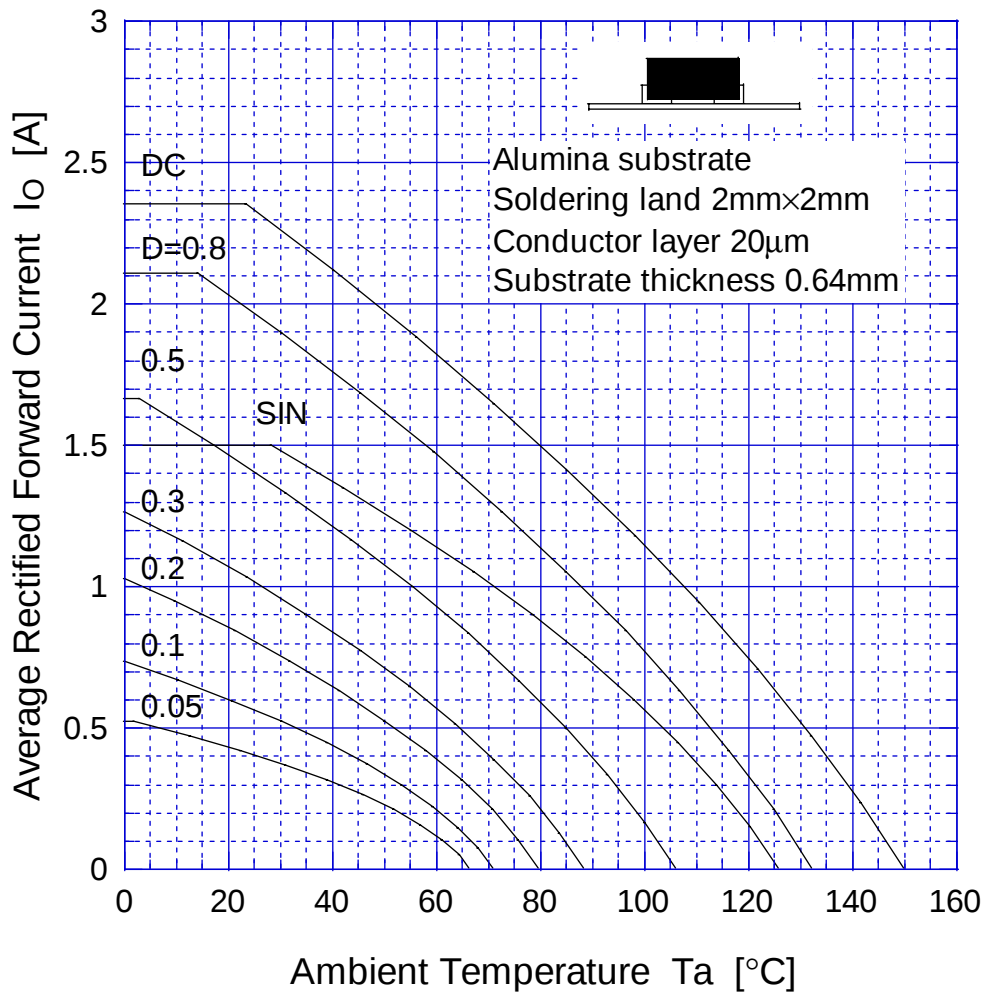


$T_j = 150^\circ\text{C}$

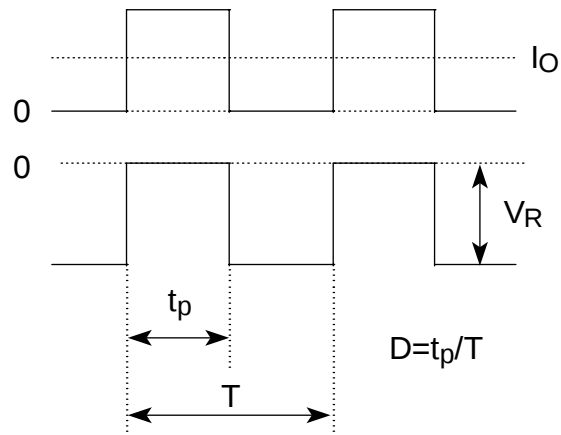


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Derating Curve

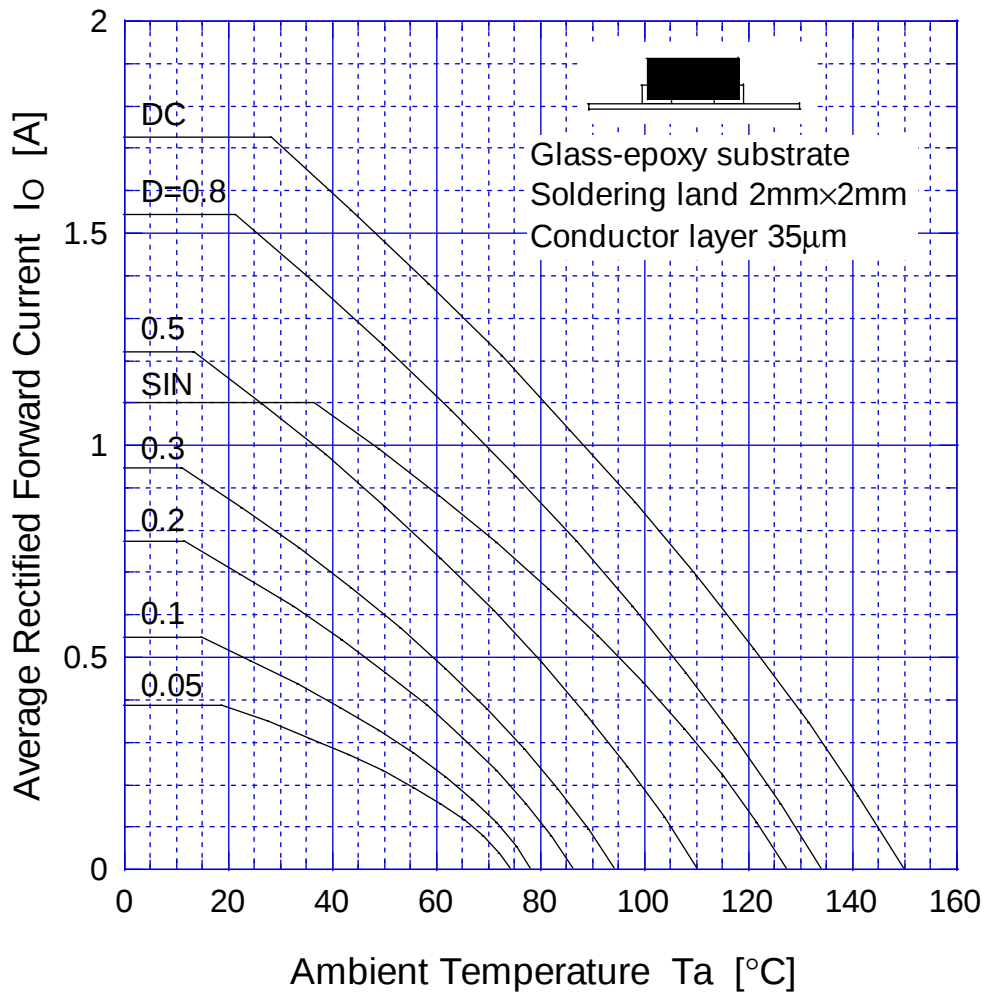


$V_R = 20V$

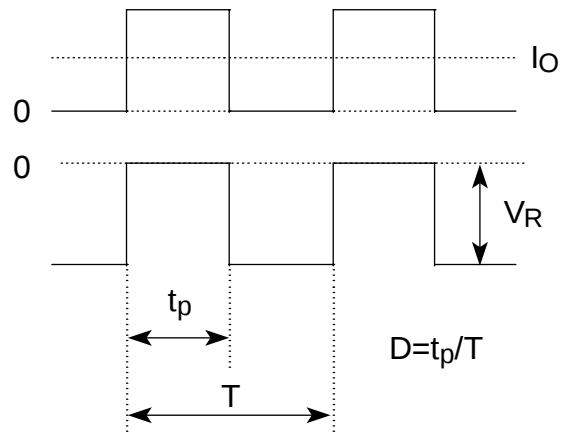


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Derating Curve

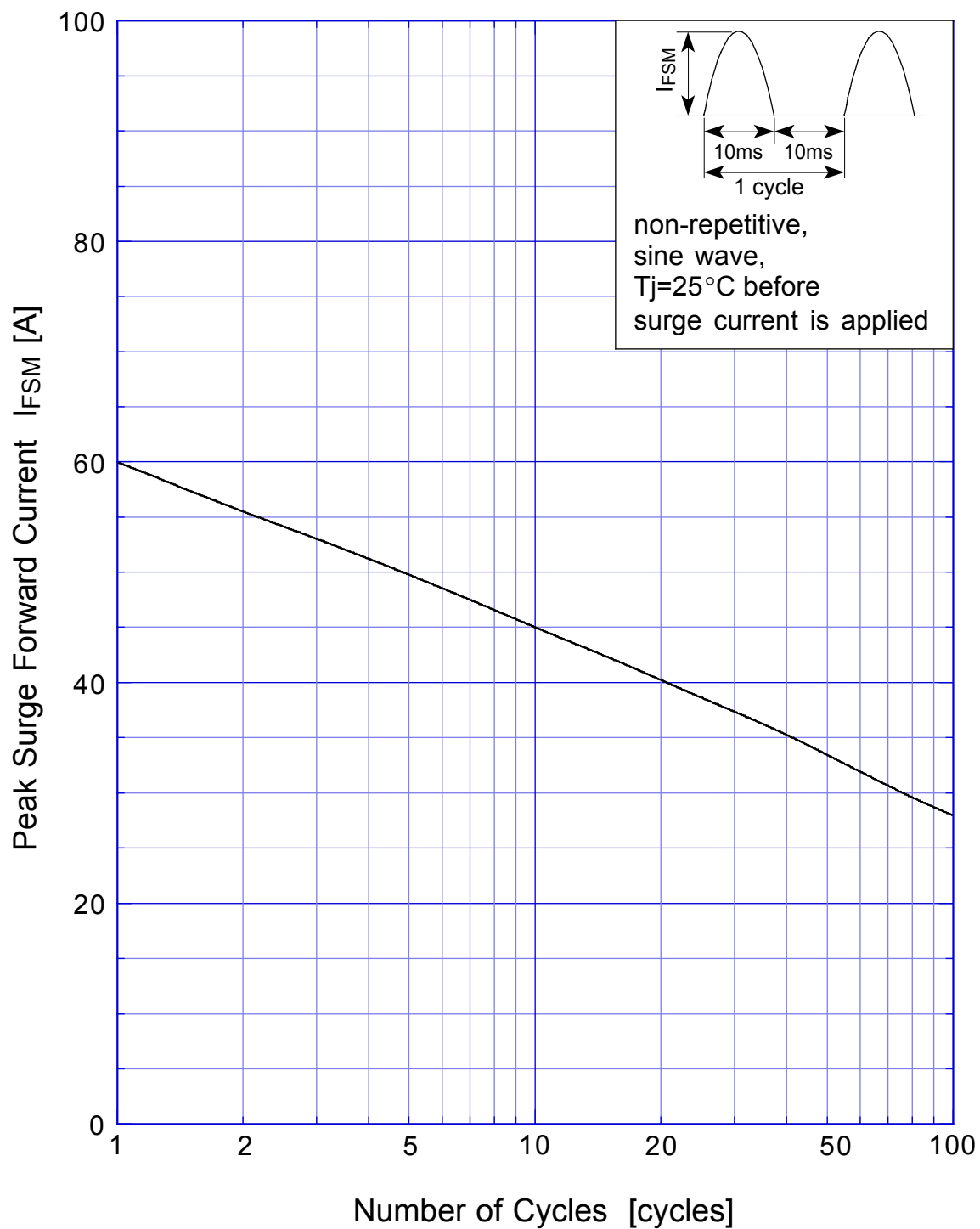


$V_R = 15V$



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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

