

M1FS4

40V 1.33A

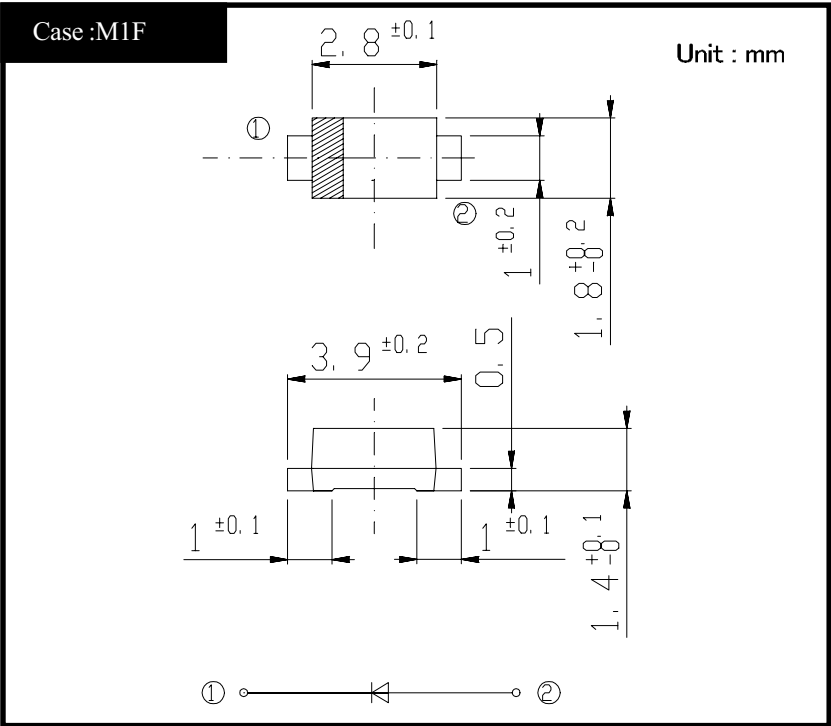
FEATURES

- Small SMT
- Tj150°C
- 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 Tl=25°C)

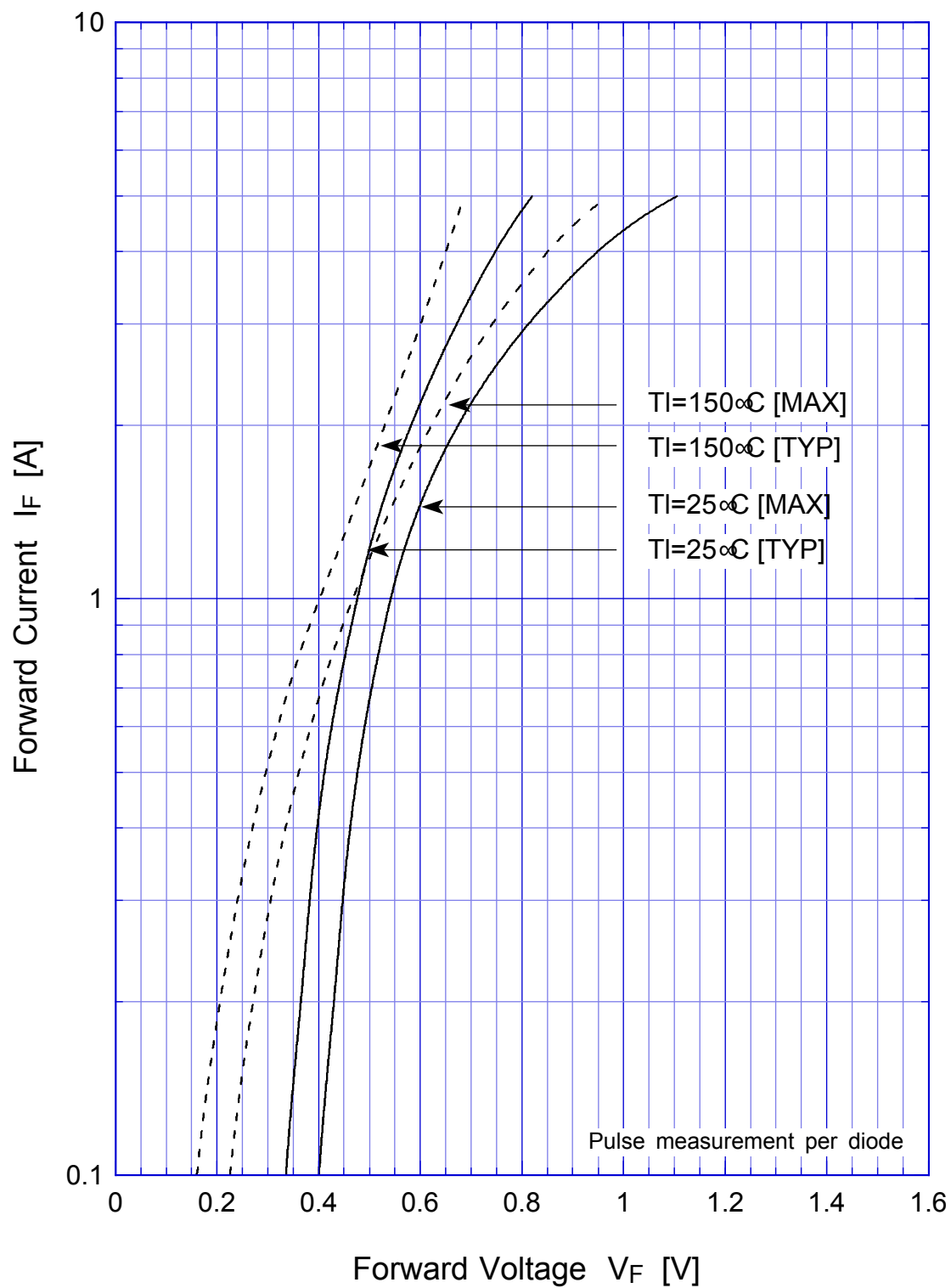
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load Ta=25°C On alumina substrate	1.33	A
		50Hz sine wave, R-load Ta=25°C On glass-epoxy substrate	0.87	
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	30	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10 μ s, Tj=25°C	60	W

●Electrical Characteristics (If not specified Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=1.1A, Pulse measurement	Max.0.55	V
Reverse Current	IR	VR=VRM, Pulse measurement	Max.0.8	mA
Junction Capacitance	Cj	f=1MHz, VR=10V	Typ.50	pF
Thermal Resistance	θjl	junction to lead	Max.20	°C/W
	θja	junction to ambient On alumina substrate	Max.108	
	θja	junction to ambient On glass-epoxy substrate	Max.186	

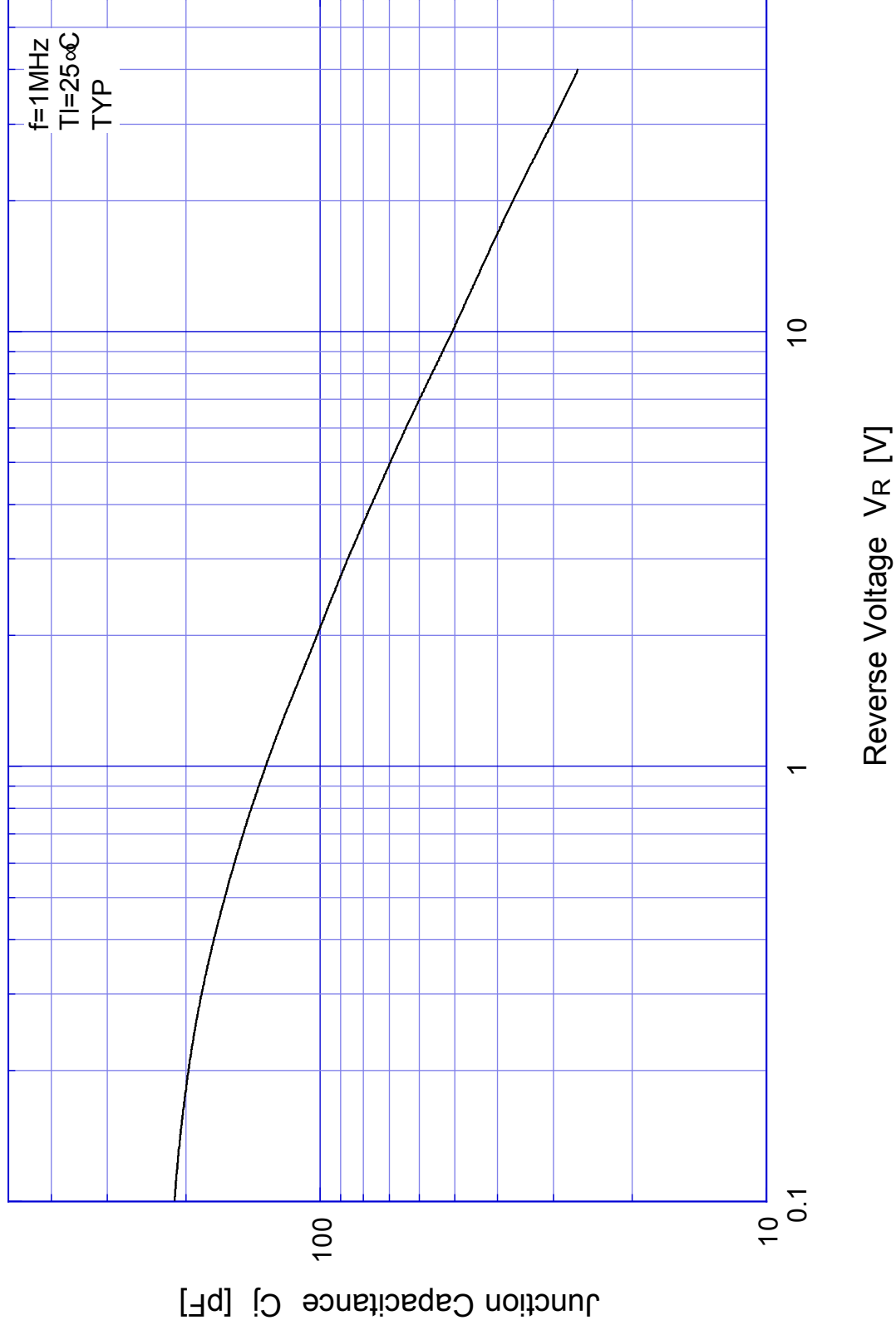
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Forward Voltage



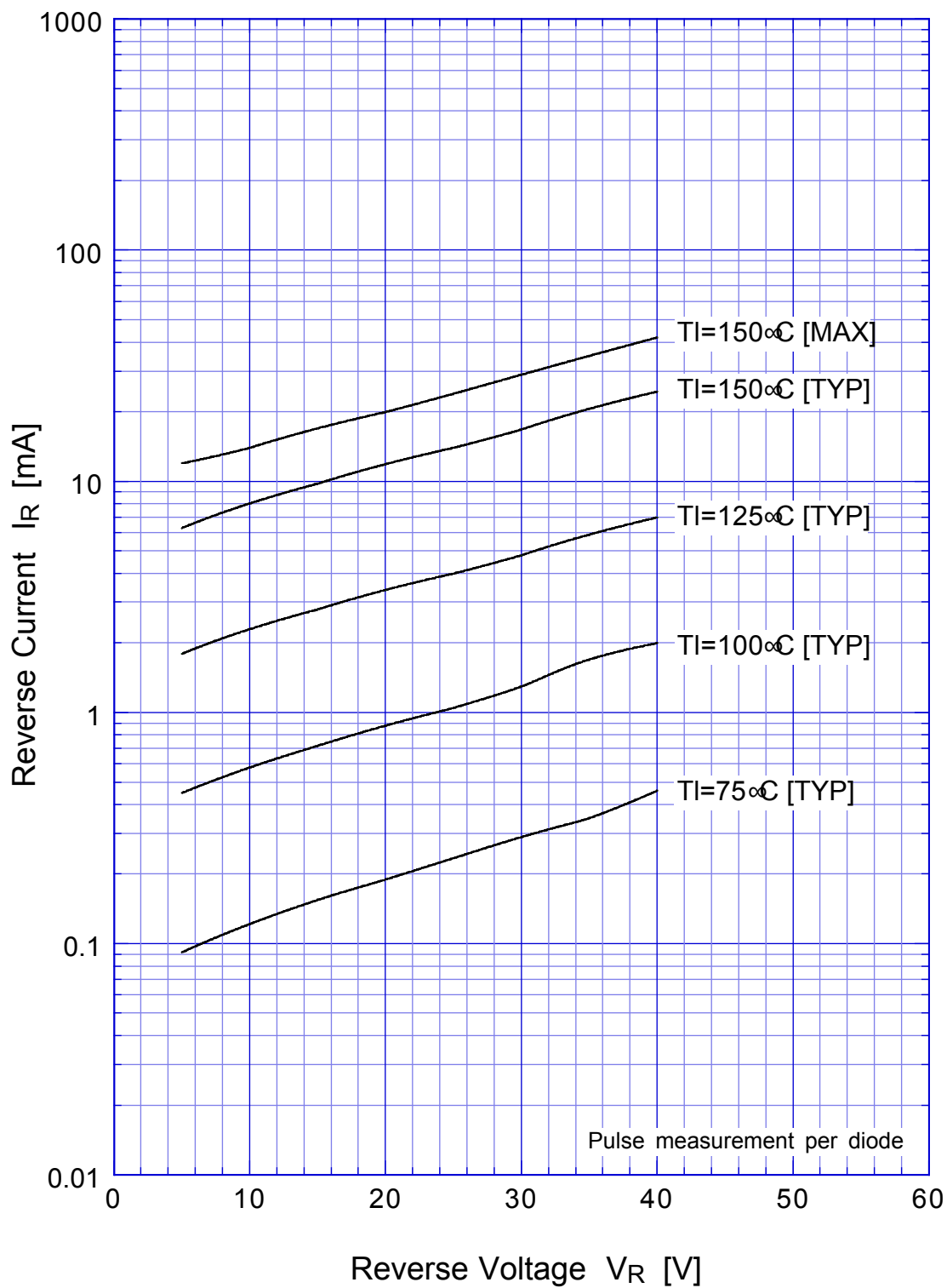
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Junction Capacitance



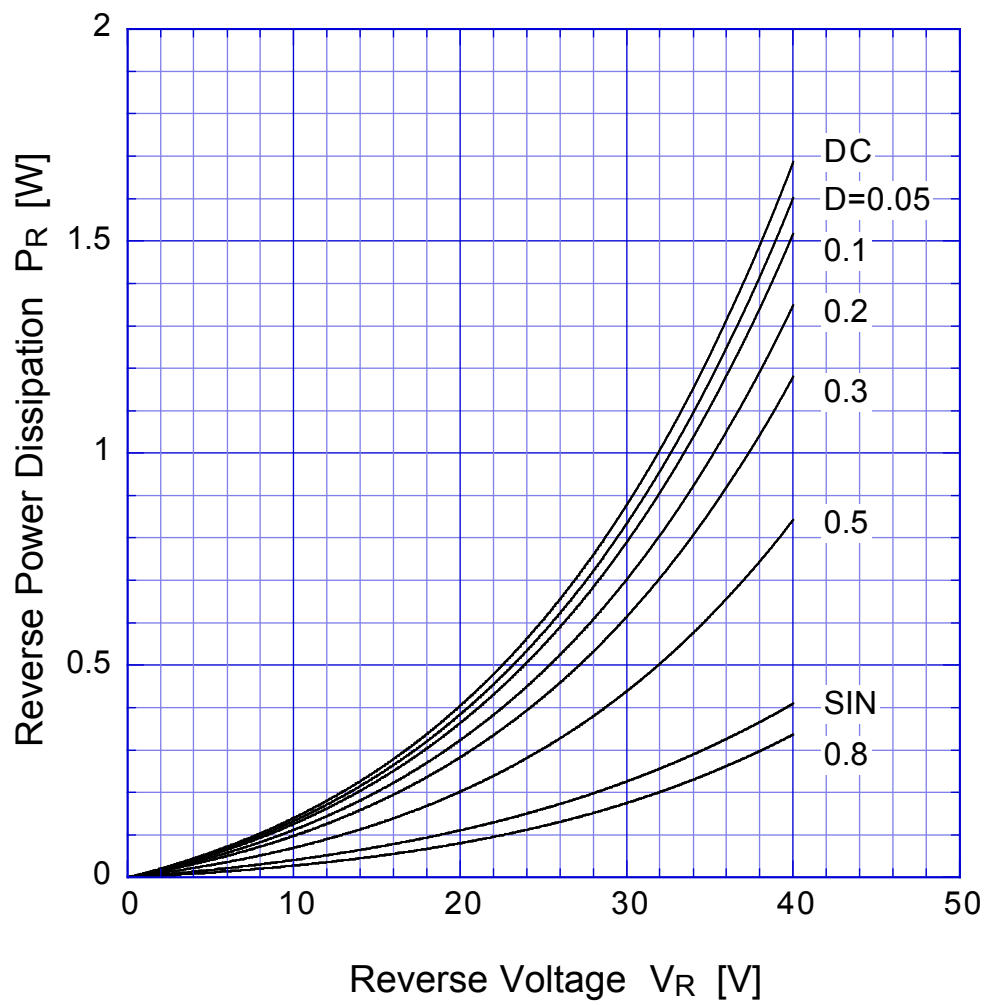
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Reverse Current

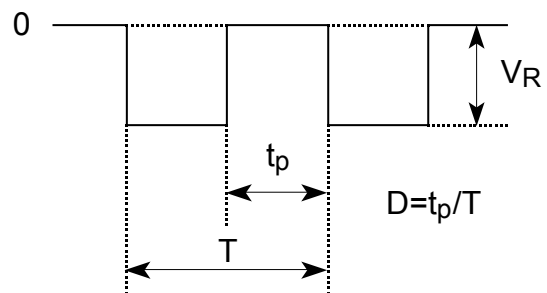


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Reverse Power Dissipation

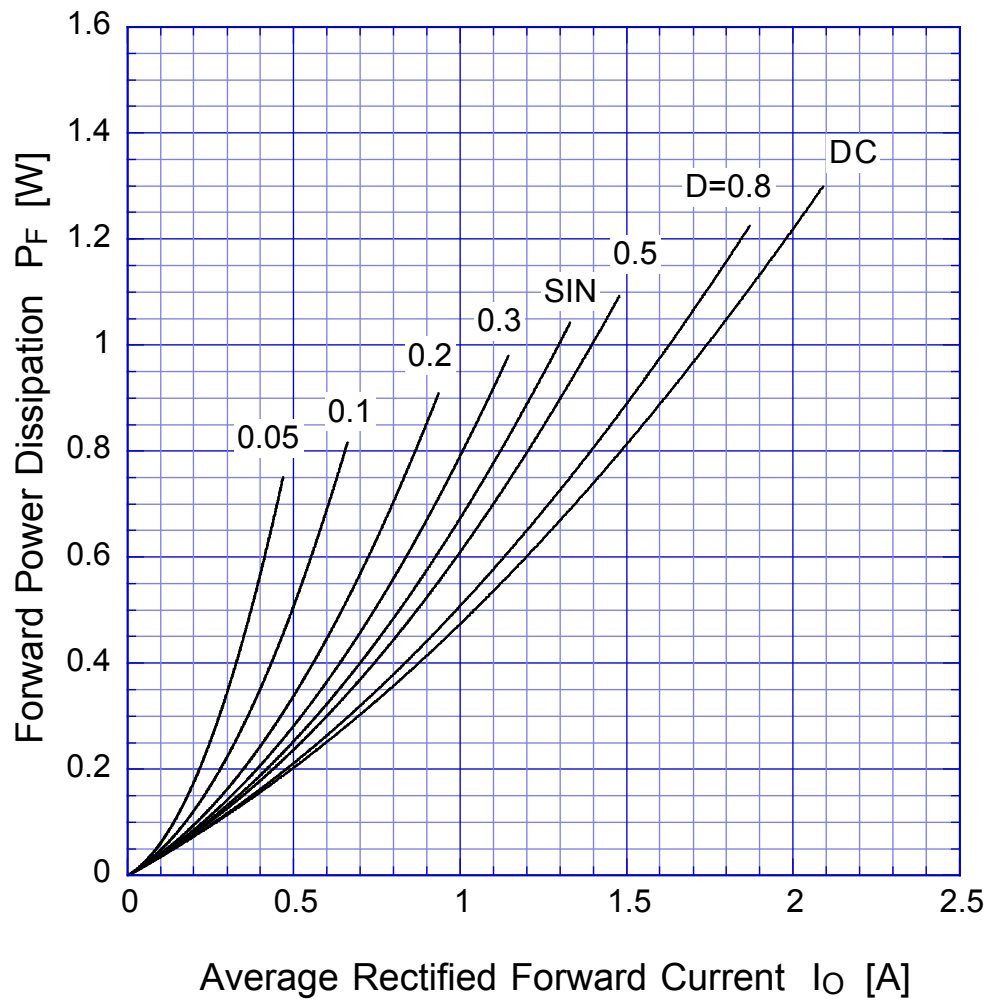


$T_j = 150^\circ\text{C}$



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Forward Power Dissipation

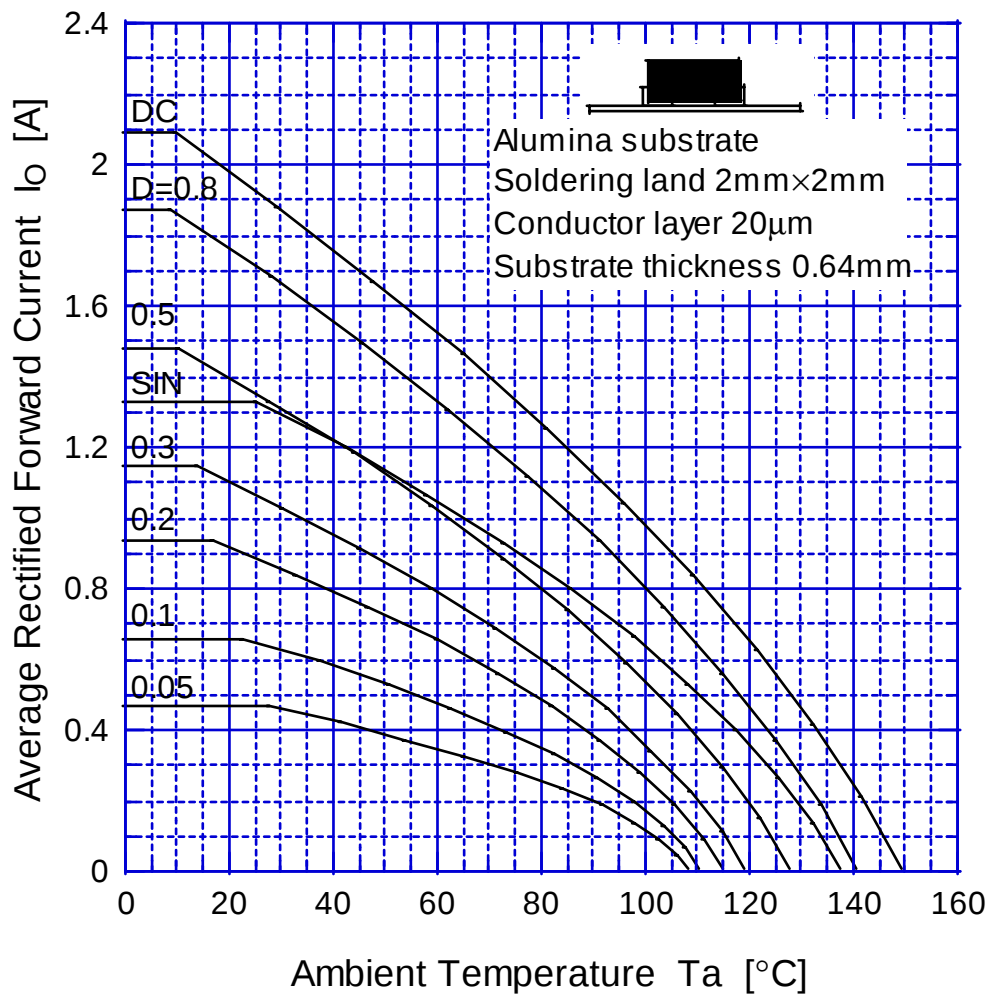


$T_j = 150^\circ\text{C}$

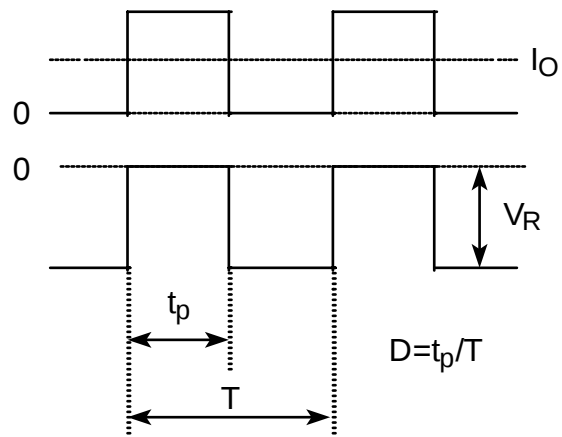


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Derating Curve

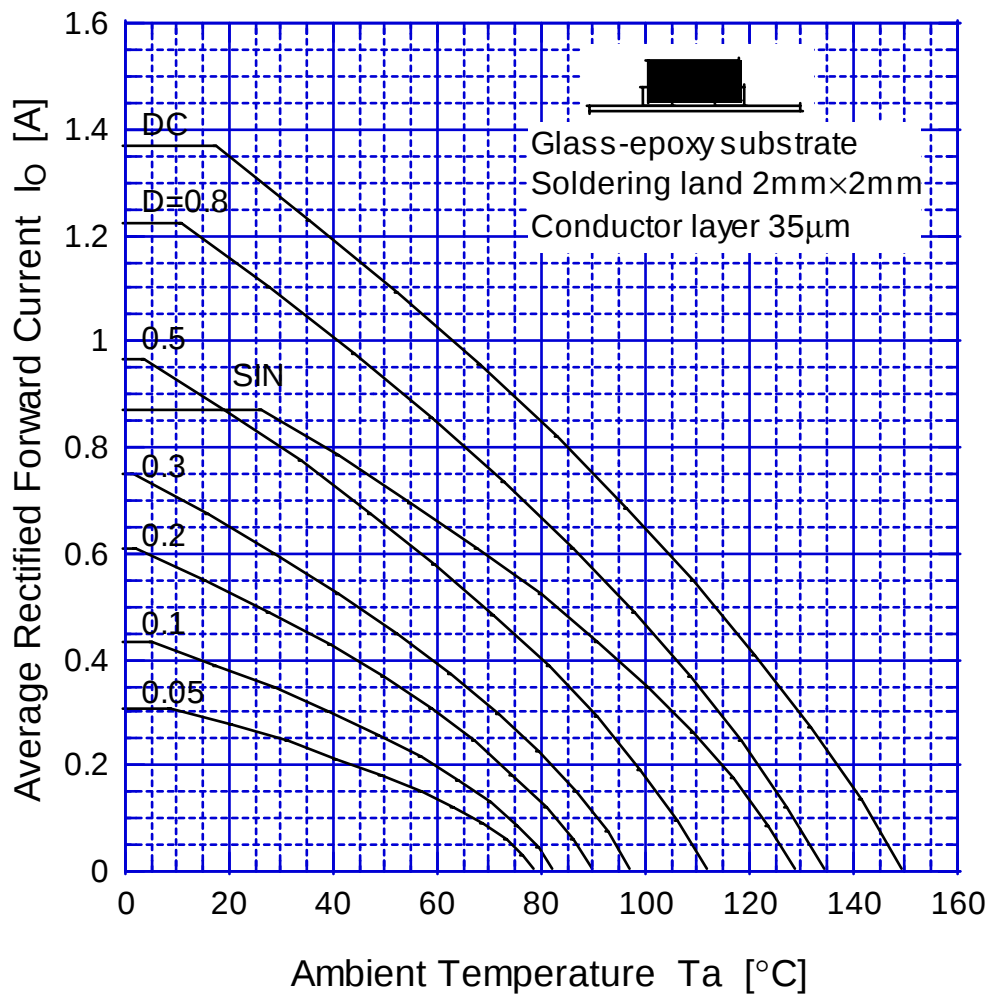


$V_R = 20V$

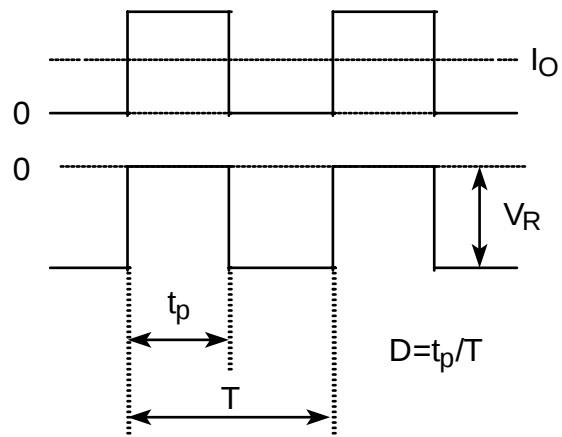


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Derating Curve

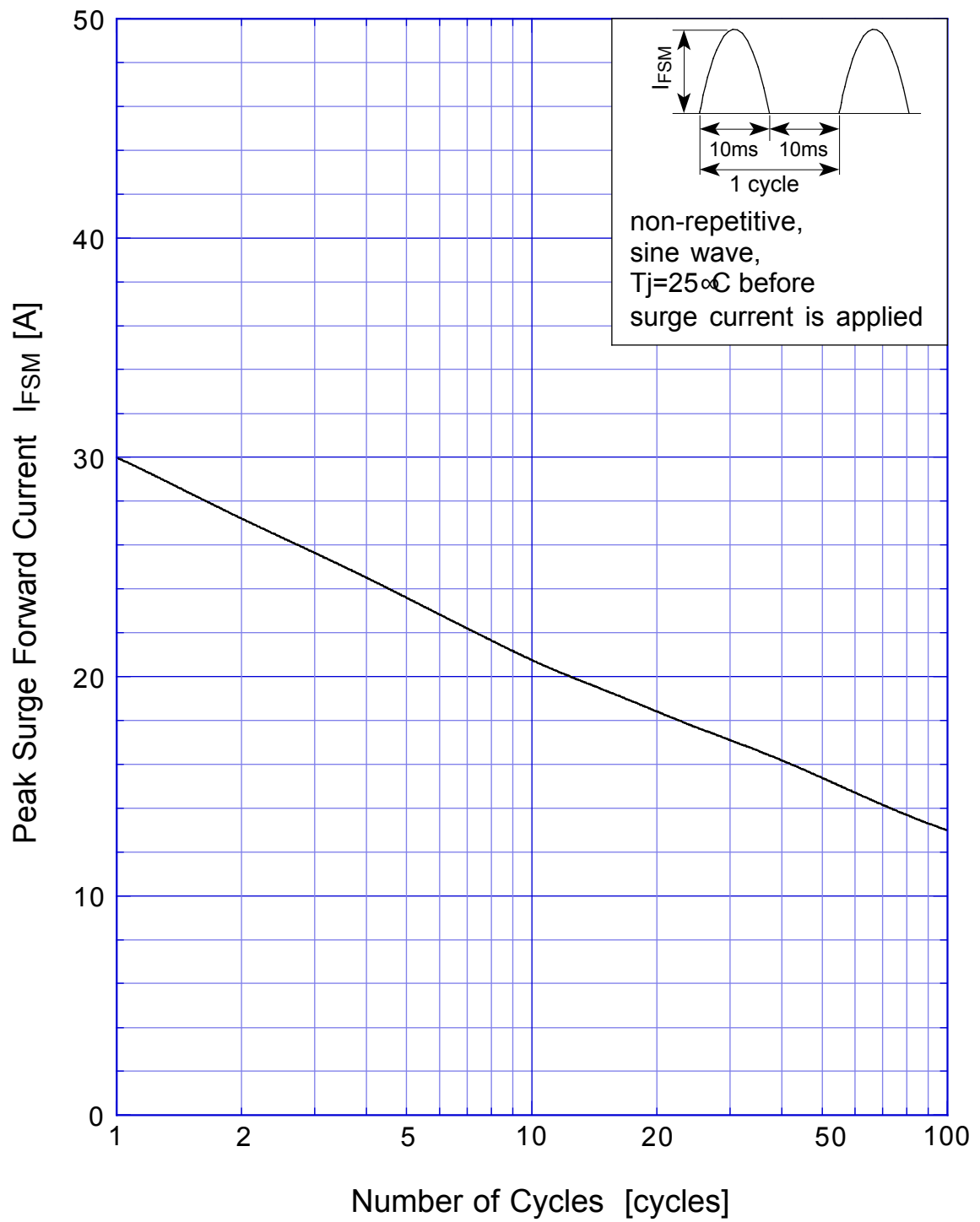


$V_R = 20V$



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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

