

DE5S4M

40V 5A

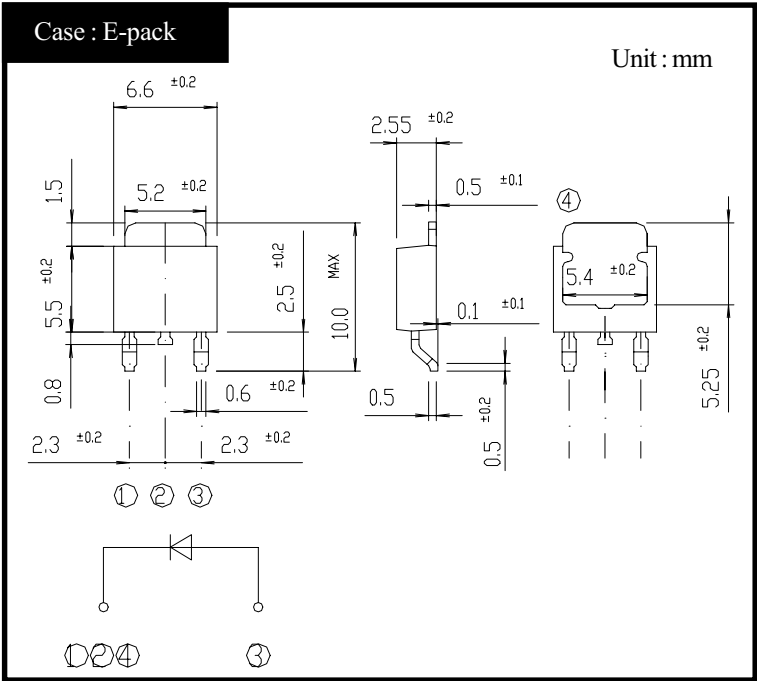
FEATURES

- SMT
- Tj150°C
- PRRSM avalanche guaranteed
- High current capacity with Small Package

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

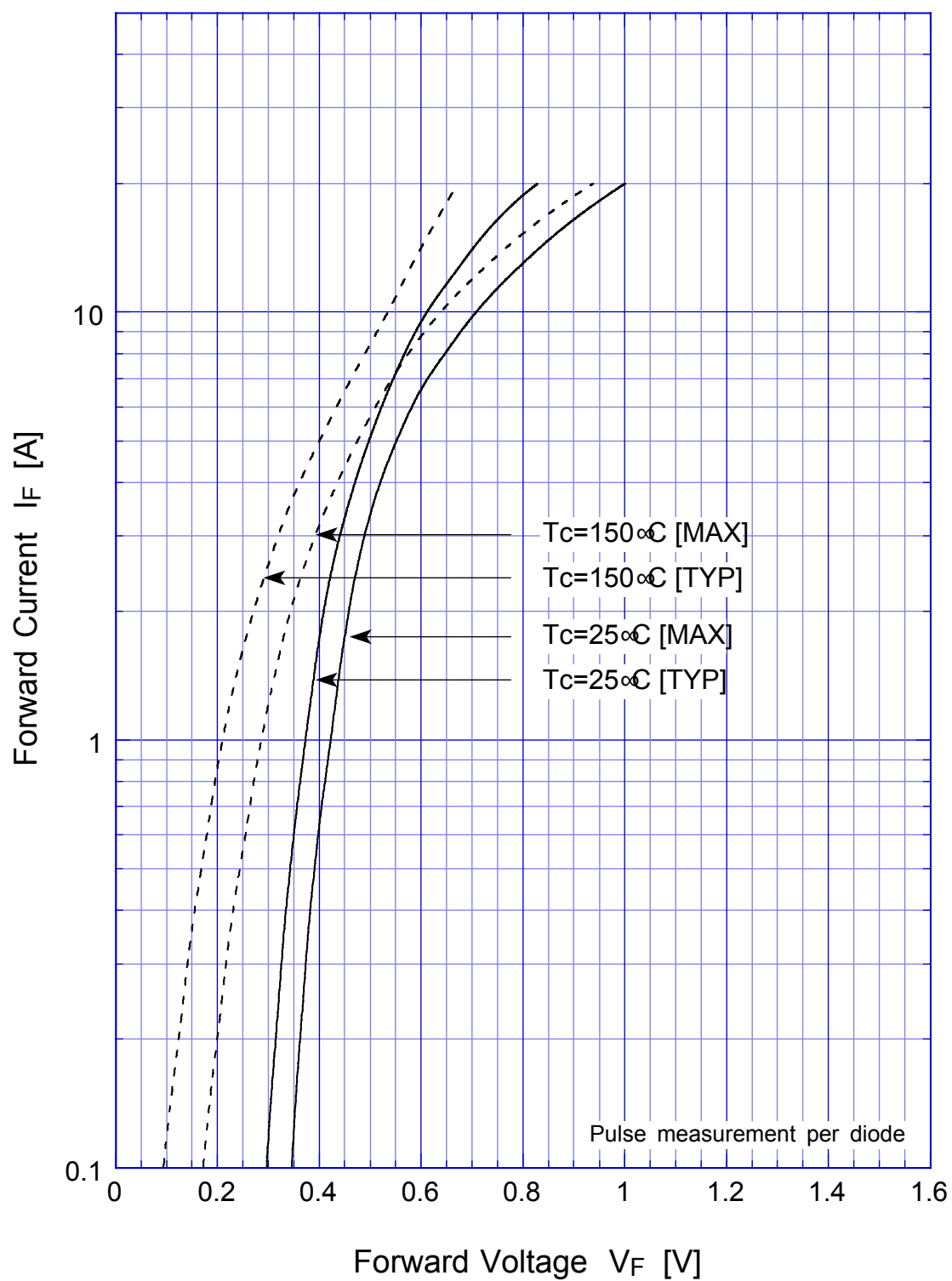
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load With heatsink Tc=101°C	5.0	A
		50Hz sine wave, R-load Without heatsink Ta=25°C	3.1	
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125°C	80	A
Repetitive Peak Surge Reverse Power	PRSM	Pulse width 10 μs, Tj=25°C	330	W

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

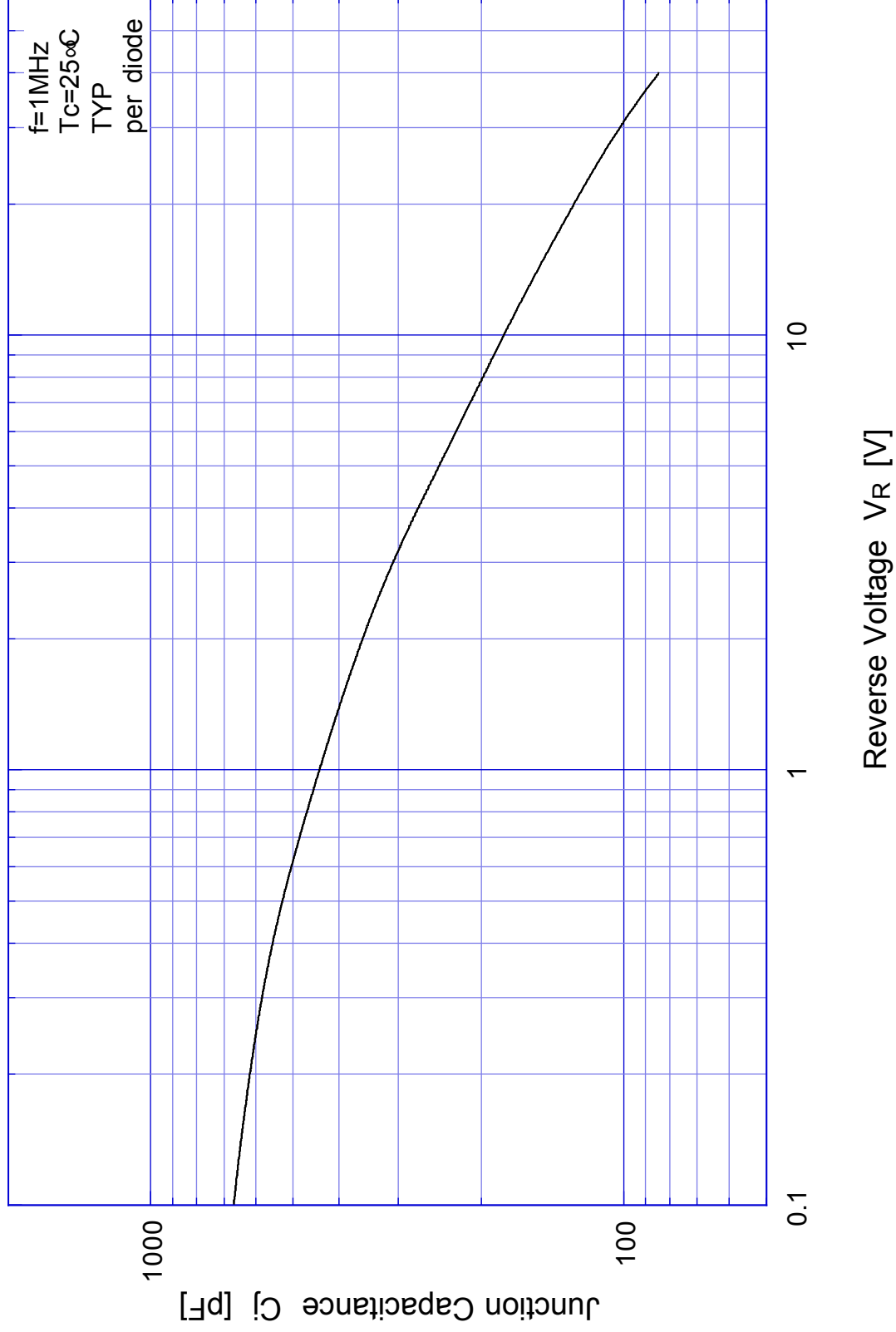
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=5A, Pulse measurement	Max.0.55	V
Reverse Current	IR	VR=VRM, Pulse measurement	Max.3.5	mA
Junction Capacitance	Cj	f=1MHz, VR=10V	Typ.180	pF
Thermal Resistance	θjc	junction to case	Max.12	°C/W
	θja	junction to ambient	Max.55	

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Forward Voltage

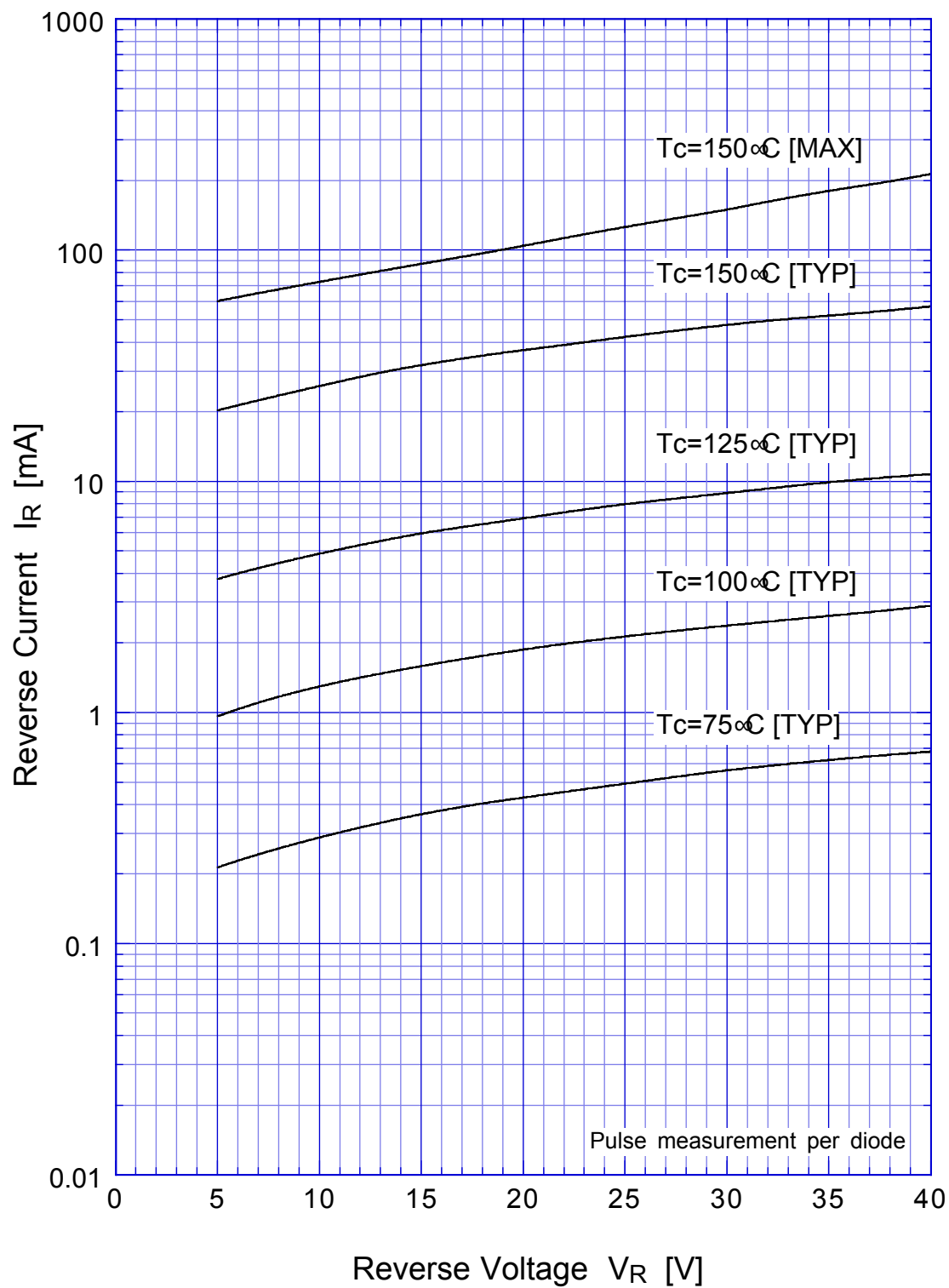


DE5S4M Junction Capacitance



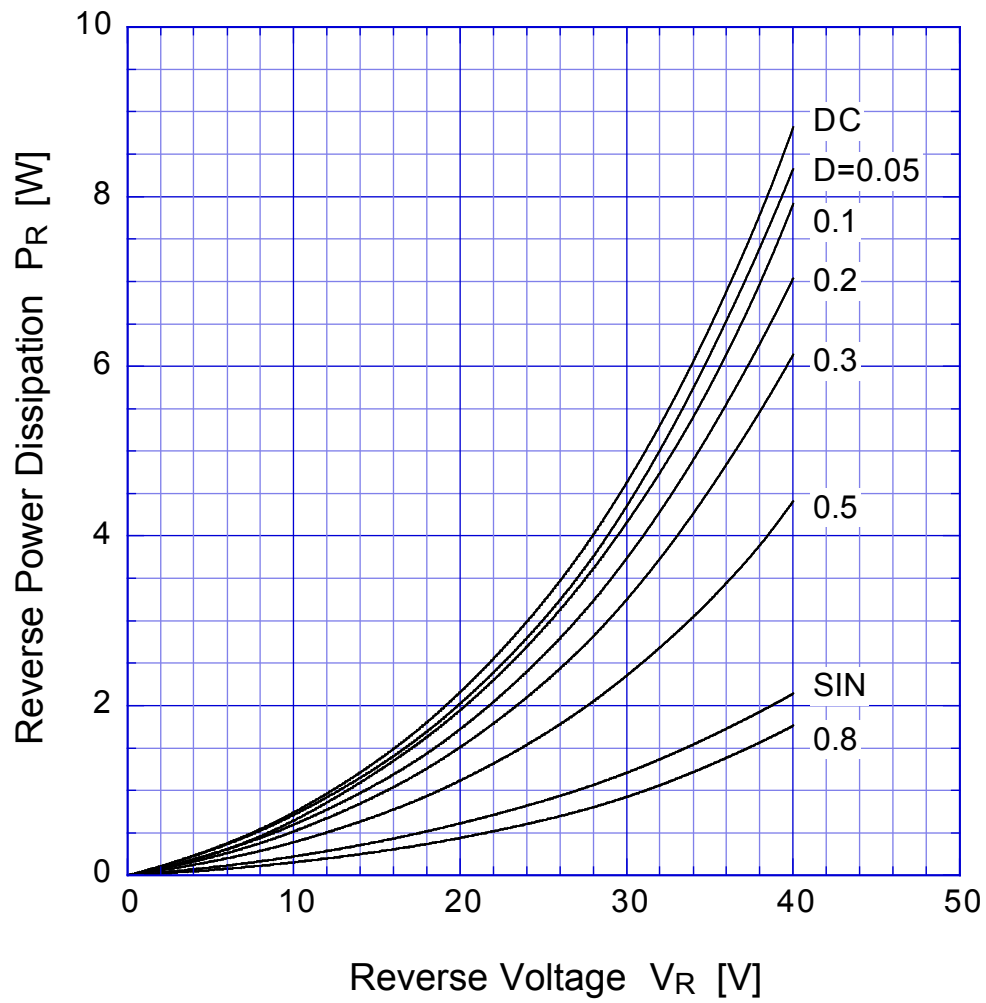
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Reverse Current

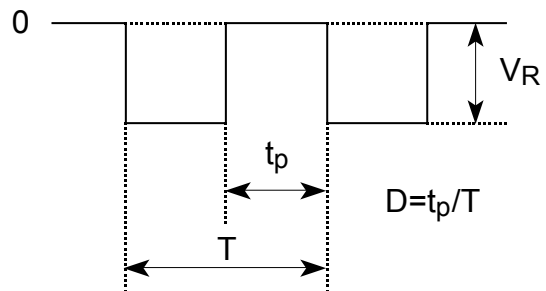


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Reverse Power Dissipation

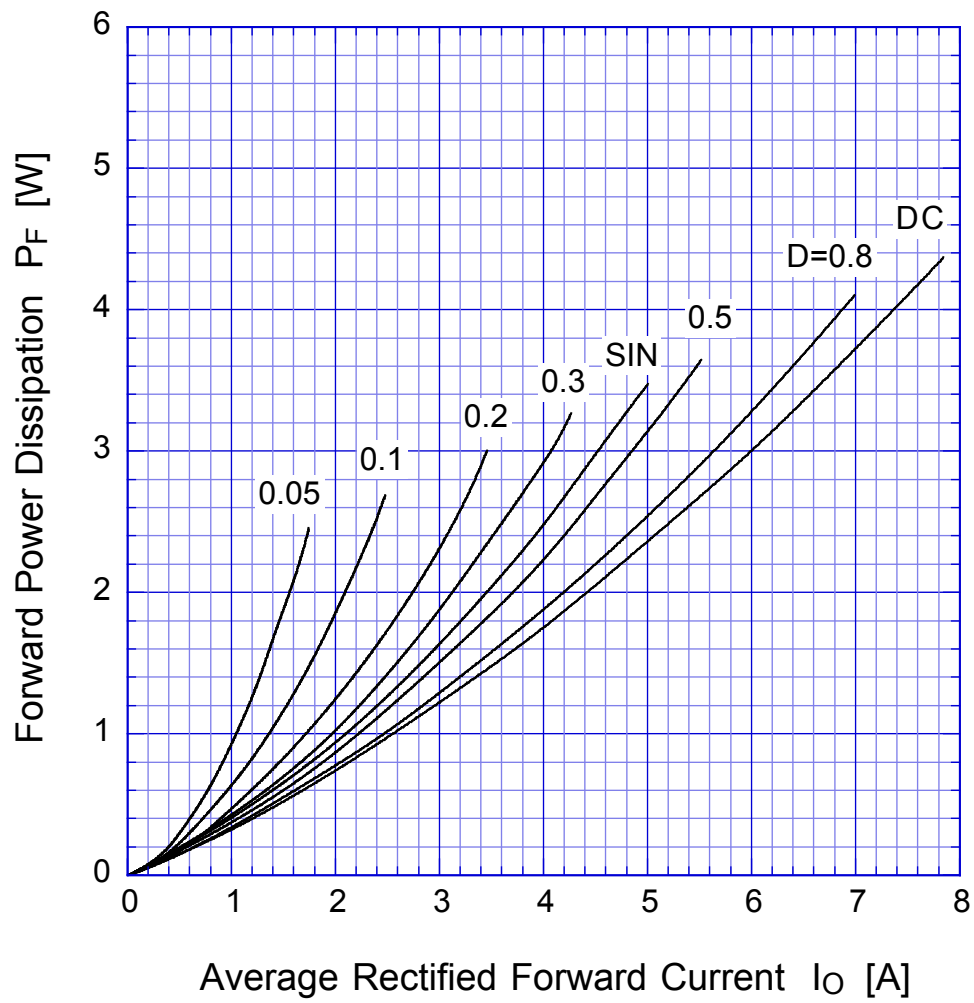


$T_j = 150^\circ\text{C}$

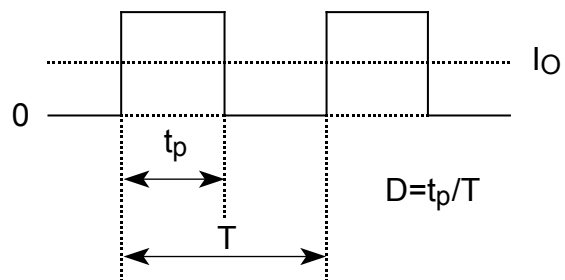


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Forward Power Dissipation

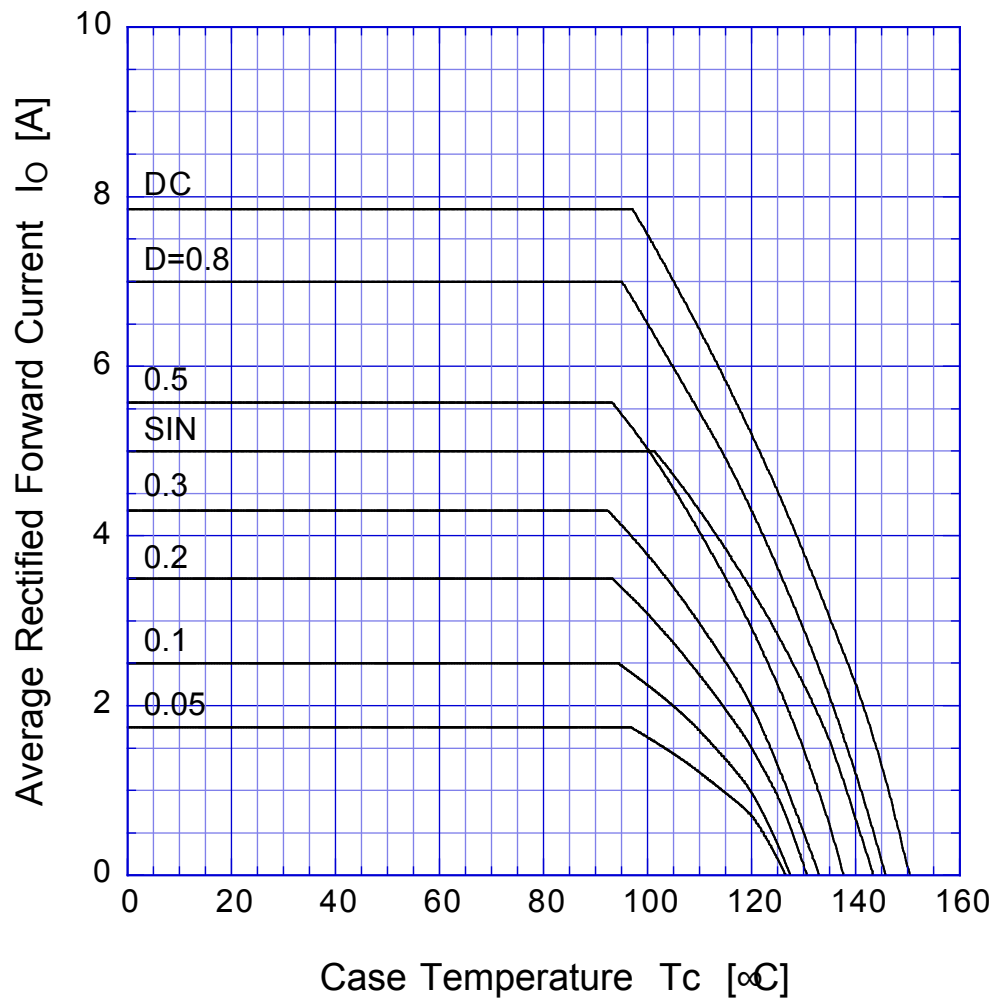


$T_j = 150^\circ\text{C}$

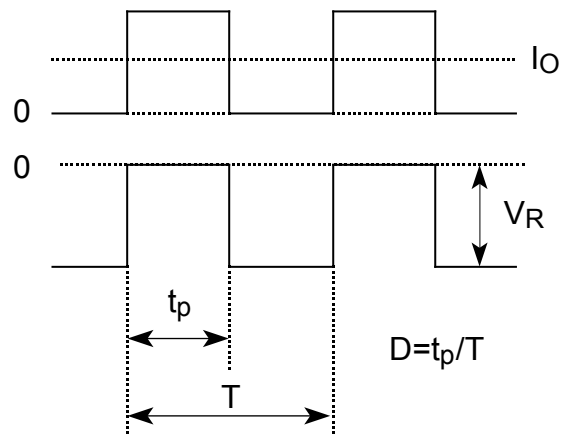


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Derating Curve

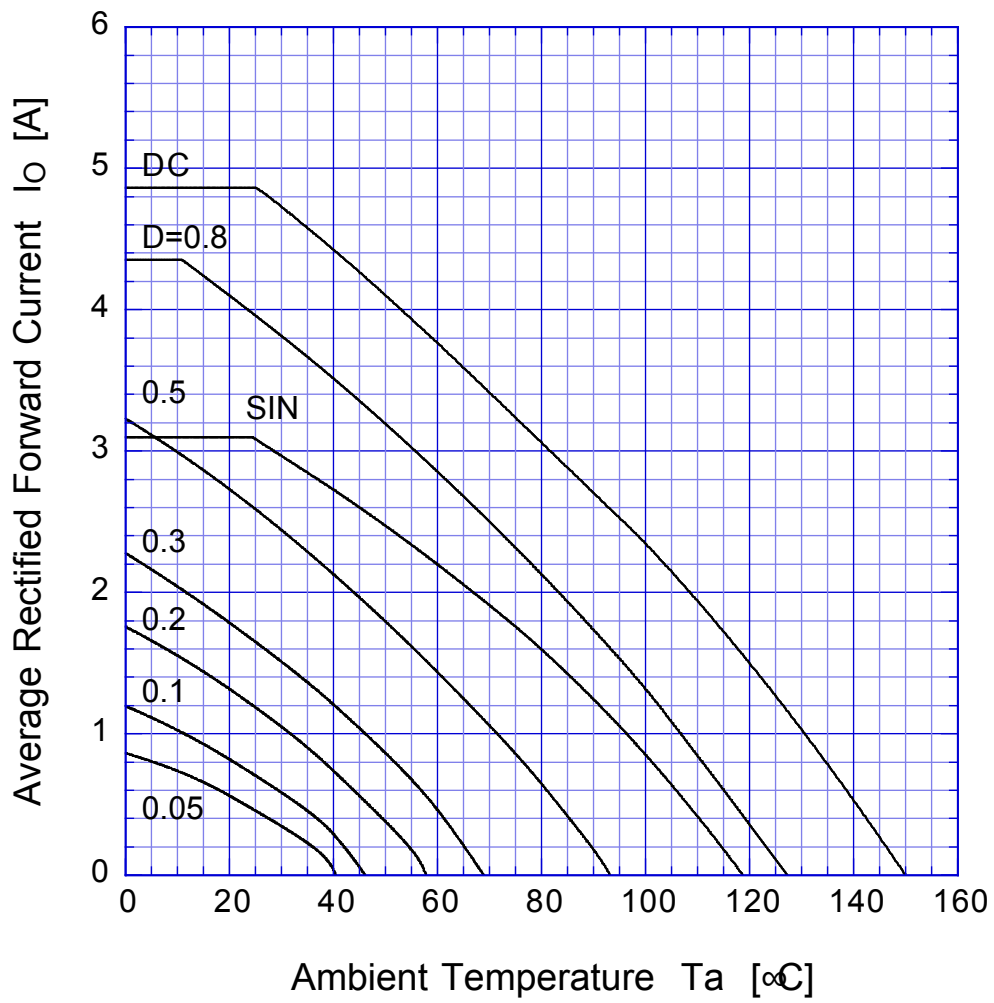


$V_R = 20V$

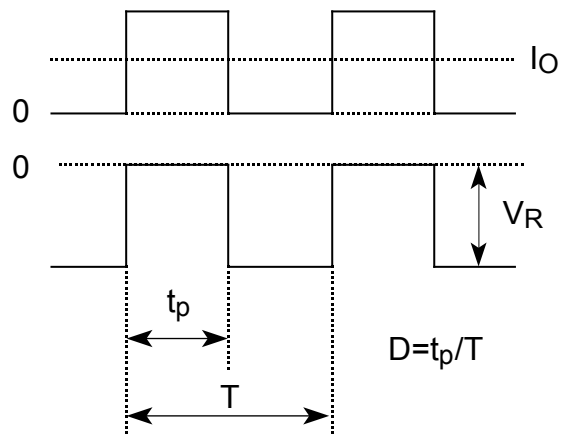


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Derating Curve

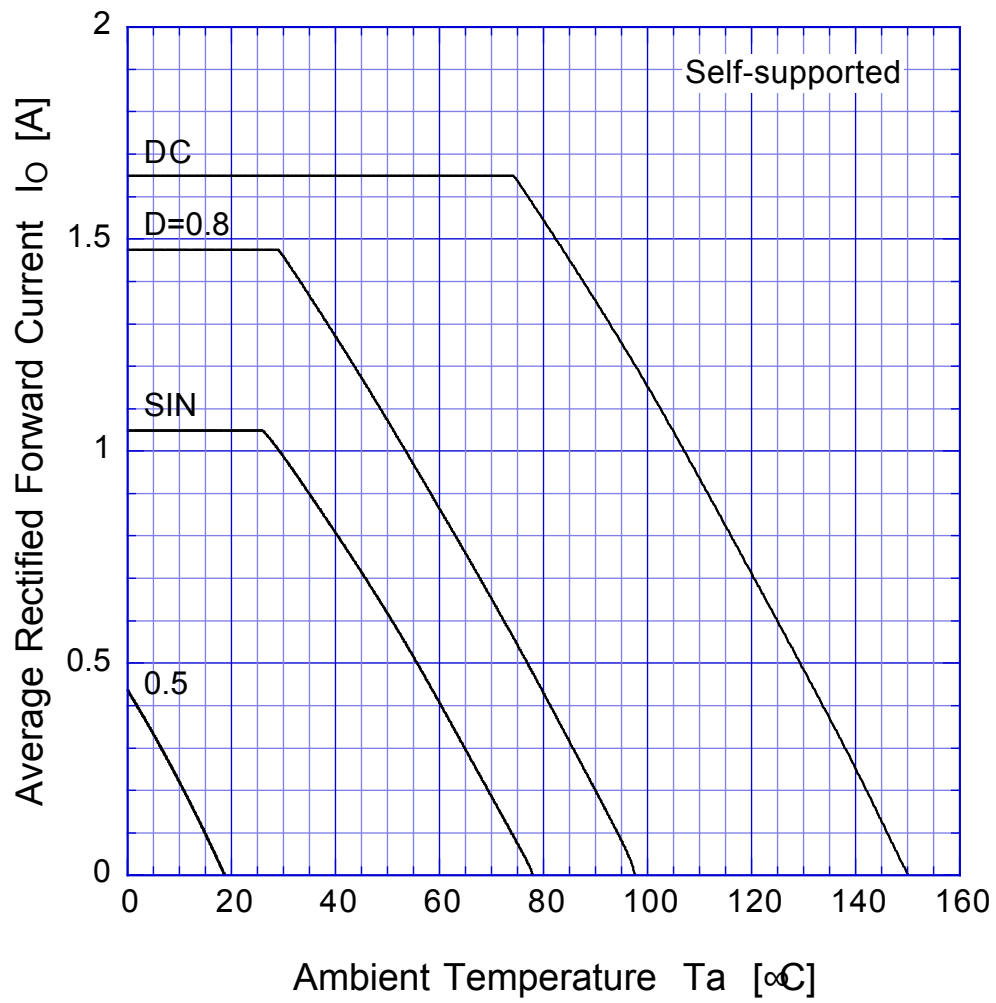


$V_R = 20V$

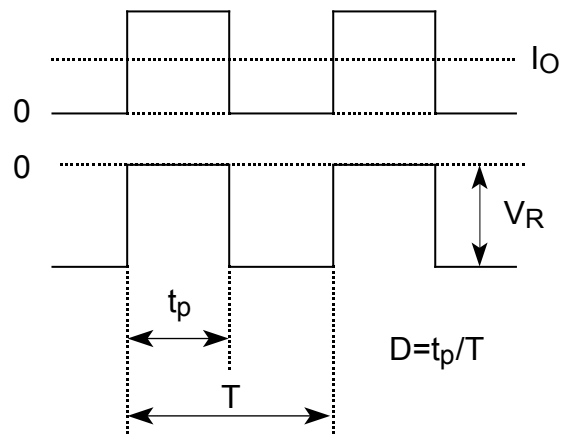


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Derating Curve

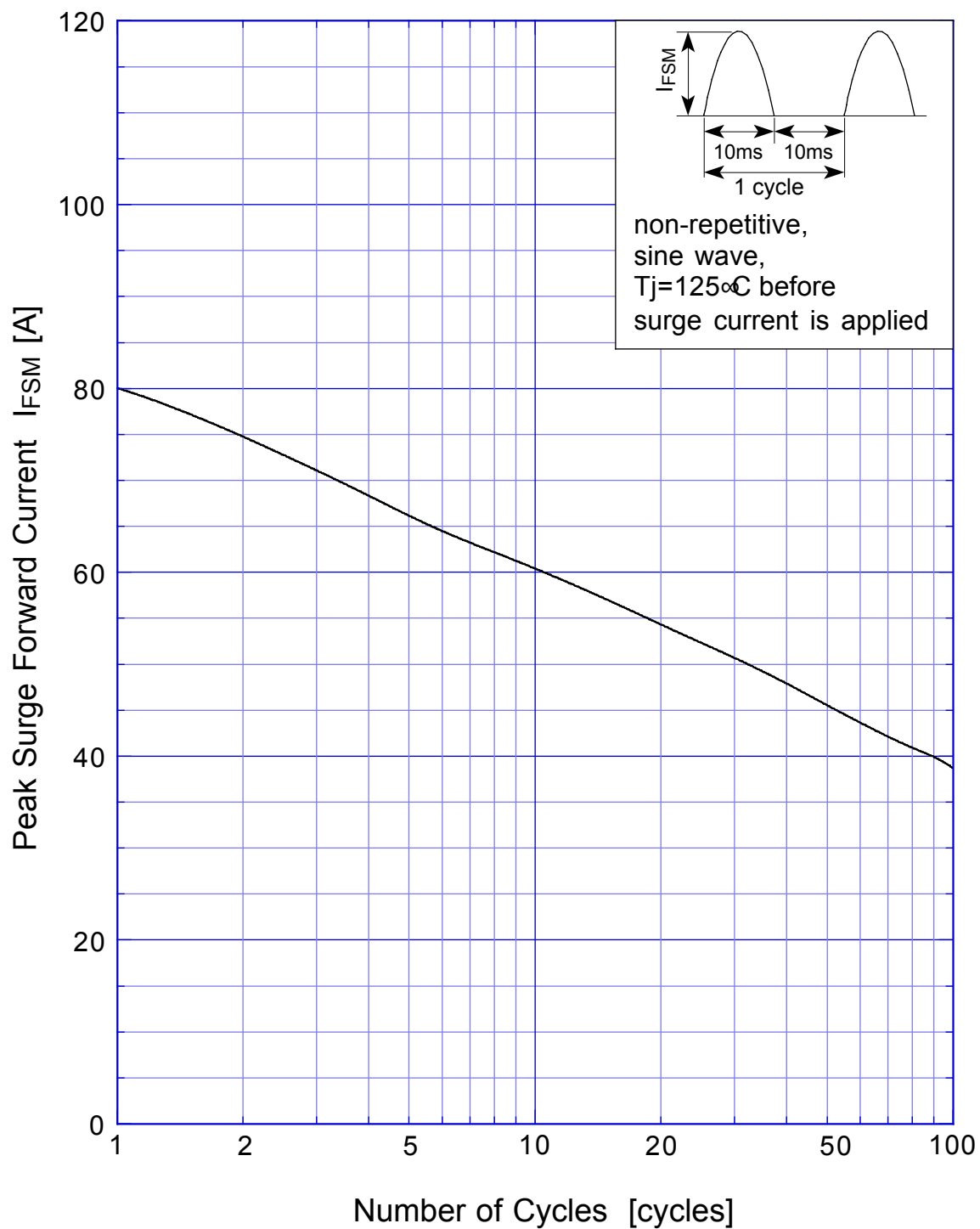


$V_R = 20V$



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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

