

S15SC4M

40V 15A

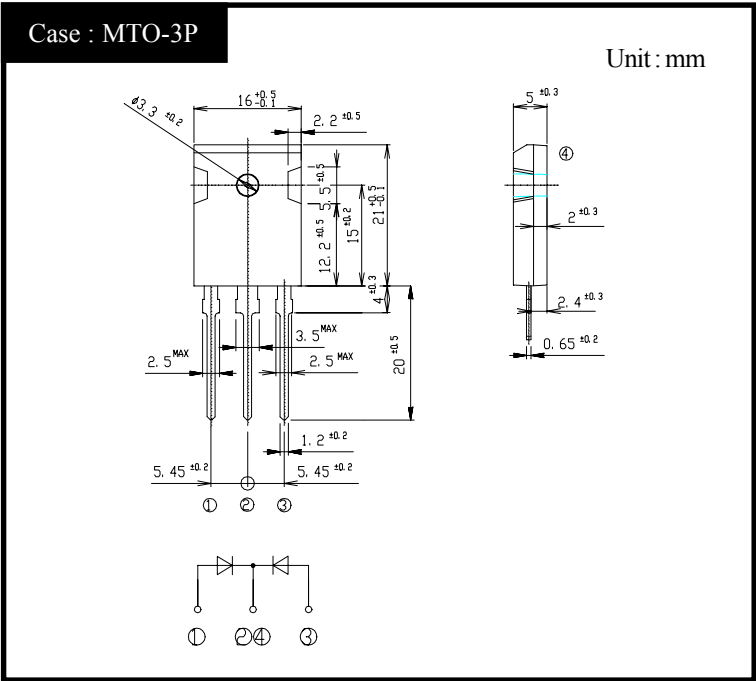
FEATURES

- Tj150℃
- PRRSM avalanche guaranteed
- Small θ_{jc}
- High current capacity

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

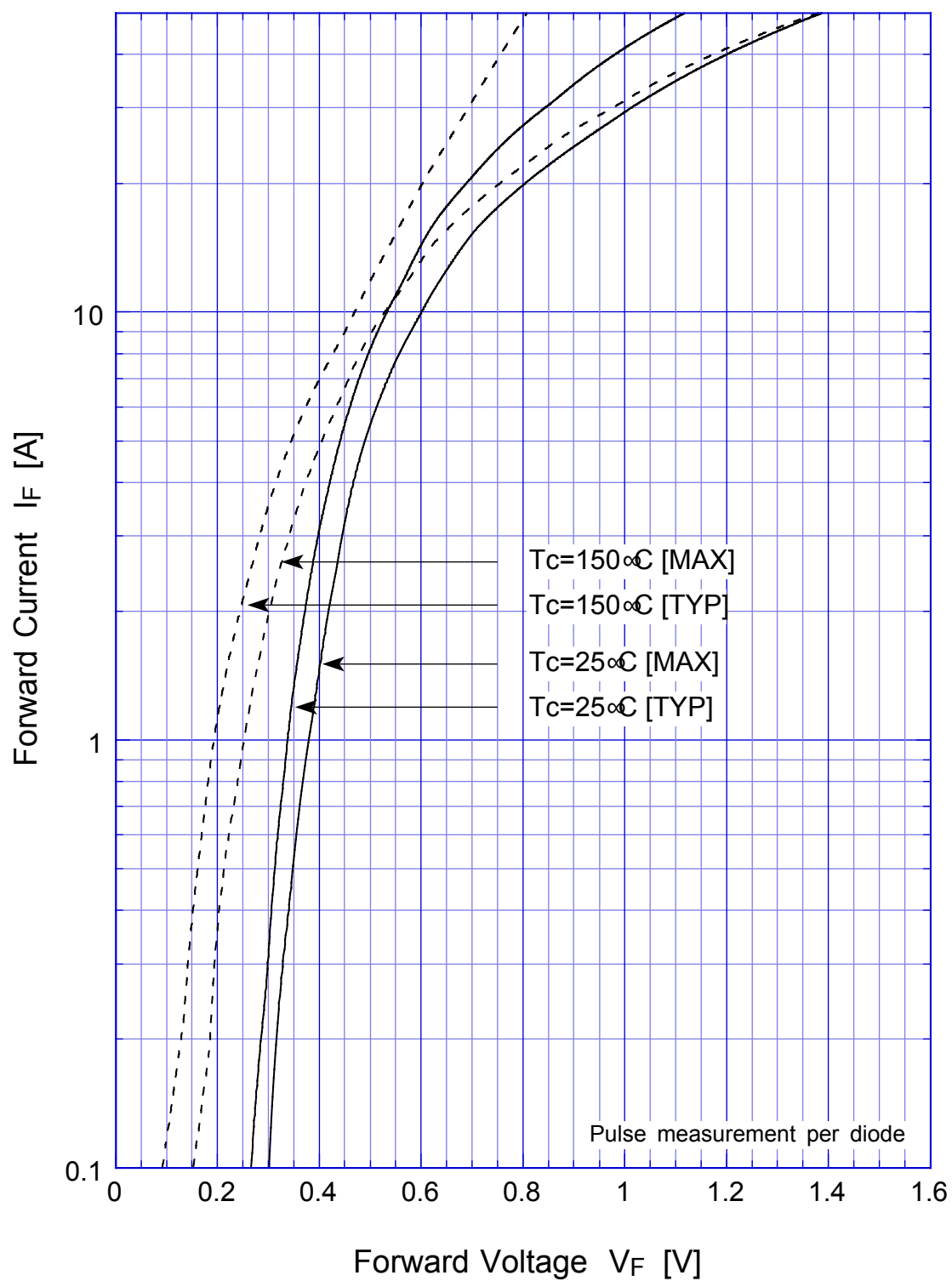
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40~150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	IO	50Hz sine wave, R-load, Rating for each diode Io/2, Tc=135℃	15	A
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Rating of per diode, Tj=125℃	170	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10 μ s, Rating of per diode, Tj=25℃	330	W
Mounting Torque	TOR	(Recommended torque:0.5N·m)	0.8	N·m

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

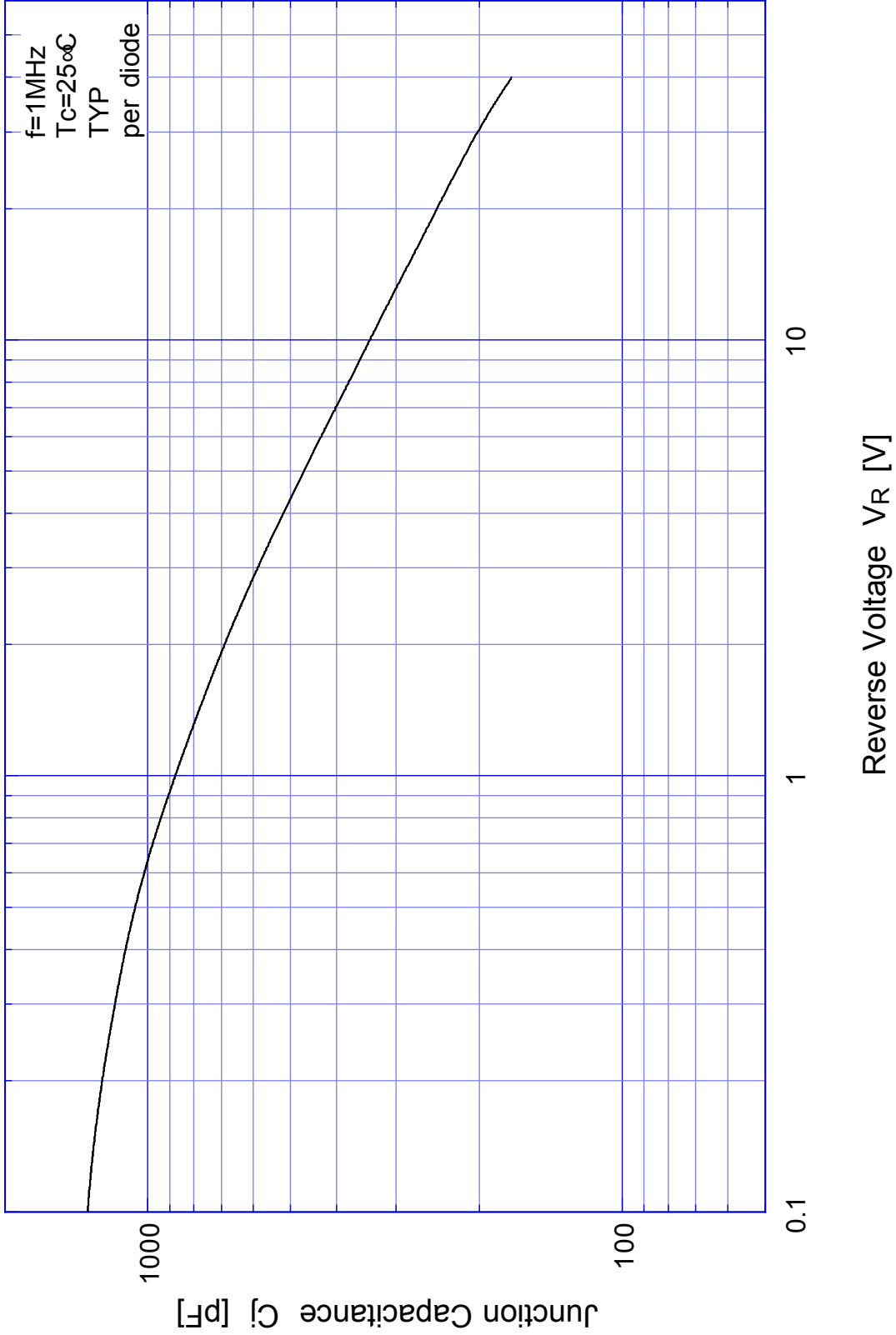
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=7.5A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	IR	VR=VRM, Pulse measurement, Rating of per diode	Max.5	mA
Junction Capacitance	Cj	f=1MHz, VR=10V Rating of per diode	Typ.340	pF
Thermal Resistance	θ_{jc}	junction to case	Max.1.2	℃/W

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Forward Voltage

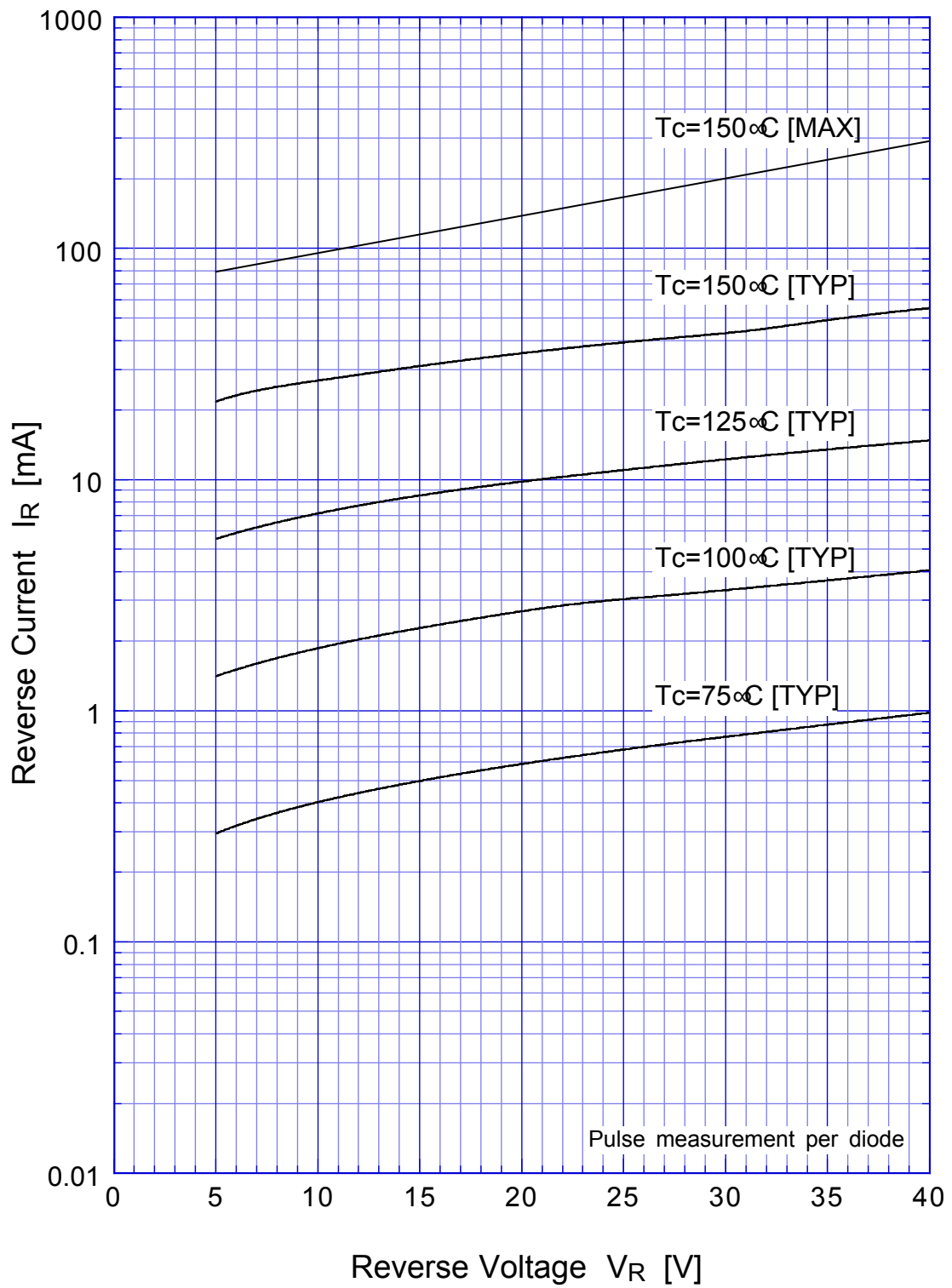


S15SC4M Junction Capacitance

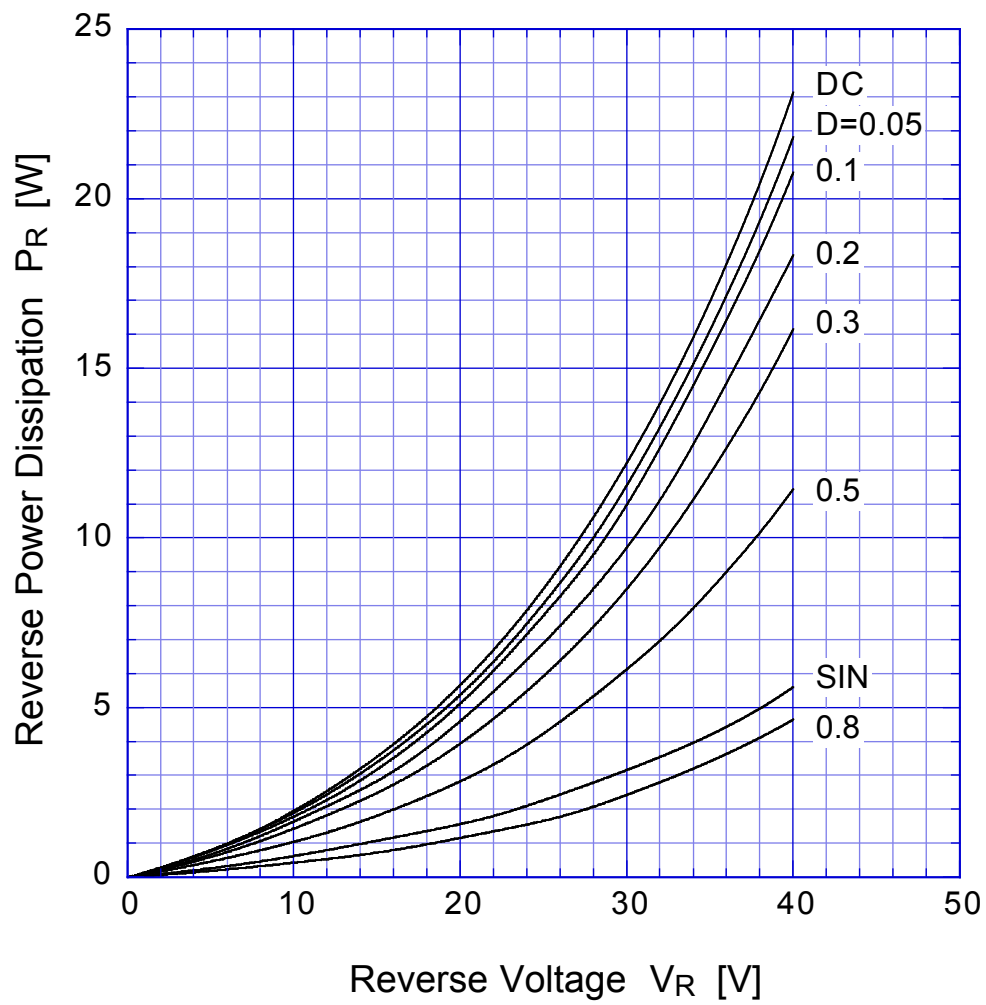


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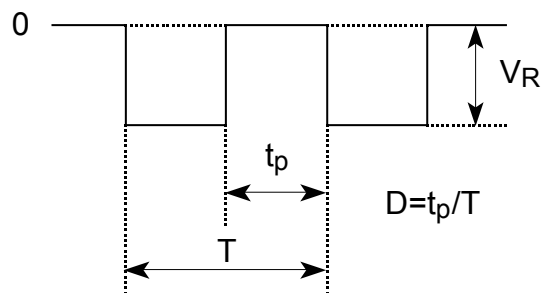
Reverse Current



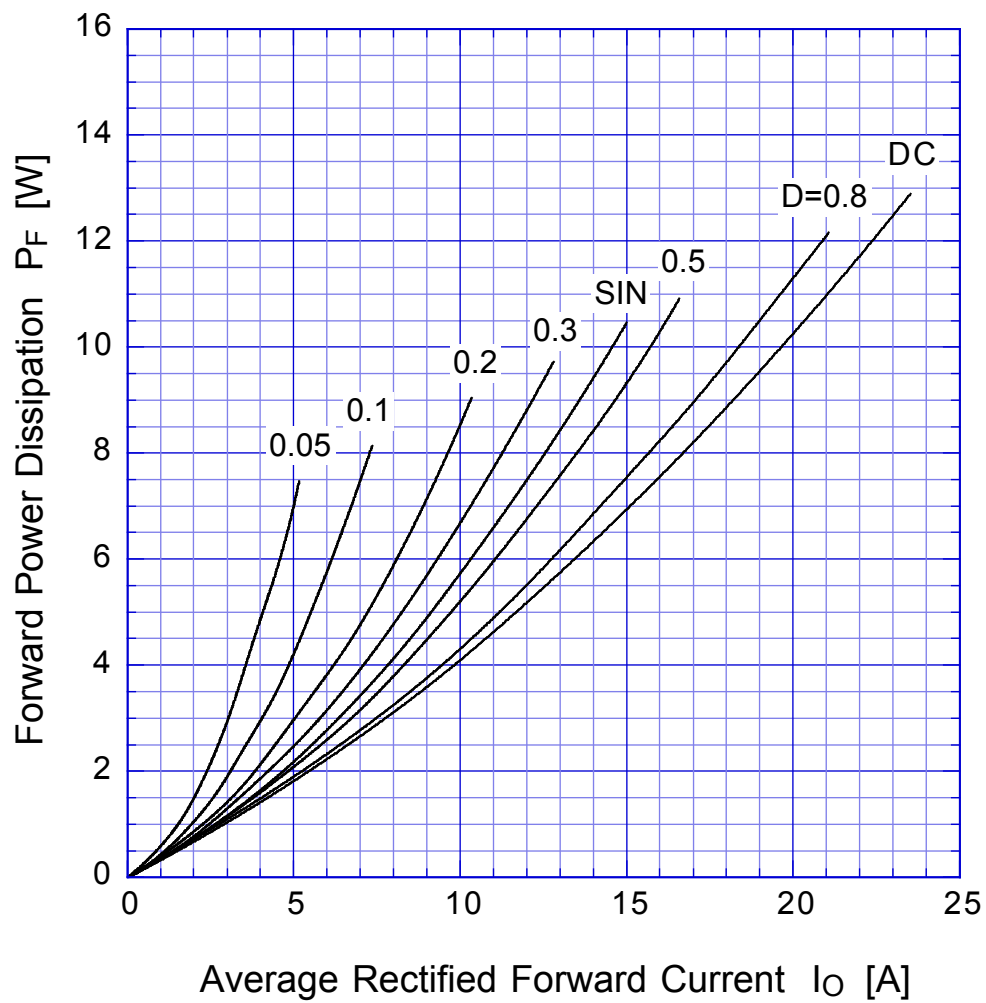
S15SC4M Reverse Power Dissipation



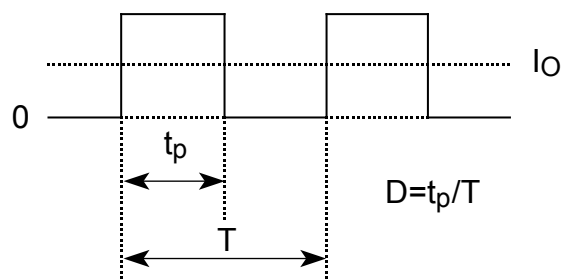
$T_j = 150^\circ\text{C}$



S15SC4M Forward Power Dissipation

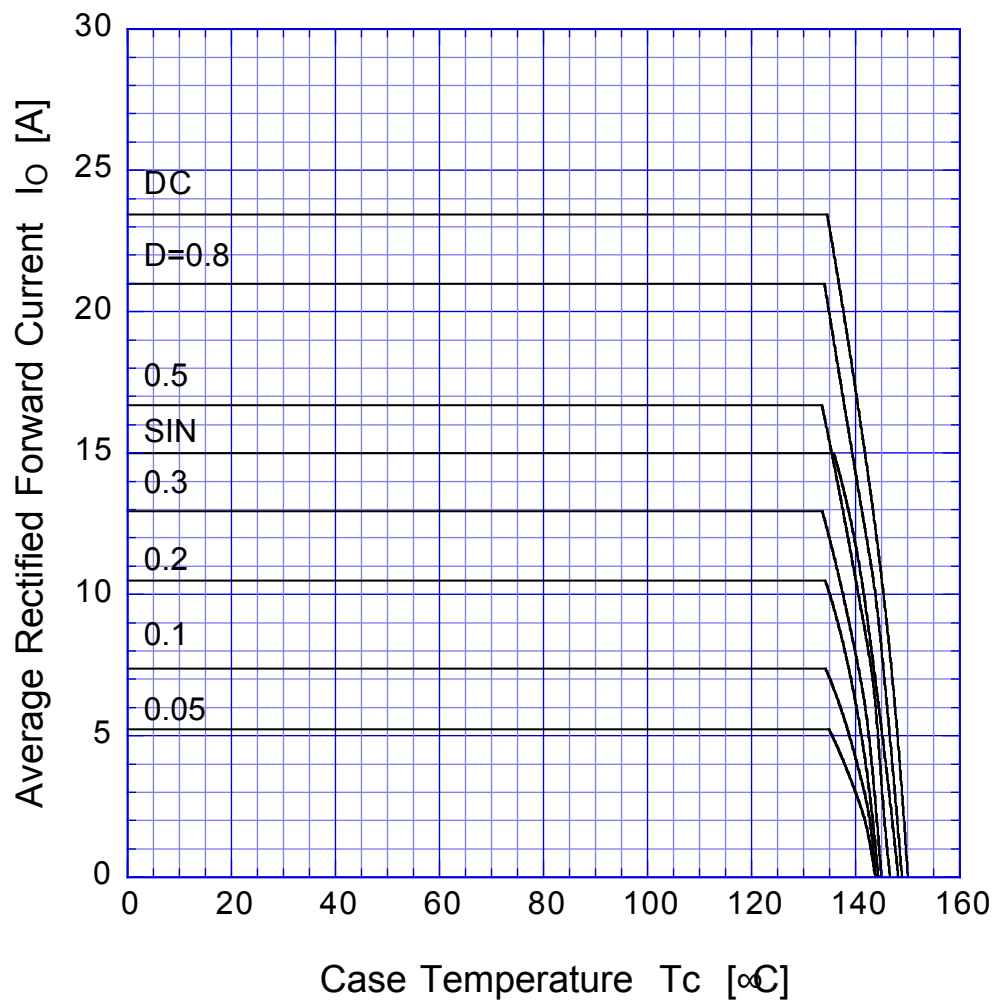


$T_j = 150^\circ\text{C}$

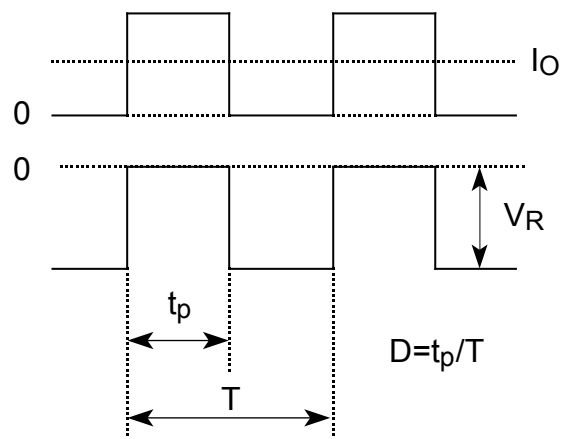


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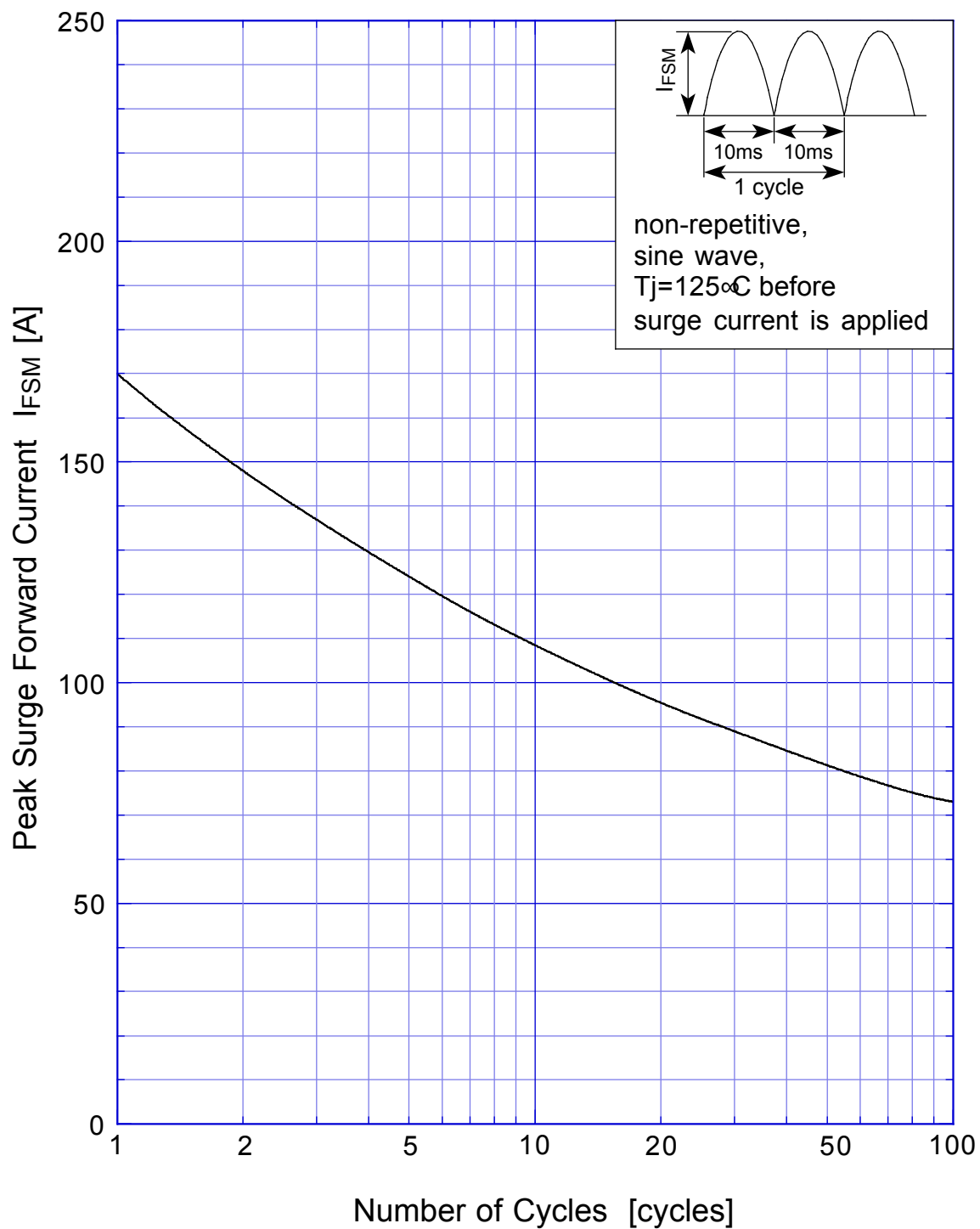
Derating Curve



$V_R = 20V$



S15SC4M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

