

DE5SC6M

60V 5A

FEATURES

- SMT
- Tj150
- P_{RRSM} avalanche guaranteed
- High current capacity with Small Package

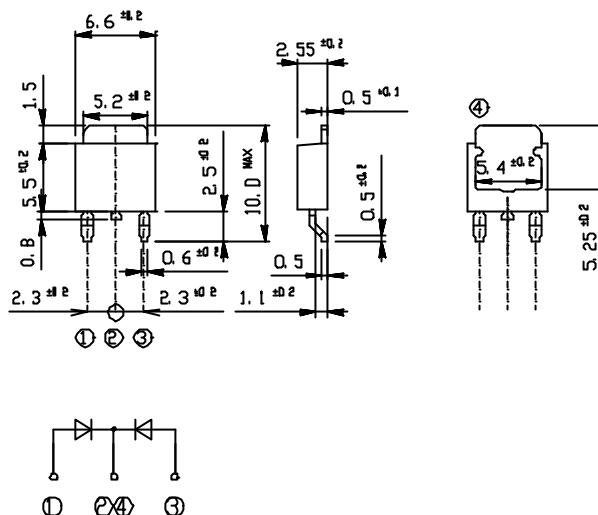
APPLICATION

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

OUTLINE DIMENSIONS

Case : E-pack

Unit : mm



RATINGS

- Absolute Maximum Ratings (If not specified Tc=25)

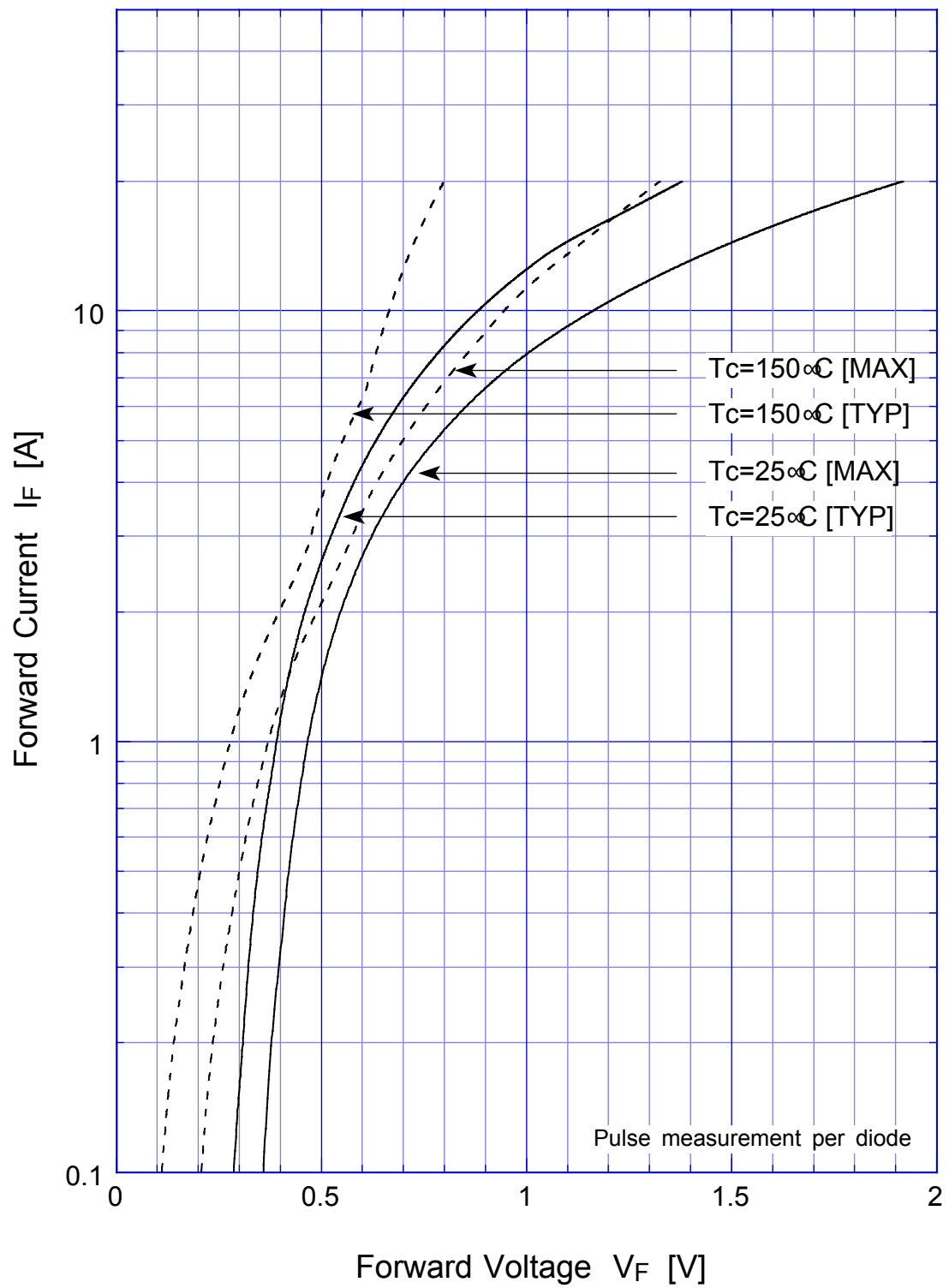
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40 ~ 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	V _{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V _{RSSM}	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I _O	50Hz sine wave, R-load, Rating for each diode I _O /2, Ta=42 °C, On alumina substrate	2.5	A
		50Hz sine wave, R-load, Rating for each diode I _O /2, Tc=92 °C	5	
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125 °C	80	A
Repetitive Peak Surge Reverse Power	P _{RSSM}	Pulse width 10 μs, Rating of per diode, Tj=25 °C	330	W

- Electrical Characteristics (If not specified Tc=25)

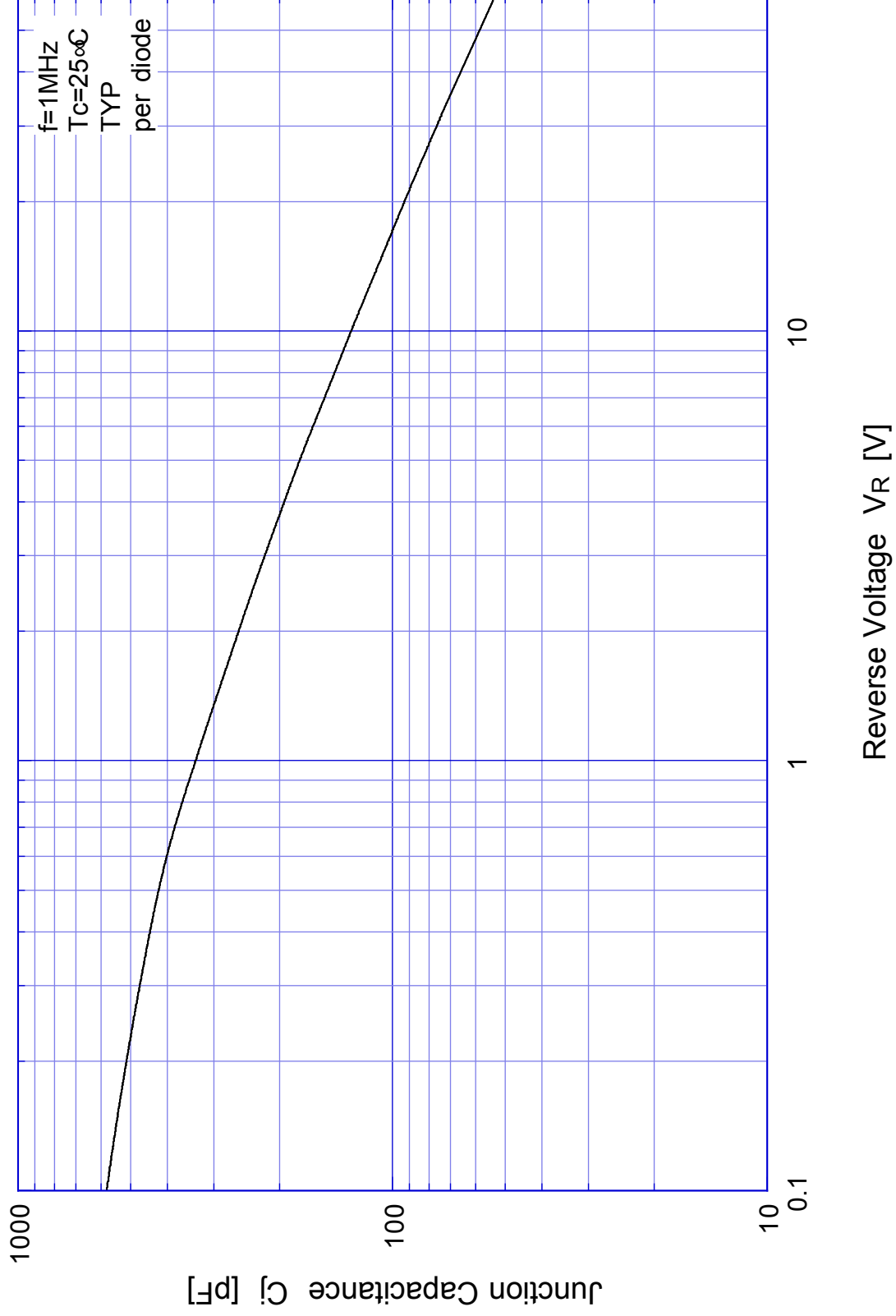
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=2.5A$, Pulse measurement, Rating of per diode	Max.0.58	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.2.5	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$, Rating of per diode	Typ.130	pF
Thermal Resistance	θ_{jc}	junction to case	Max.12	/W
	θ_{ja}	junction to ambient	Max.55	

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Forward Voltage

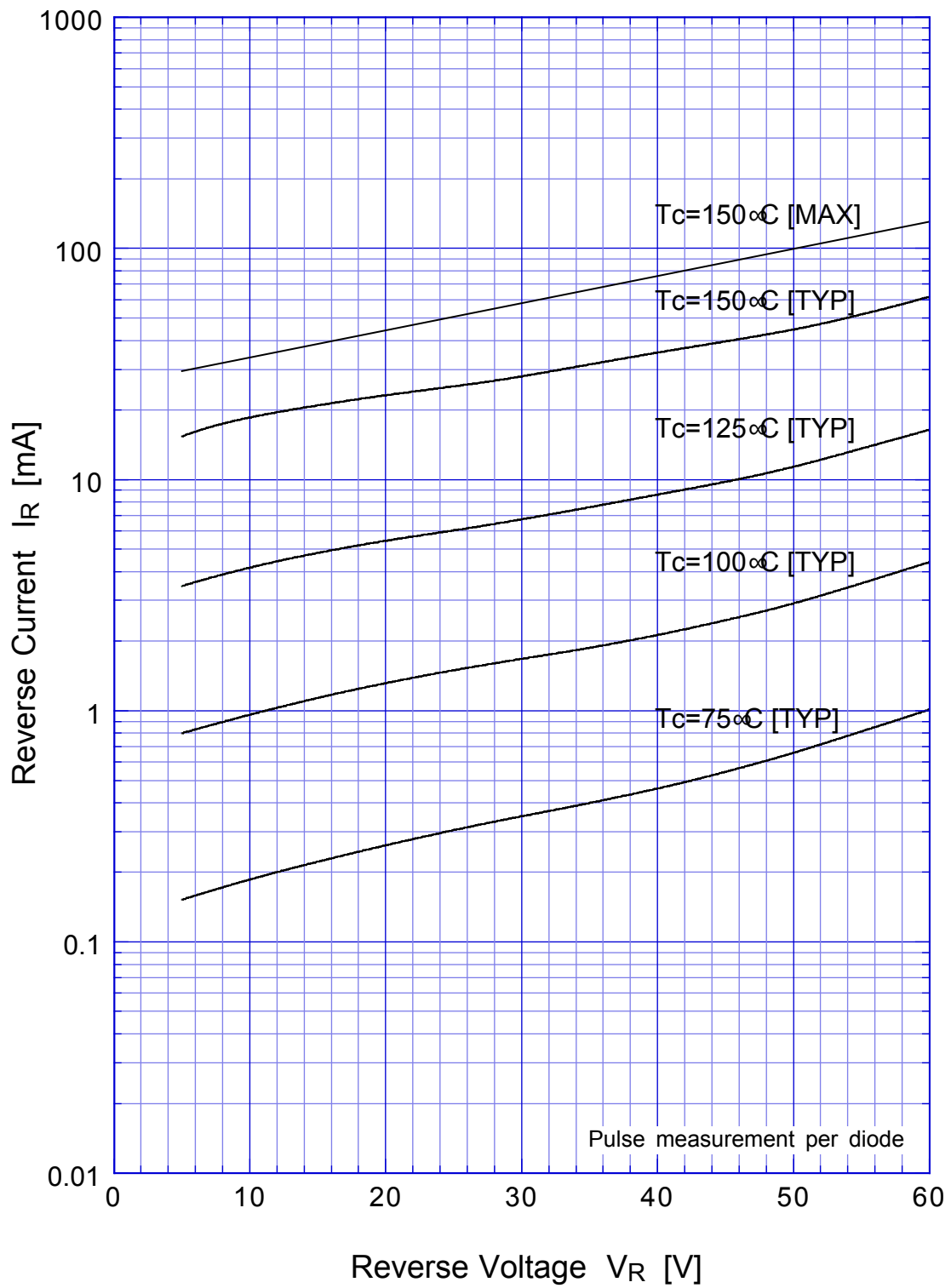


DE5SC6M Junction Capacitance

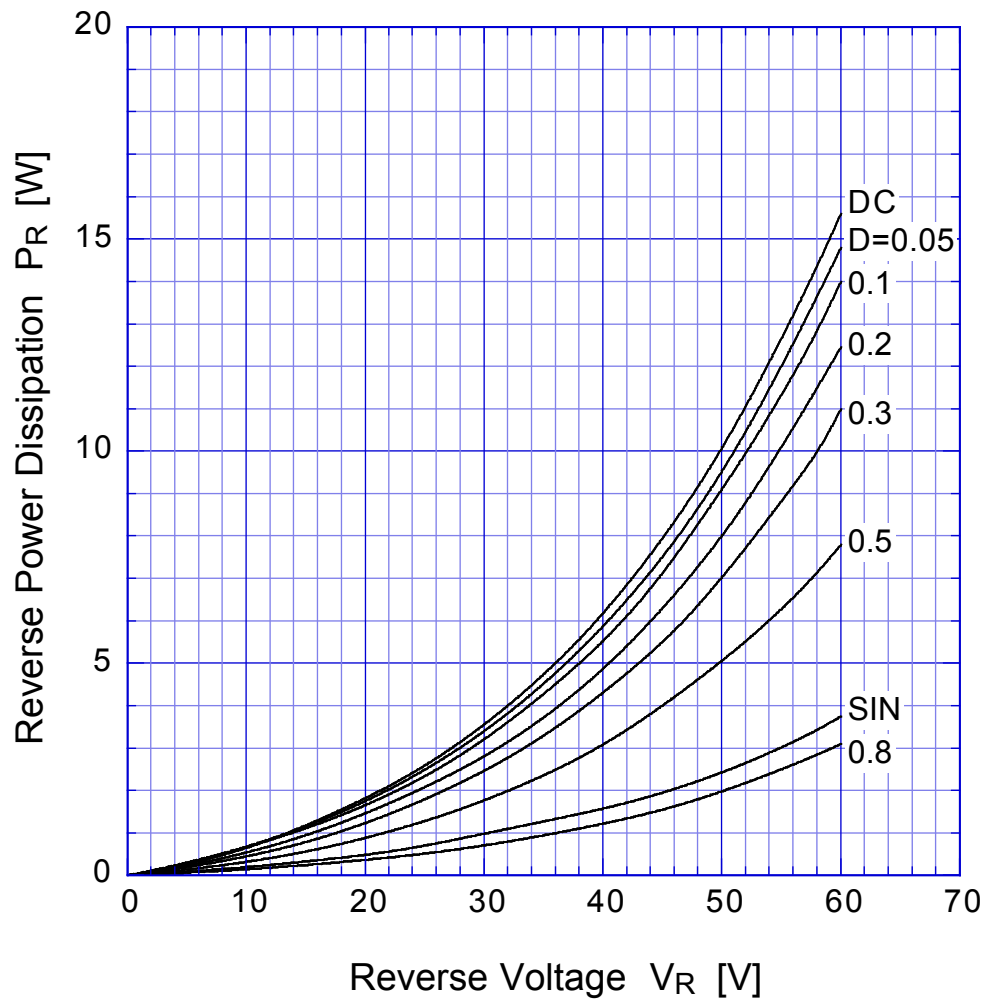


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Reverse Current



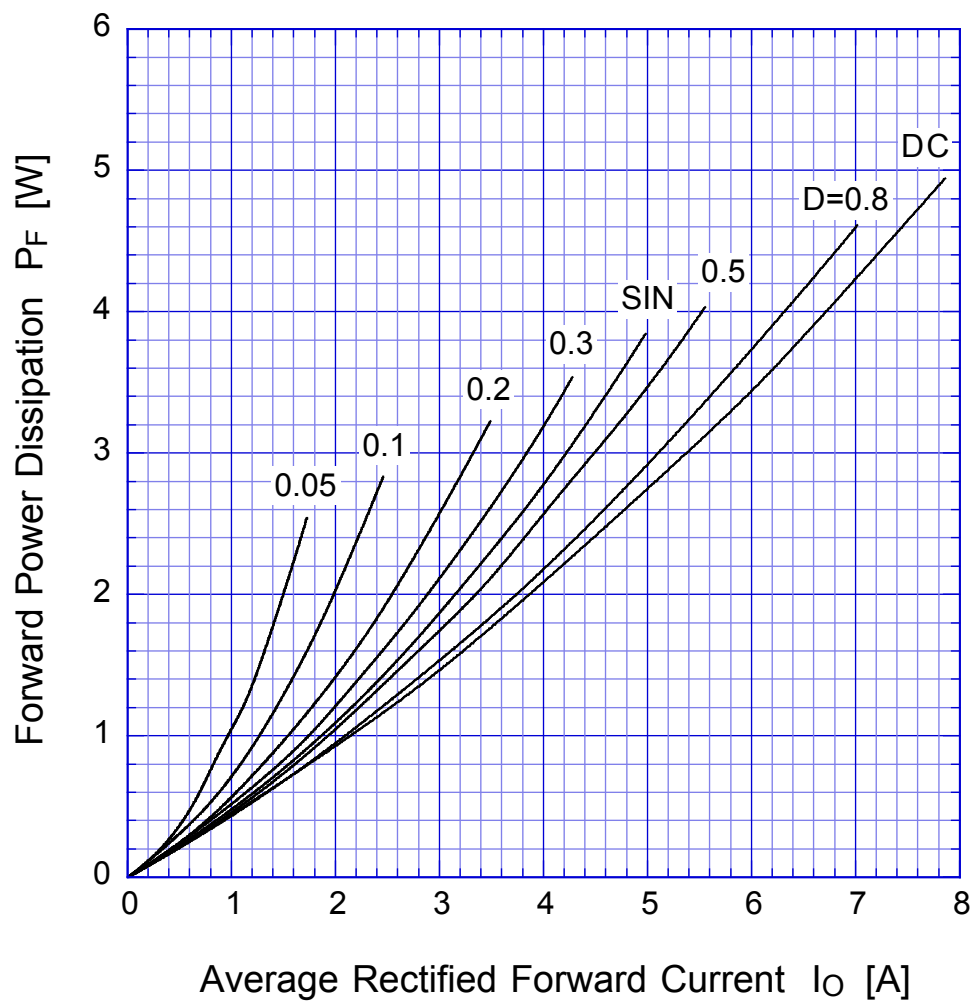
DE5SC6M Reverse Power Dissipation



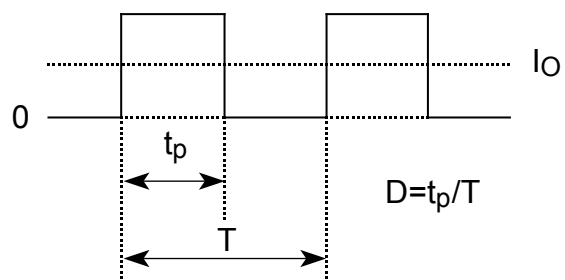
$T_j = 150^\circ\text{C}$



DE5SC6M Forward Power Dissipation

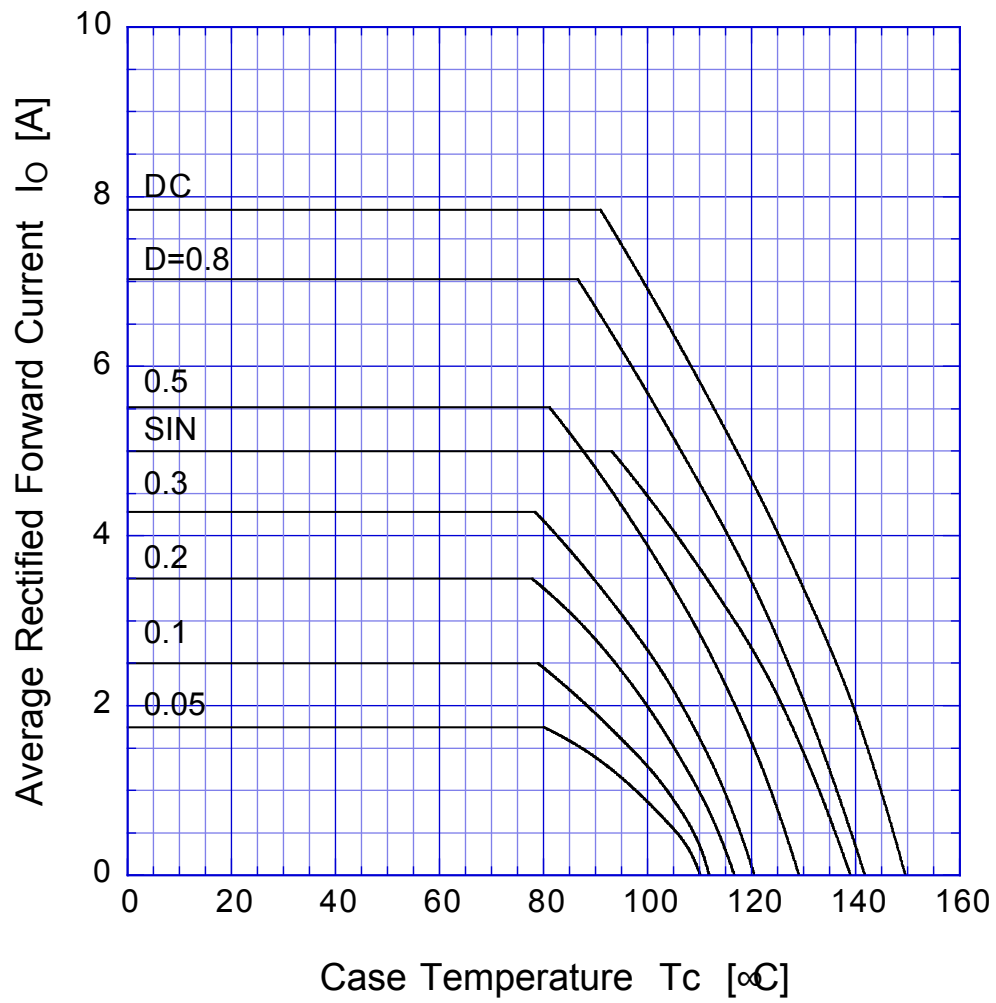


$T_J = 150^\circ\text{C}$

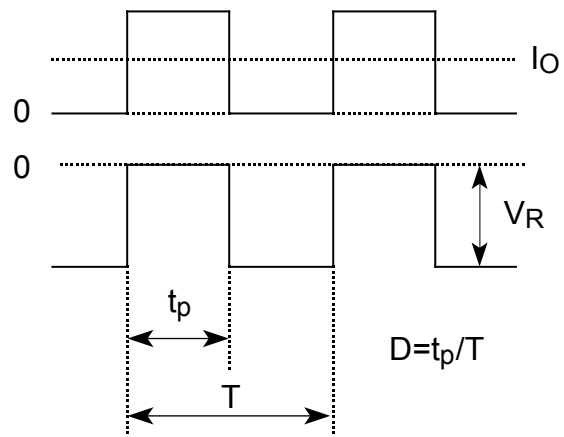


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Derating Curve

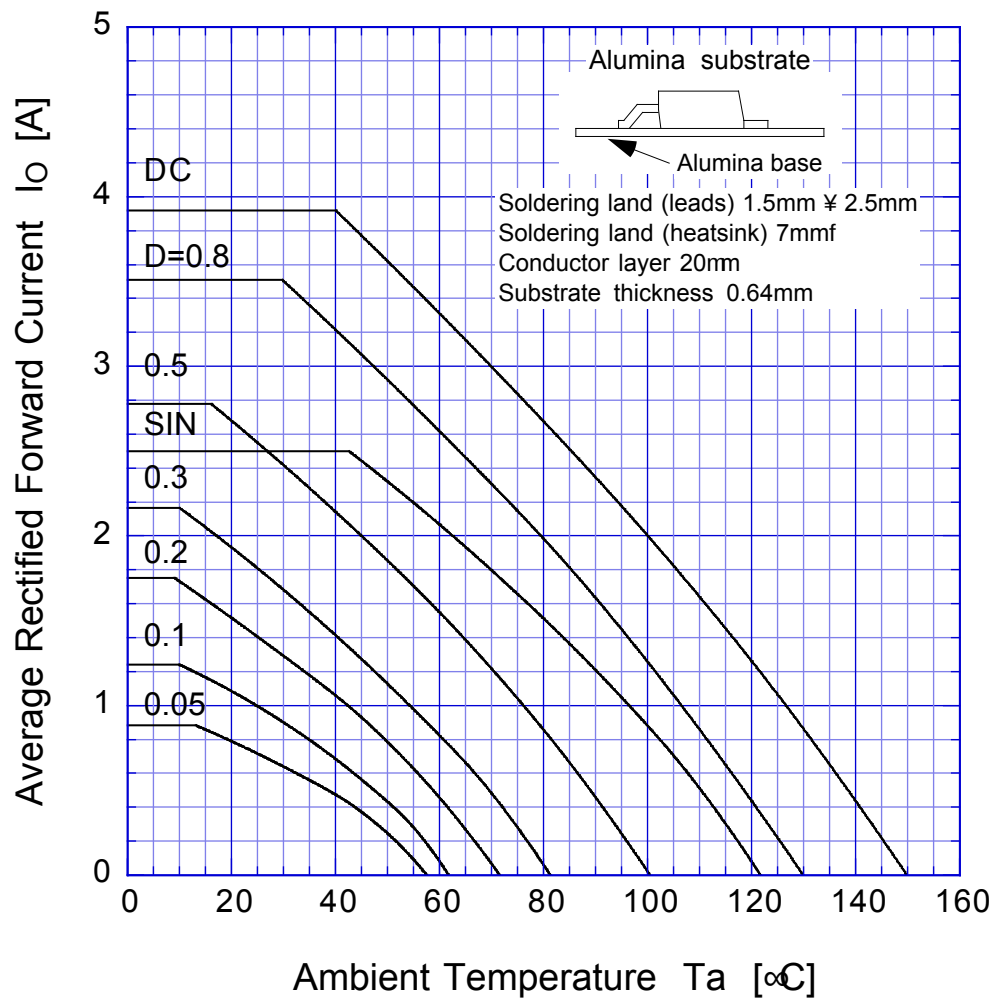


$V_R = 30V$

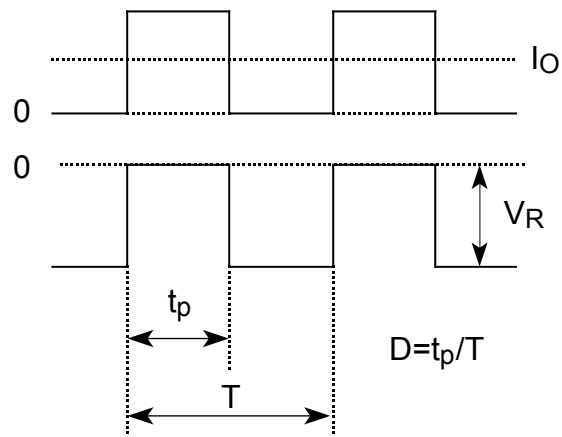


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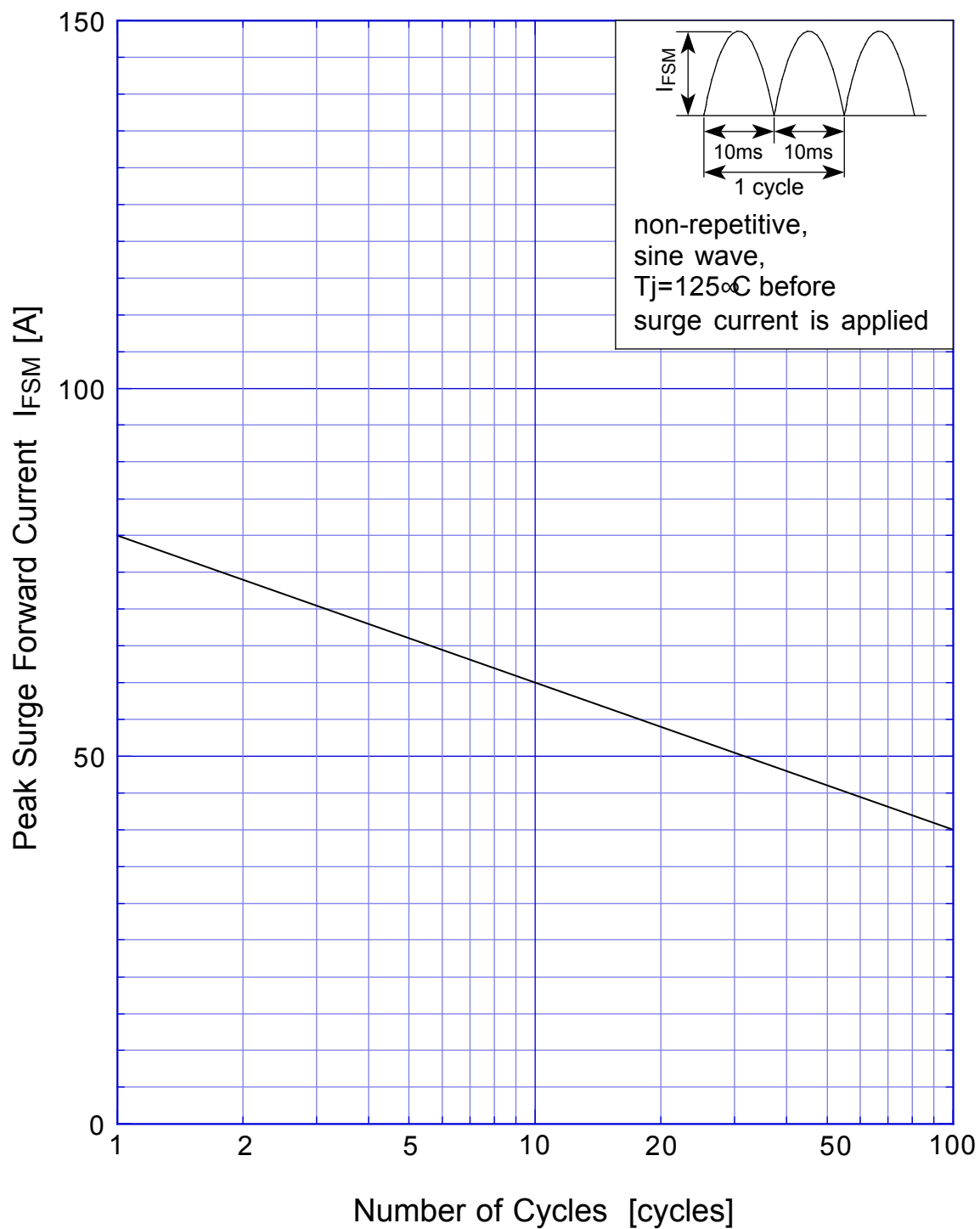
Derating Curve



$V_R = 20V$



DE5SC6M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

