

DE5SC3ML

30V 5A

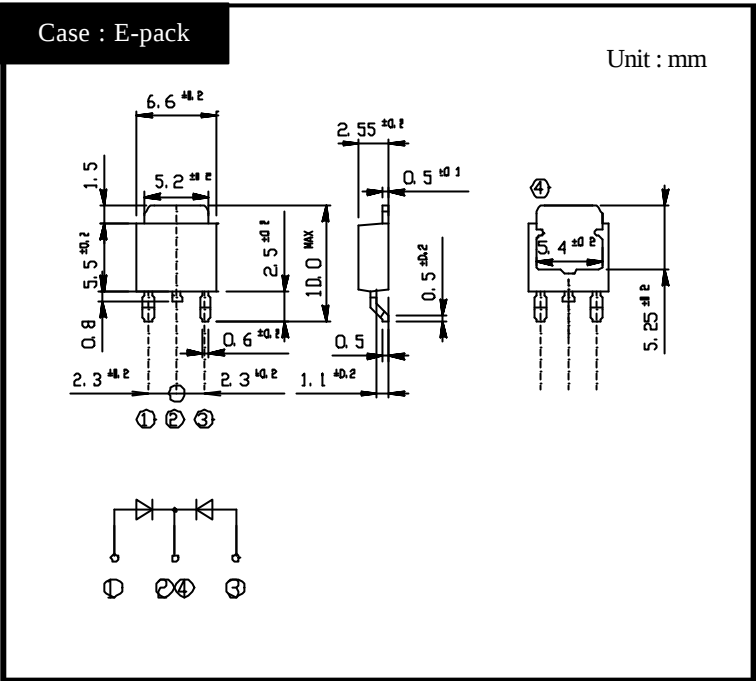
FEATURES

- SMT
- Tj150
- Low VF=0.45V
- PRRSM avalanche guaranteed
- High current capacity with Small Package

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

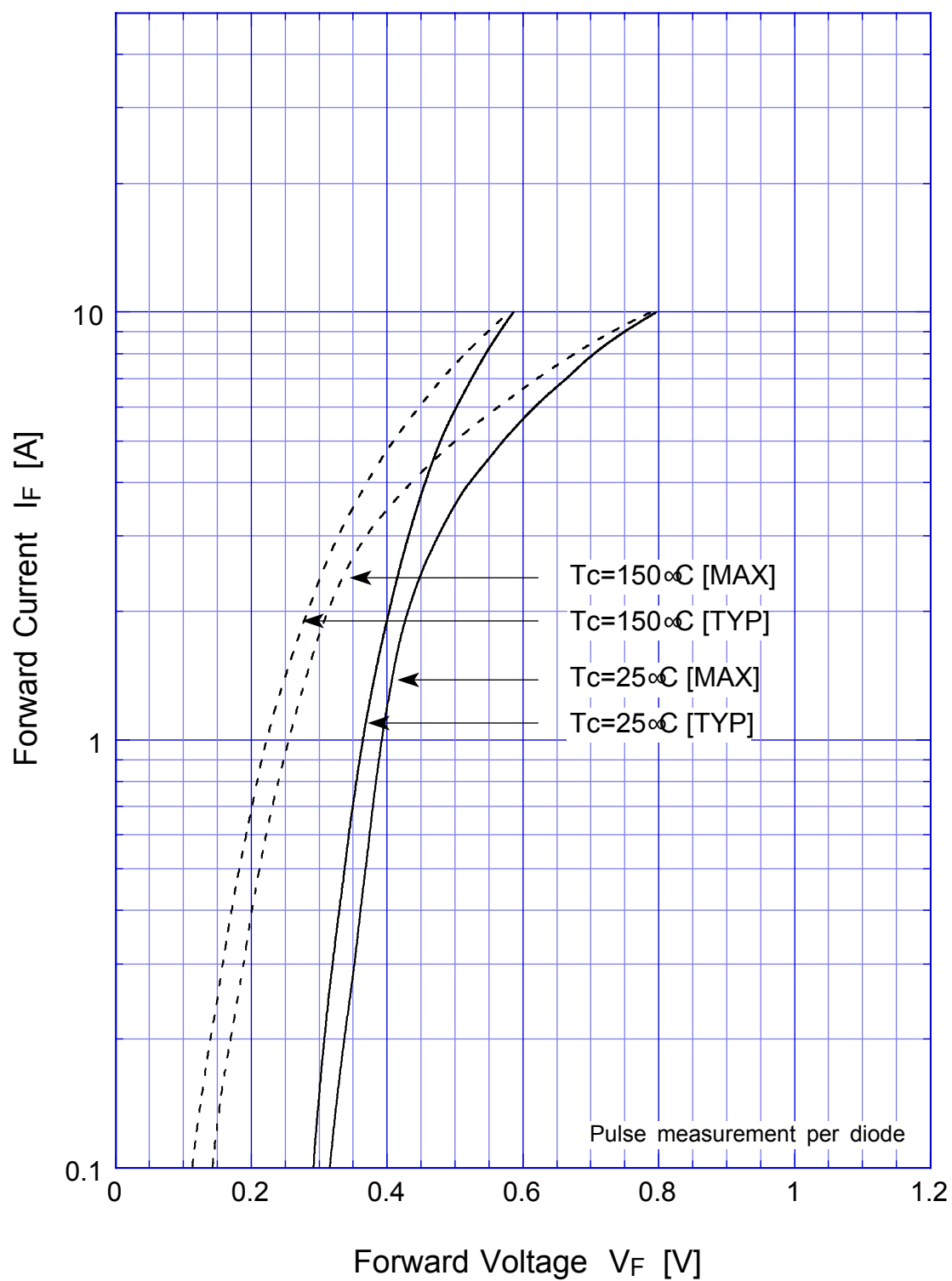
- Absolute Maximum Ratings (If not specified Tc=25)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 ~ 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	V _{RM}		30	V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	I _o	50Hz sine wave, R-load, Rating for each diode I _o /2, Tc=110	5	A
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25	90	A
Repetitive Peak Surge Reverse Power	P _{RRSM}	Pulse width 10 μs, Rating of per diode, Tj=25	330	W

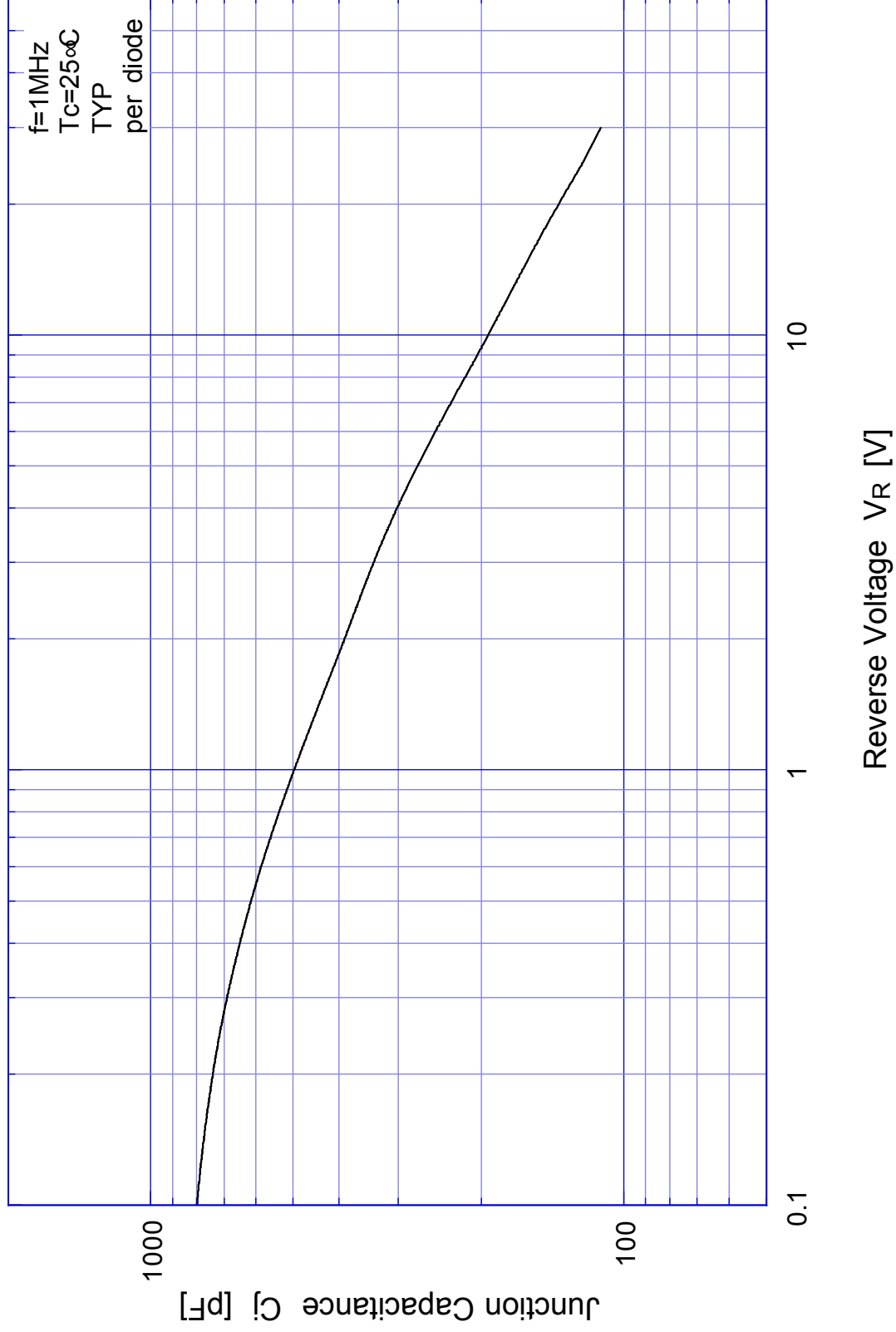
- Electrical Characteristics (If not specified Tc=25)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	IF=2.5A, Pulse measurement, Rating of per diode	Max.0.45	V
Reverse Current	I _R	VR=V _{RM} , Pulse measurement, Rating of per diode	Max.3.5	mA
Junction Capacitance	C _j	f=1MHz, VR=10V, Rating of per diode	Typ.190	pF
Thermal Resistance	θ _{jc}	junction to case	Max.12	/W

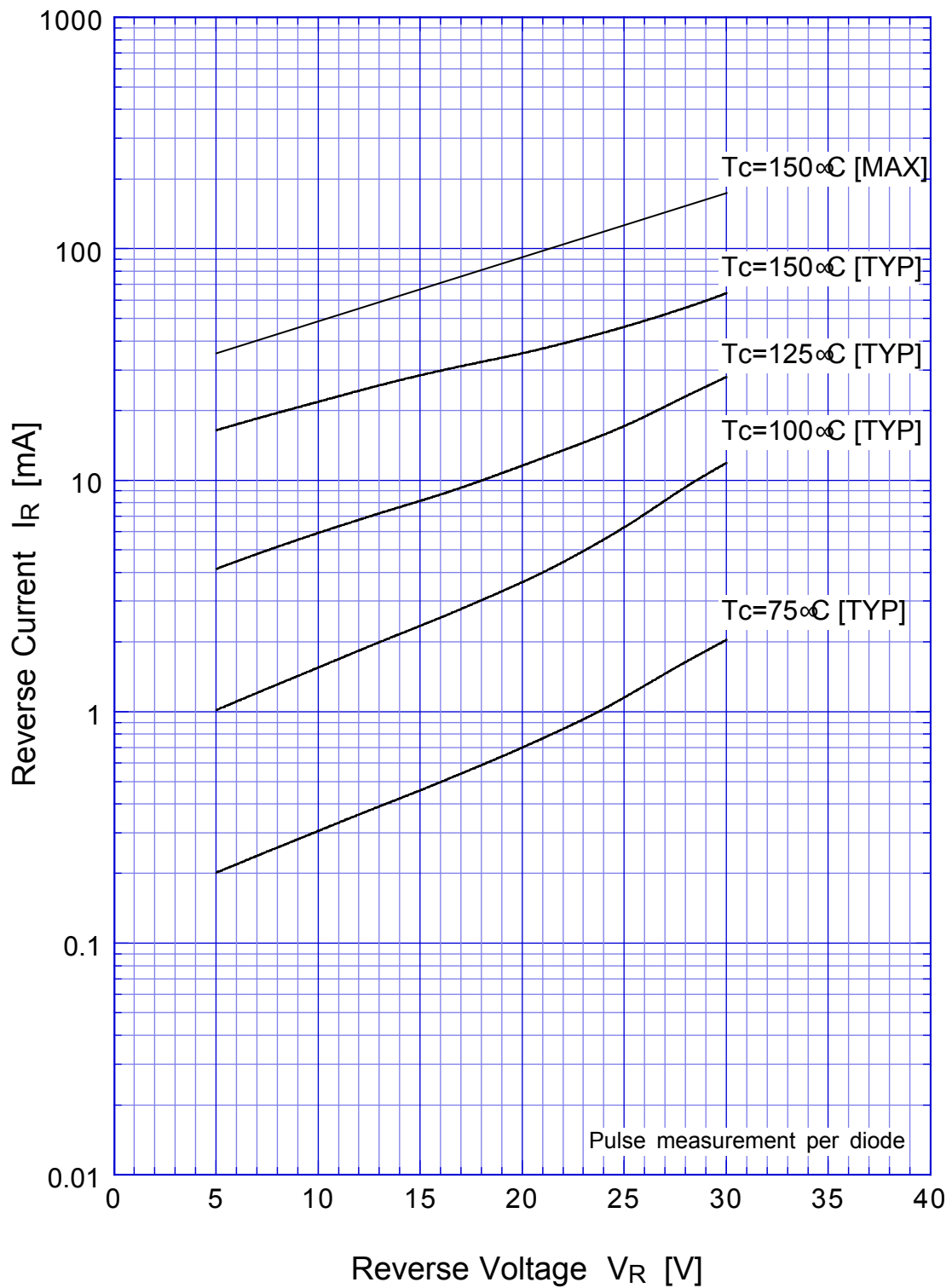
DE5SC3ML Forward Voltage



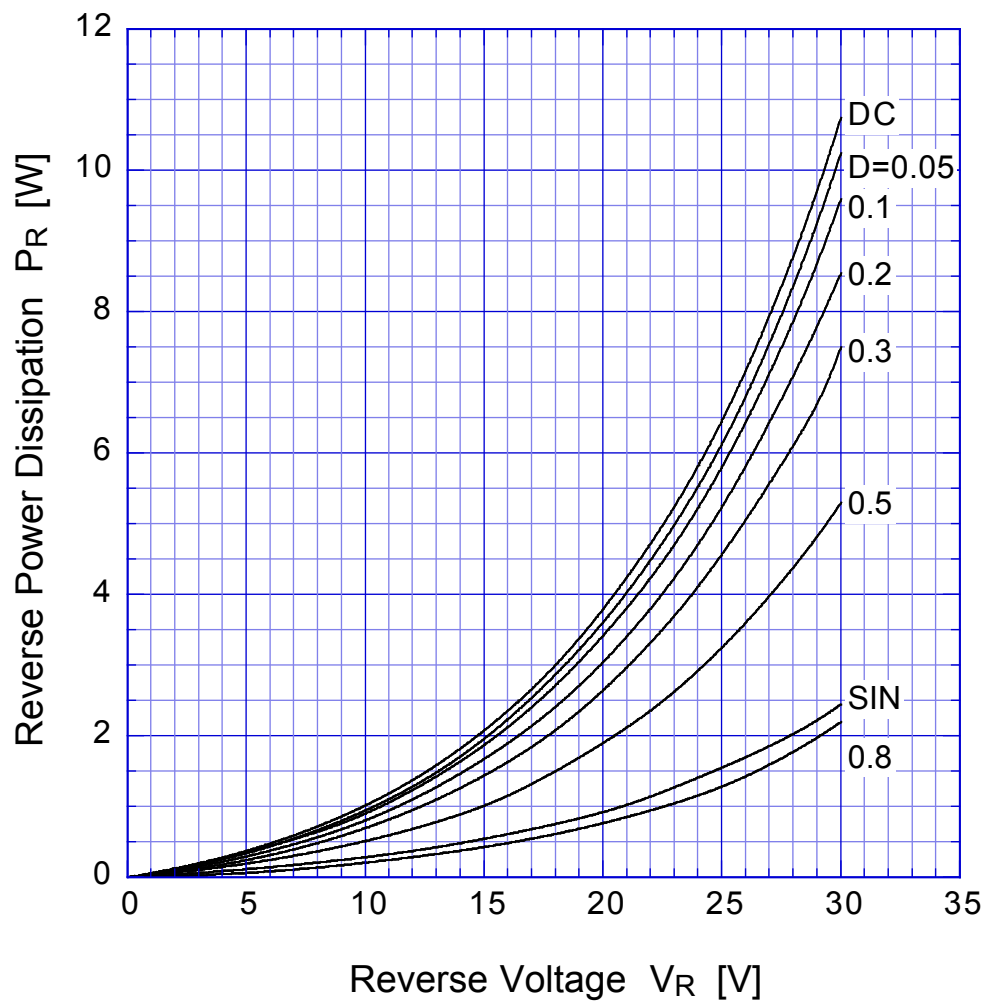
DE5SC3ML Junction Capacitance



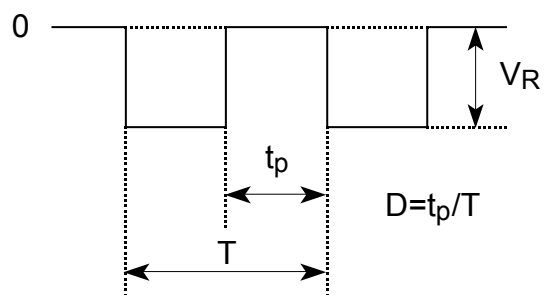
DE5SC3ML Reverse Current



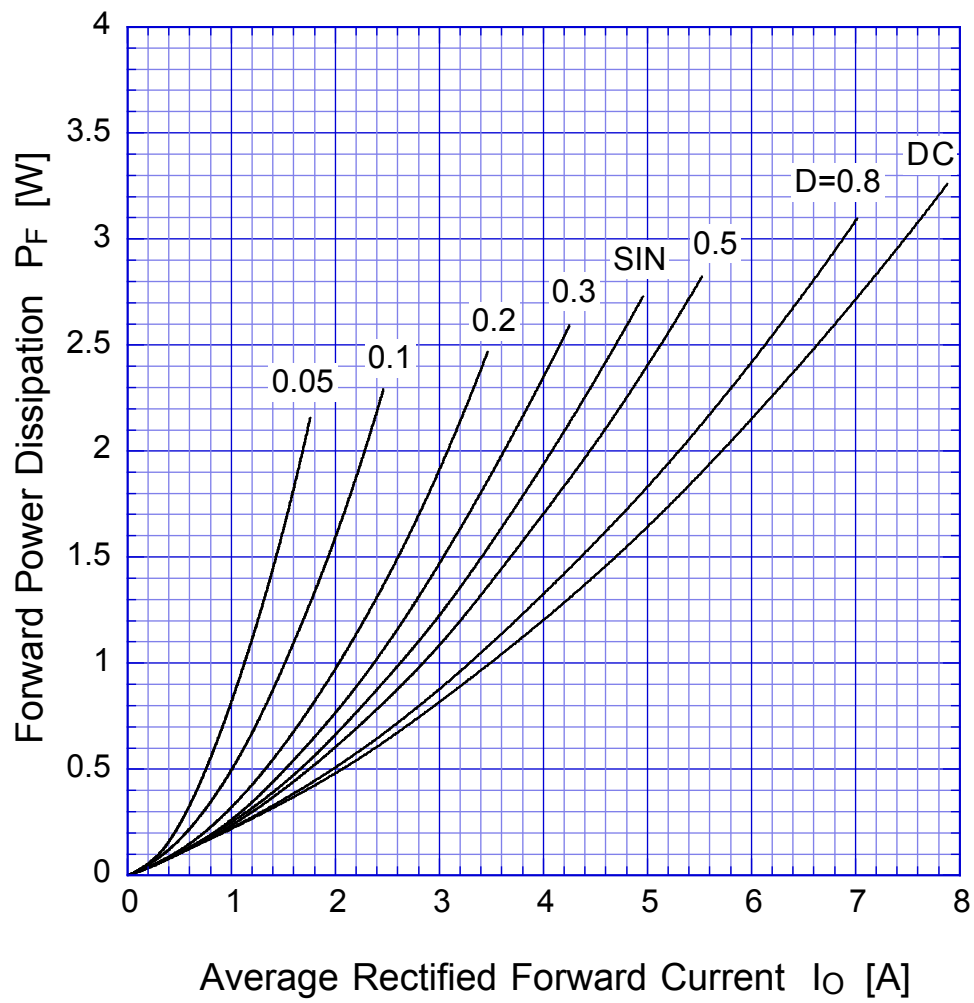
DE5SC3ML Reverse Power Dissipation



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



DE5SC3ML Forward Power Dissipation

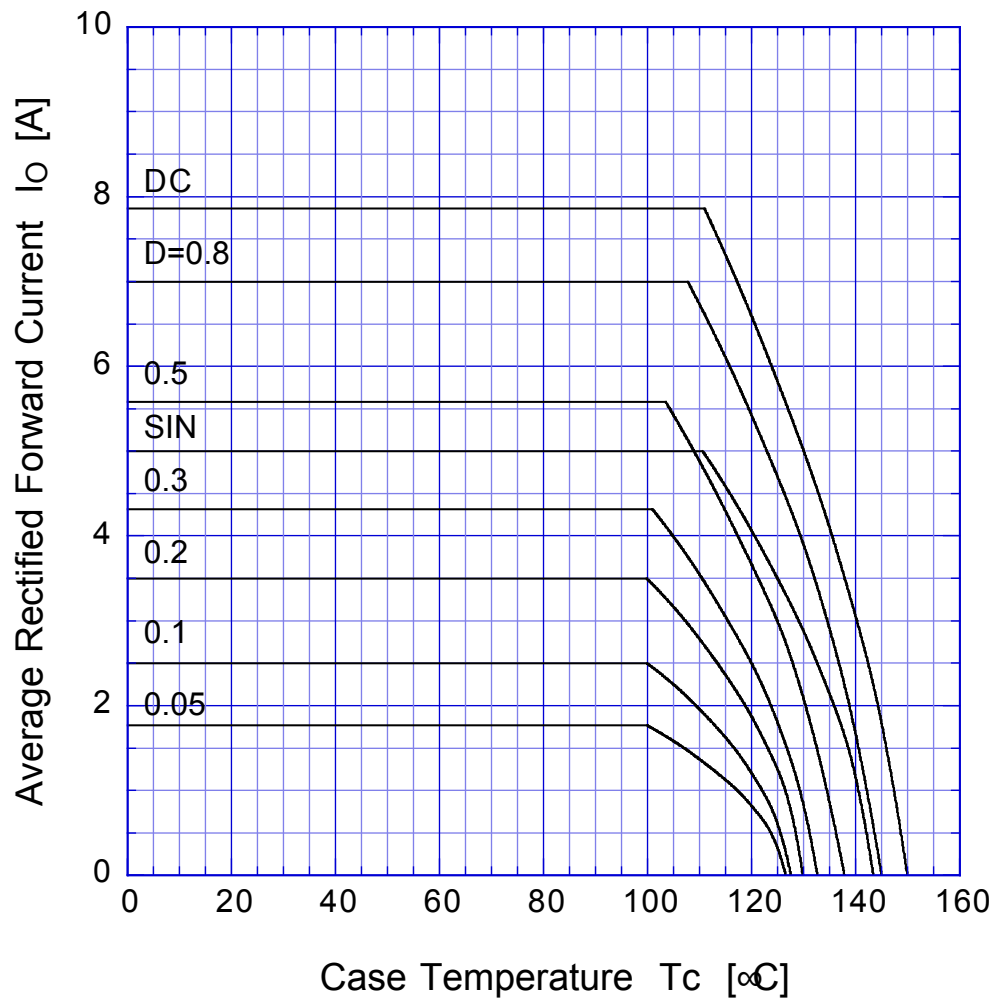


$T_j = 150^\circ\text{C}$

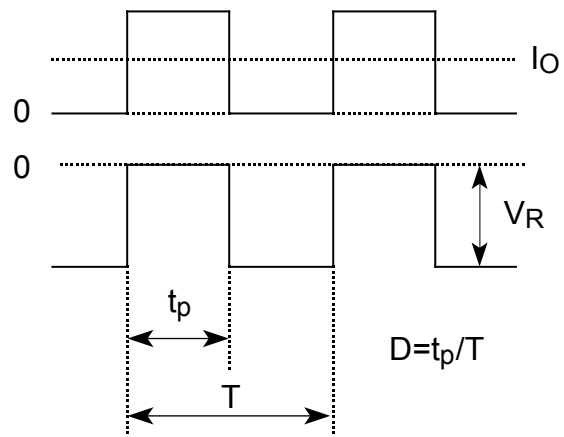


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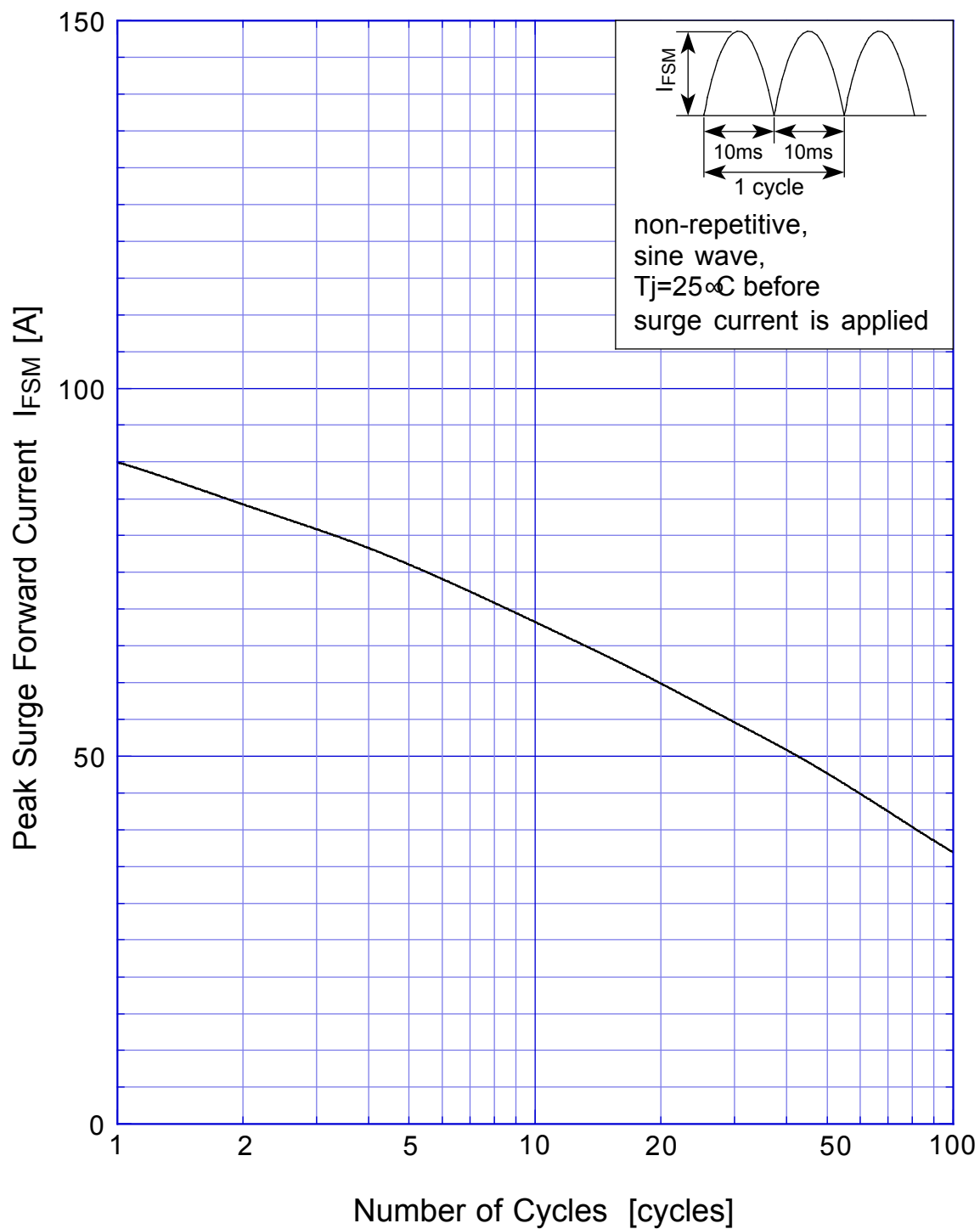
Derating Curve



$V_R = 15V$



DE5SC3ML Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



