

SHINDENGEN

Schottky Rectifiers (SBD)

Single

DE3S4M

40V 3A

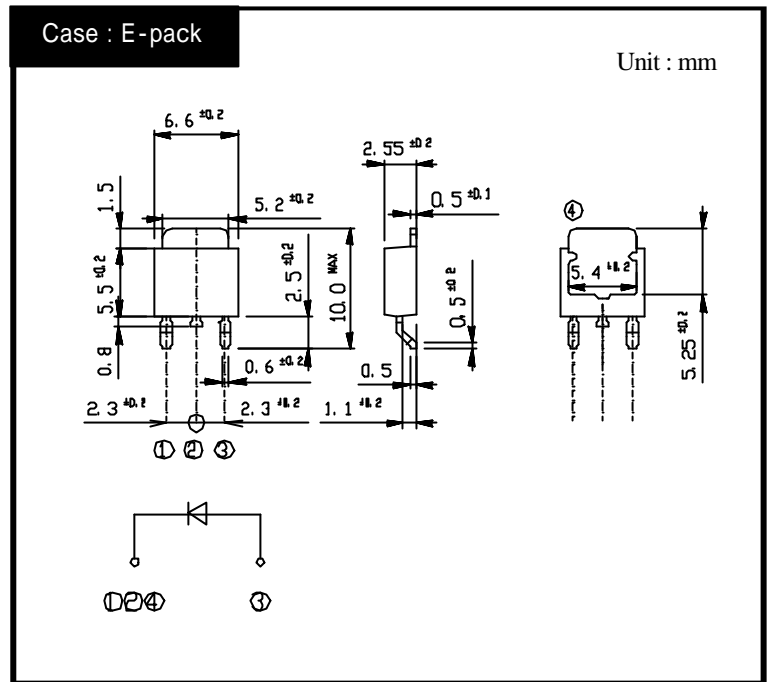
FEATURES

- 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



RATINGS

Absolute Maximum Ratings (If not specified T_c=25)

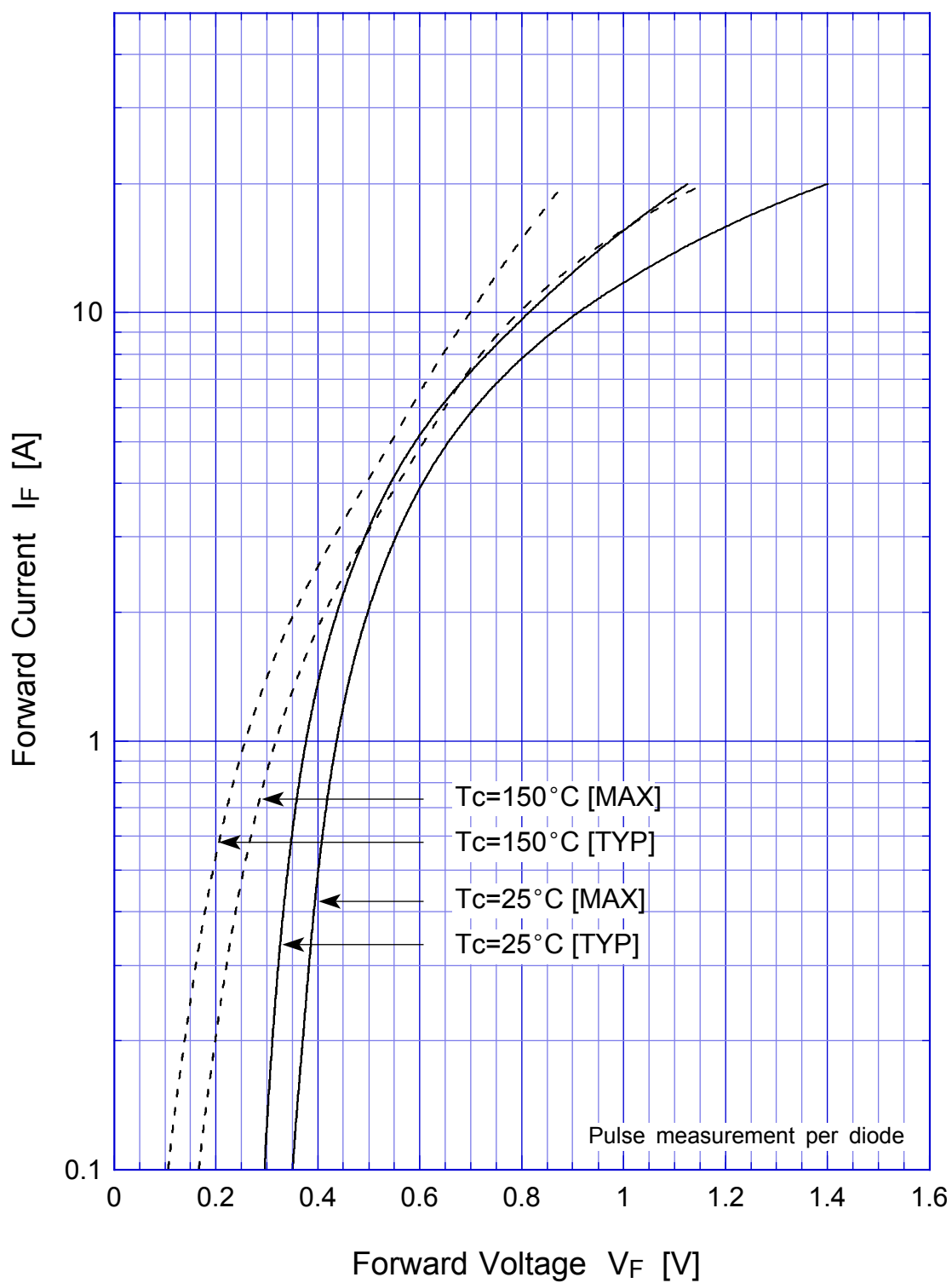
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-40 ~ 150	
Operating Junction Temperature	T _j		150	
Maximum Reverse Voltage	V _{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I _O	50Hz sine wave, R-load Ta=40 On alumina substrate	2.6	A
		50Hz sine wave, R-load Tc=121	3	
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125	70	A
Repetitive Peak Surge Reverse Power	P _{RRSM}	Pulse width 10 μs, Tj=25	330	W

Electrical Characteristics (If not specified T_c=25)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F =3A, Pulse measurement	Max.0.55	V
Reverse Current	I _R	V _R =V _{RM} , Pulse measurement	Max.2.5	mA
Junction Capacitance	C _j	f=1MHz, V _R =10V	Typ.150	pF
Thermal Resistance	j _c	junction to case	Max.12	/W
	j _a	junction to ambient	Max.55	

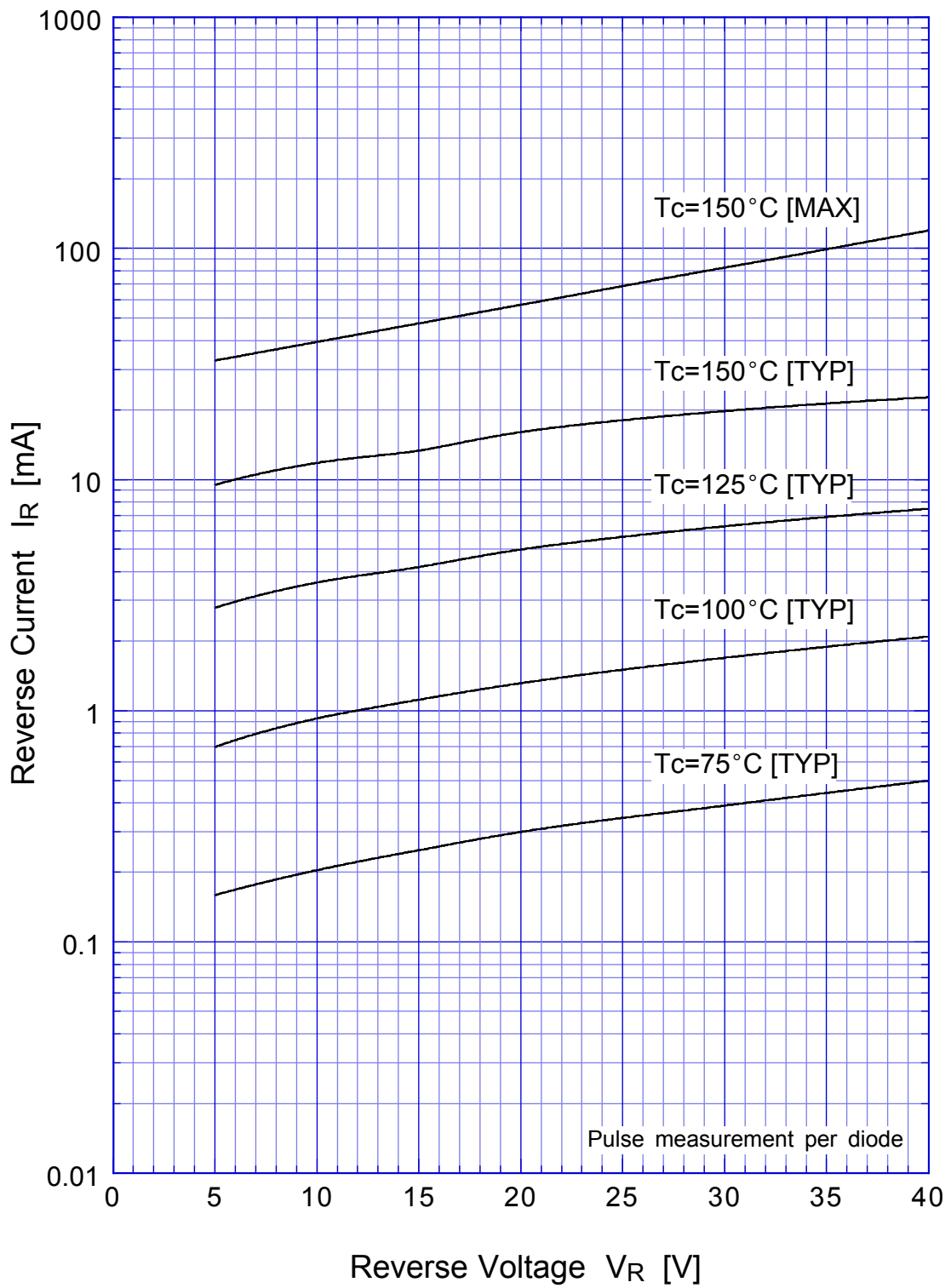
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Forward Voltage

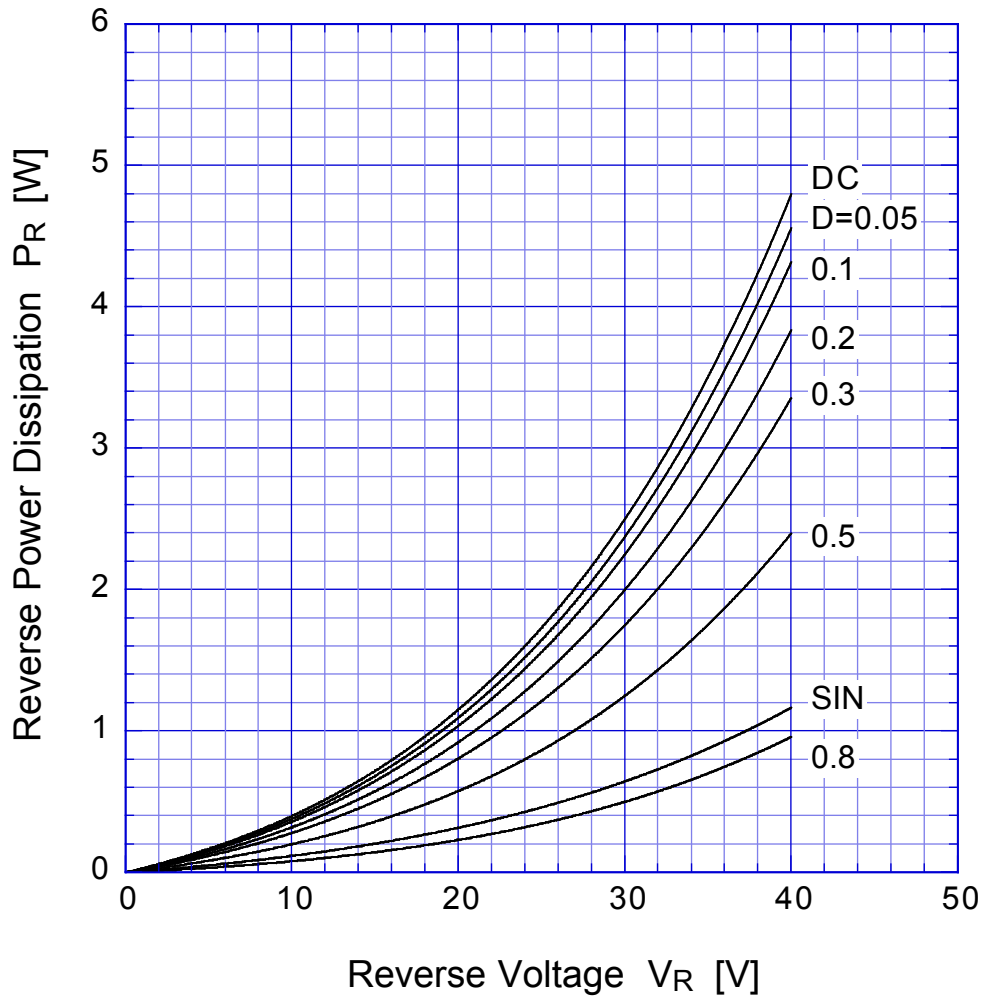


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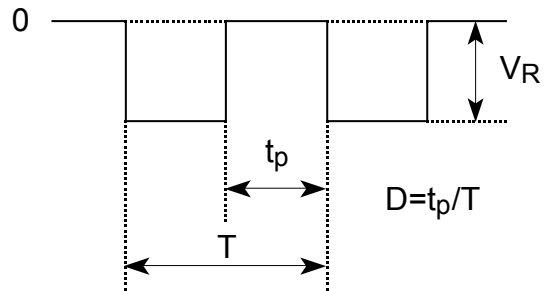
Reverse Current



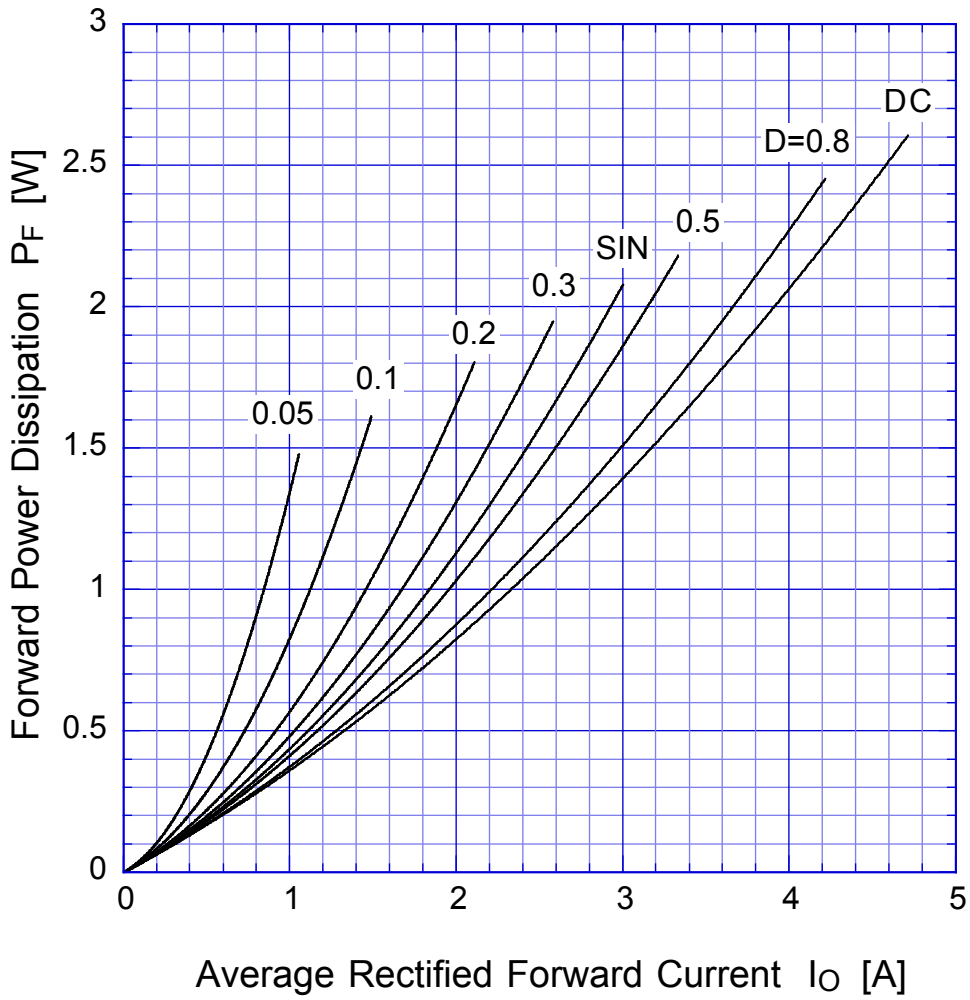
DE3S4M Reverse Power Dissipation



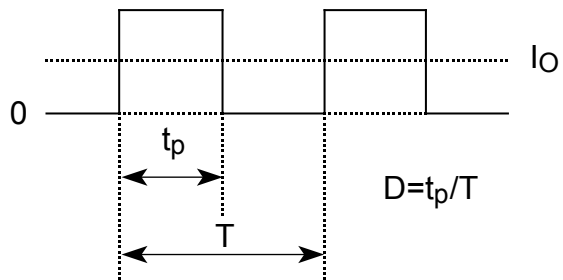
$T_j = 150^\circ\text{C}$



DE3S4M Forward Power Dissipation

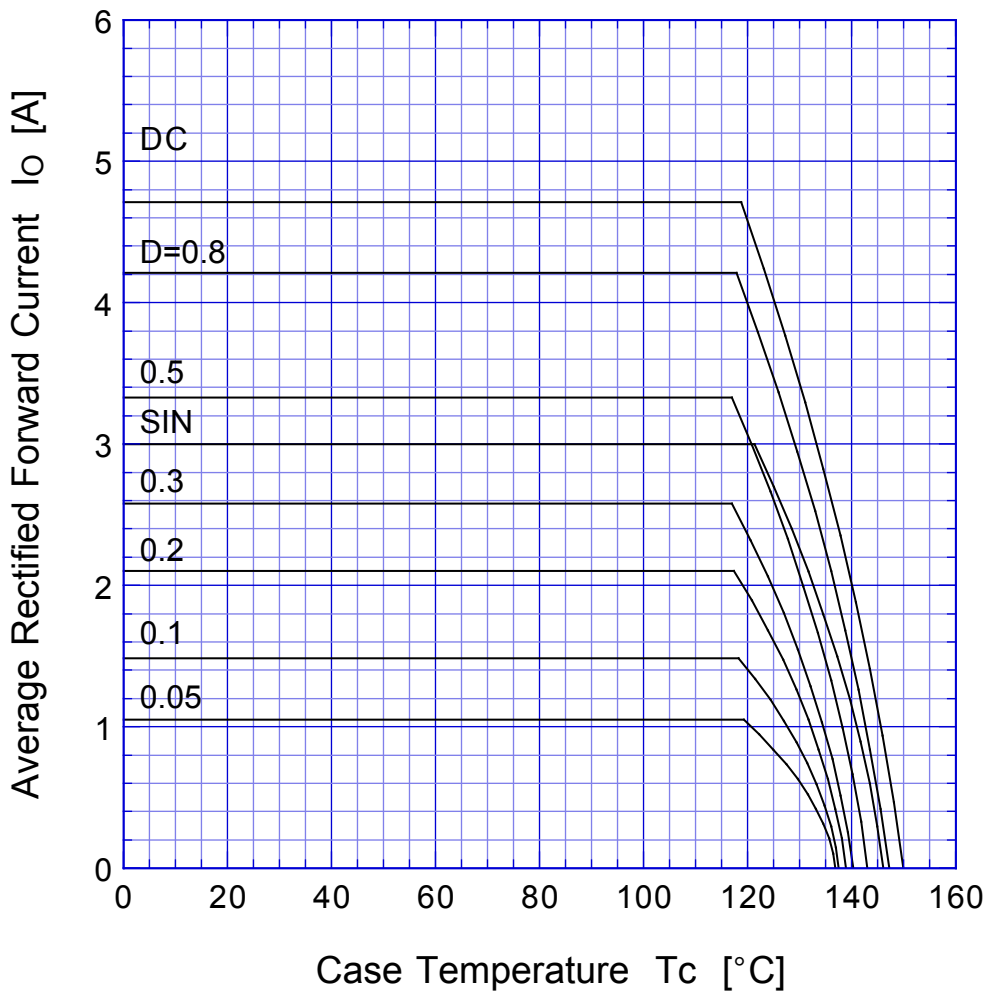


$T_j = 150^\circ\text{C}$

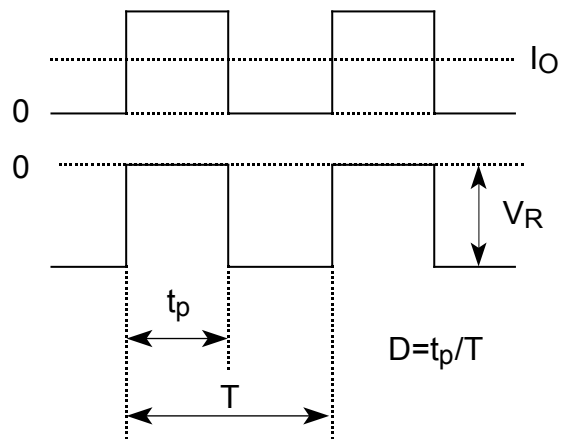


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Derating Curve

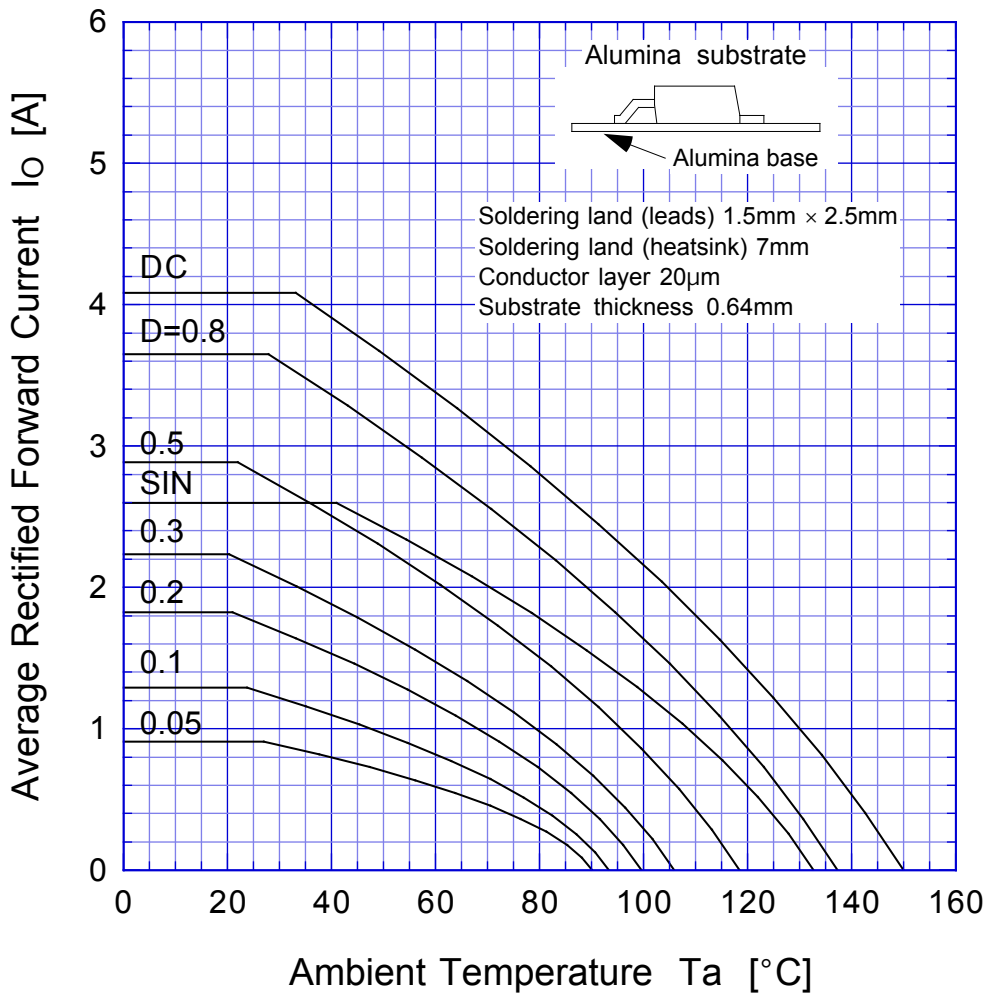


$V_R = 20V$



DE3S4M

Derating Curve

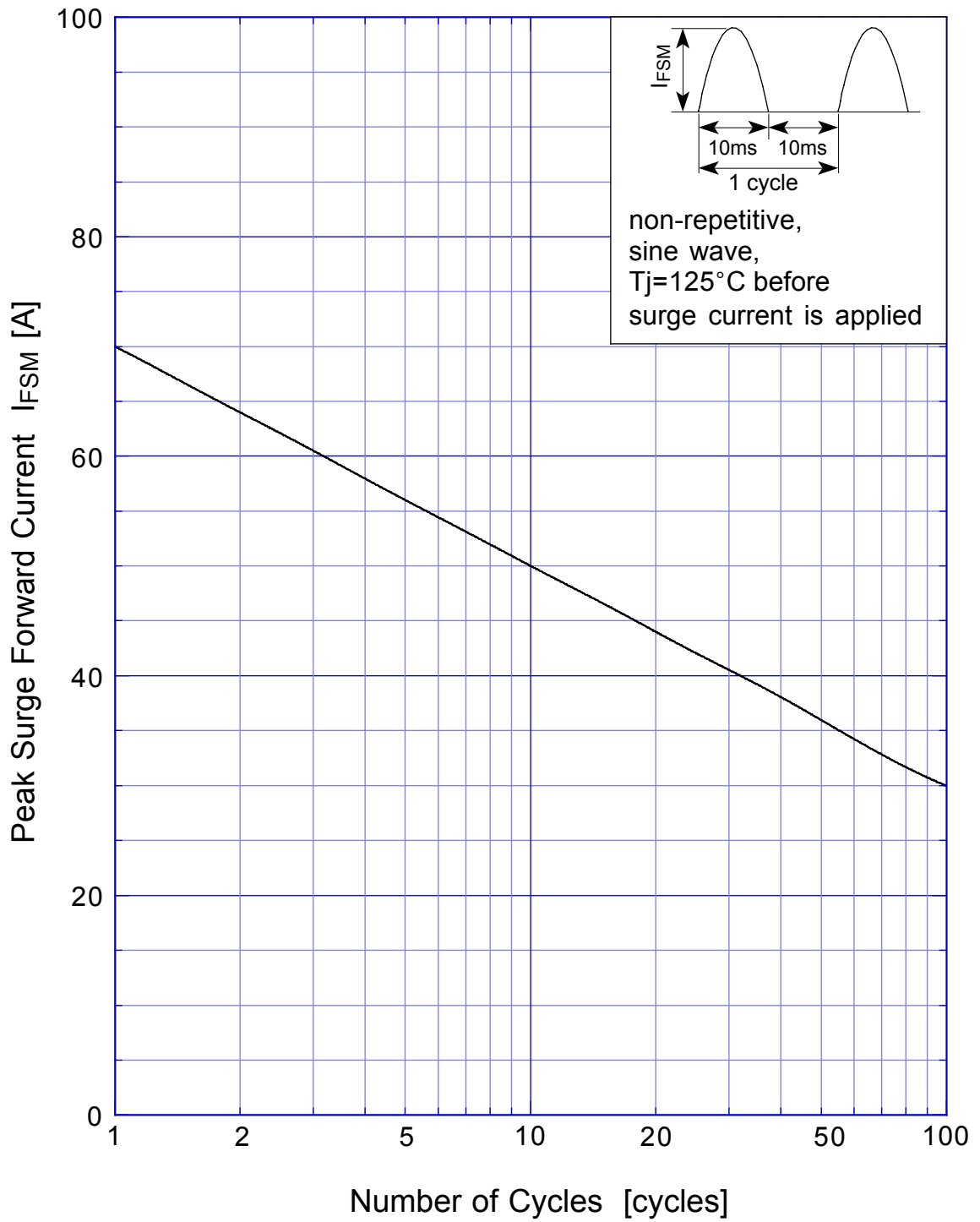


$V_R = 20V$



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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

