SHINDENGEN

Schottky Rectifiers (SBD)

Dual

DE5SC6M

60V 5A

FEATURES

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

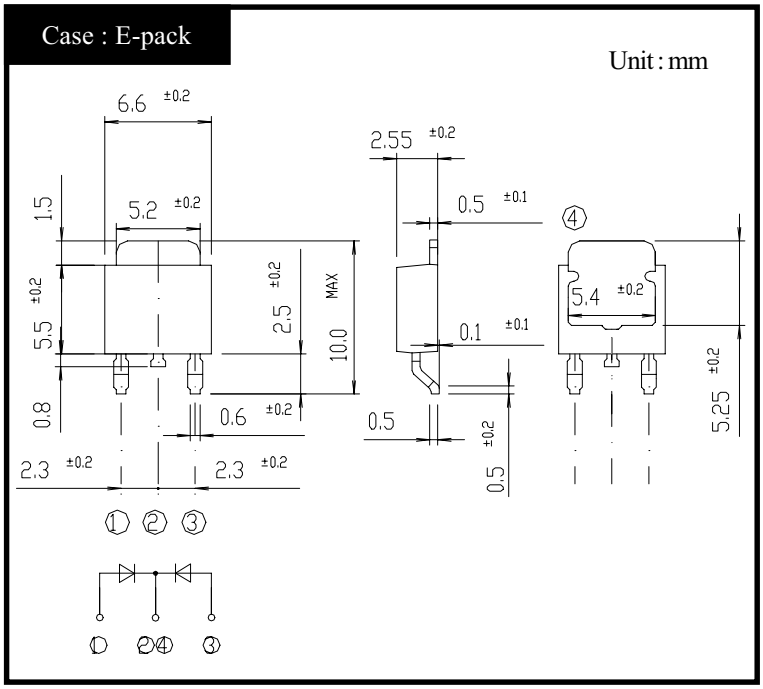
APPLICATION

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

OUTLINE DIMENSIONS

Case : E-pack

Unit : mm



RATINGS

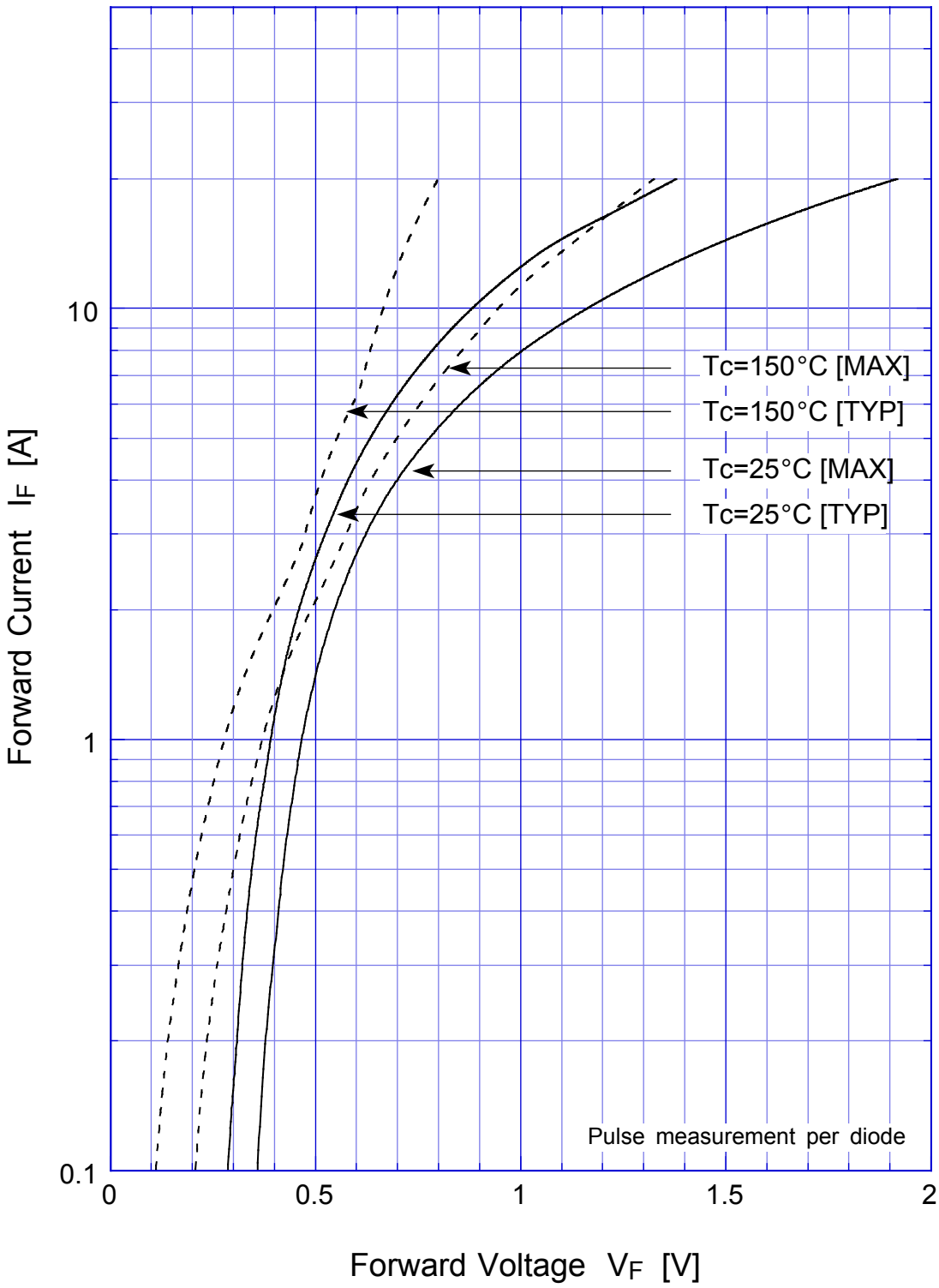
●Absolute Maximum Ratings (If not specified Tc=25℃)

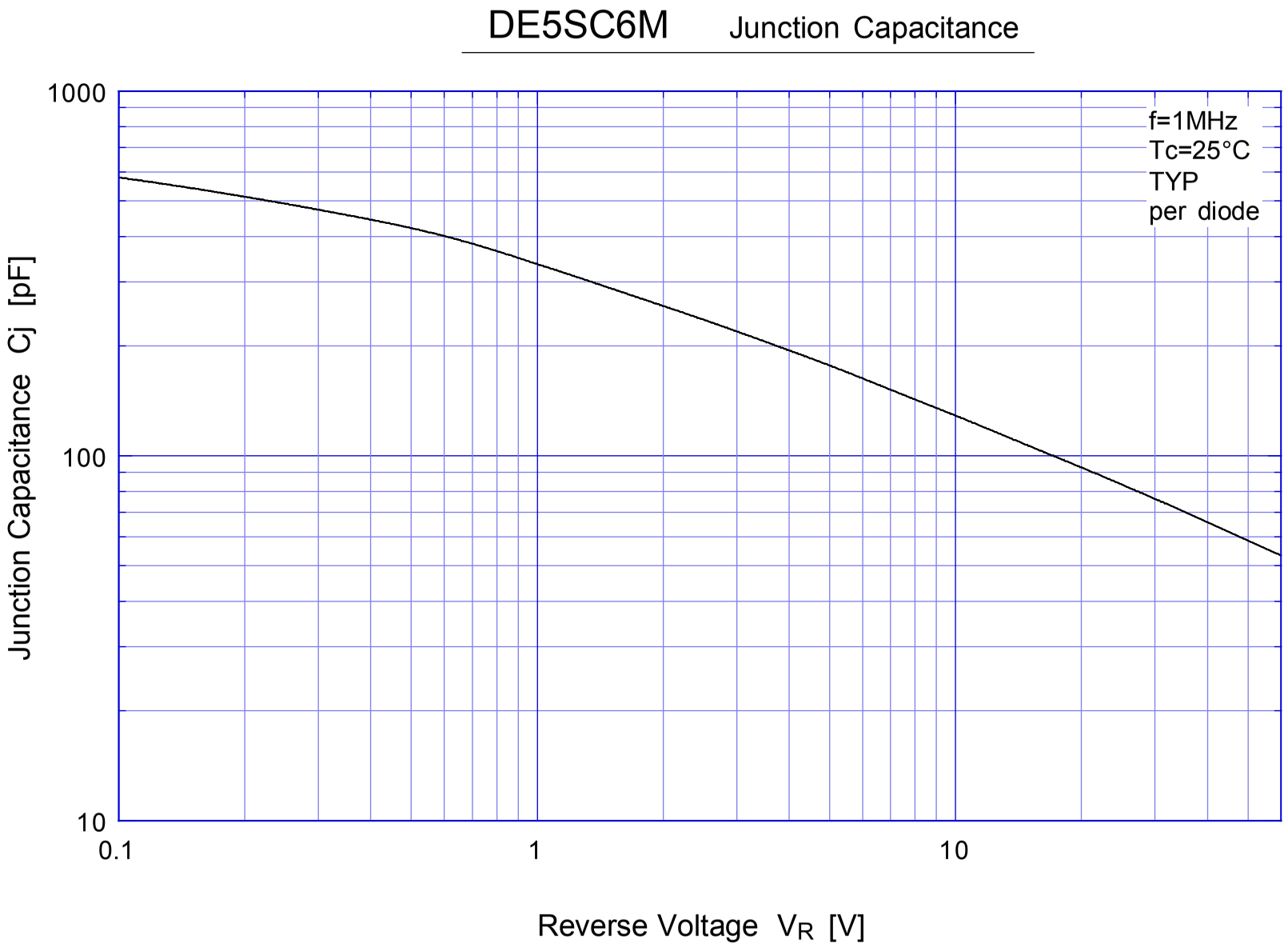
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Rating for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

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

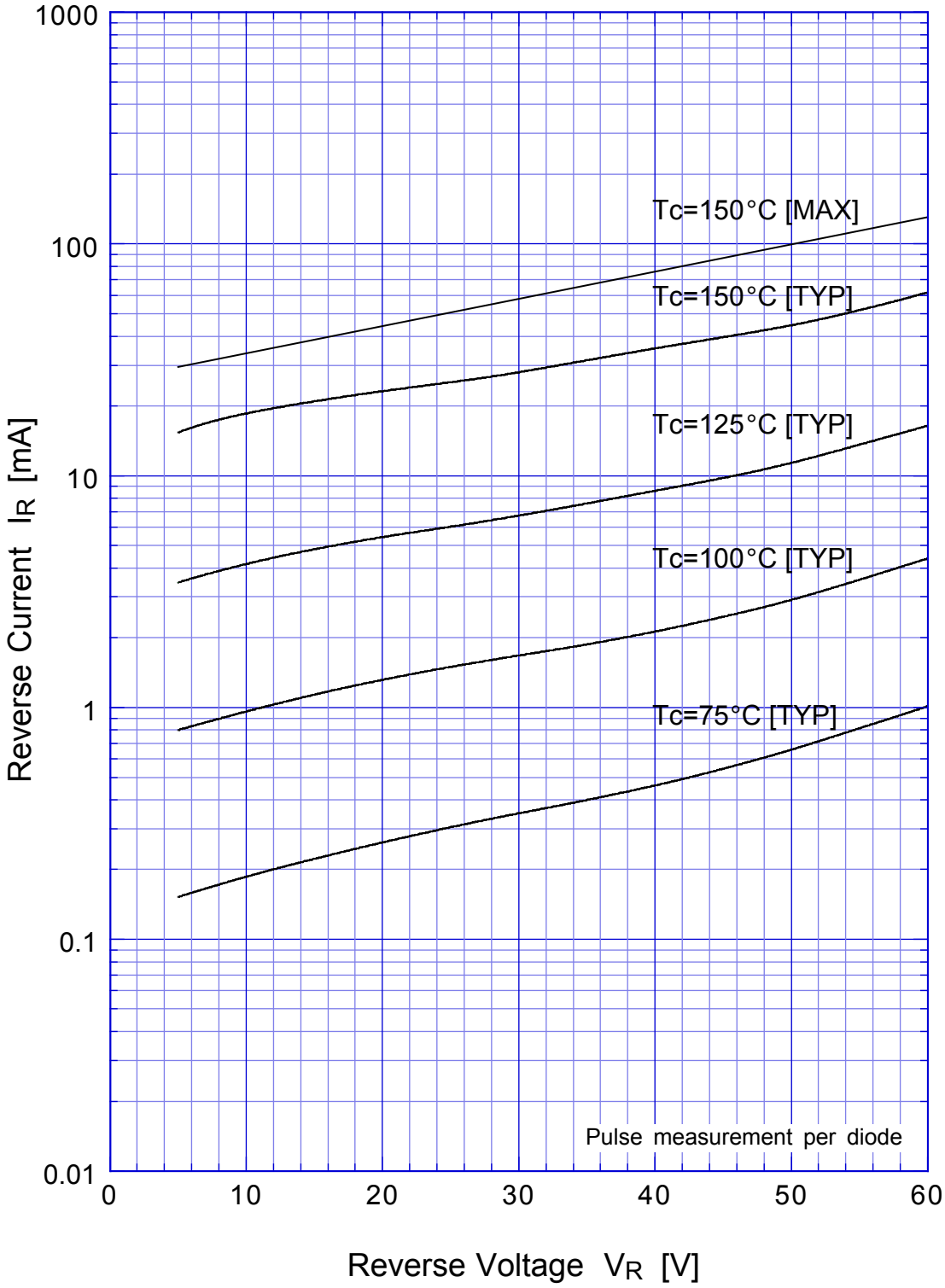
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=2.5A, Pulse measurement, Rating of per diode	Max.0.58	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement, Rating of per diode	Max.2.5	mA
Junction Capacitance	Cj	f=1MHz, V_R=10V, Rating of per diode	Typ.130	pF
Thermal Resistance	θ jc	junction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

DE5SC6M Forward Voltage

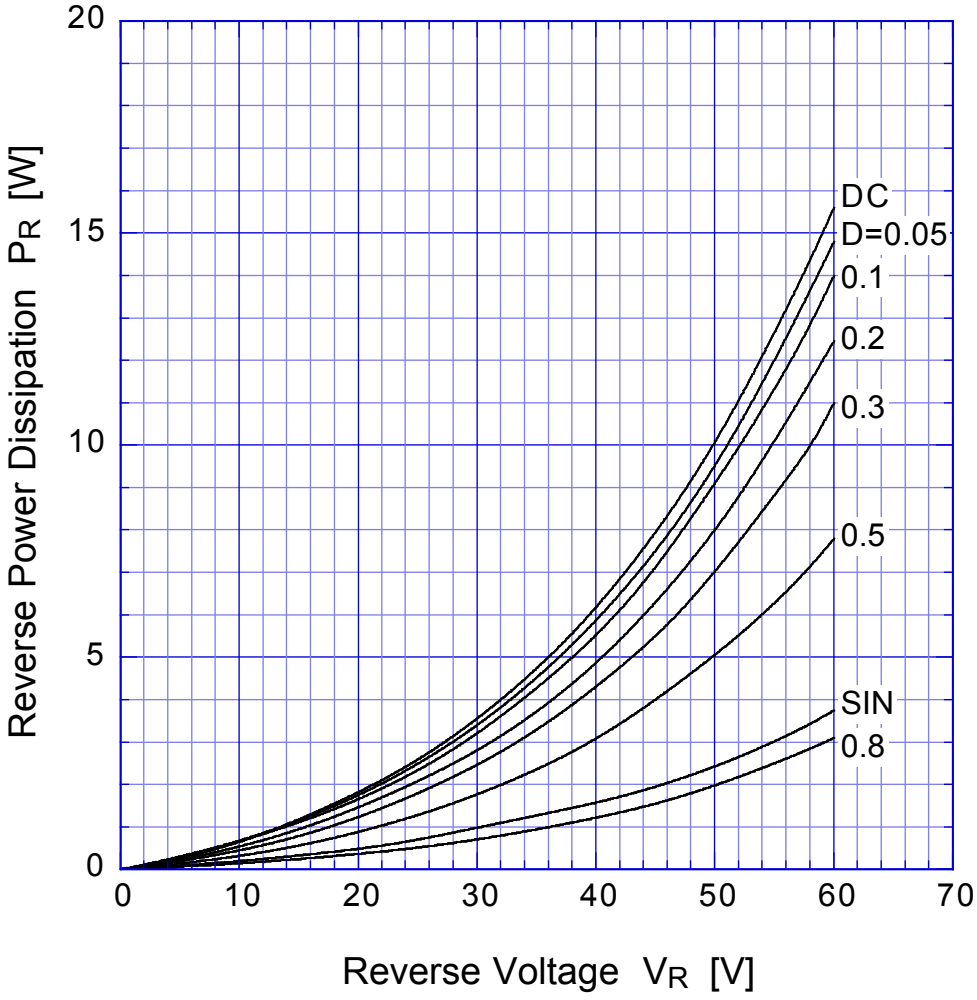



DE5SC6M Junction Capacitance
1000
100
10
0.1
1
10
f=1MHz
Tc=25°C
TYP
per diode
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]

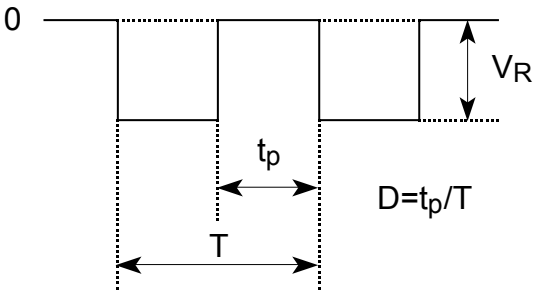
DE5SC6M Reverse Current



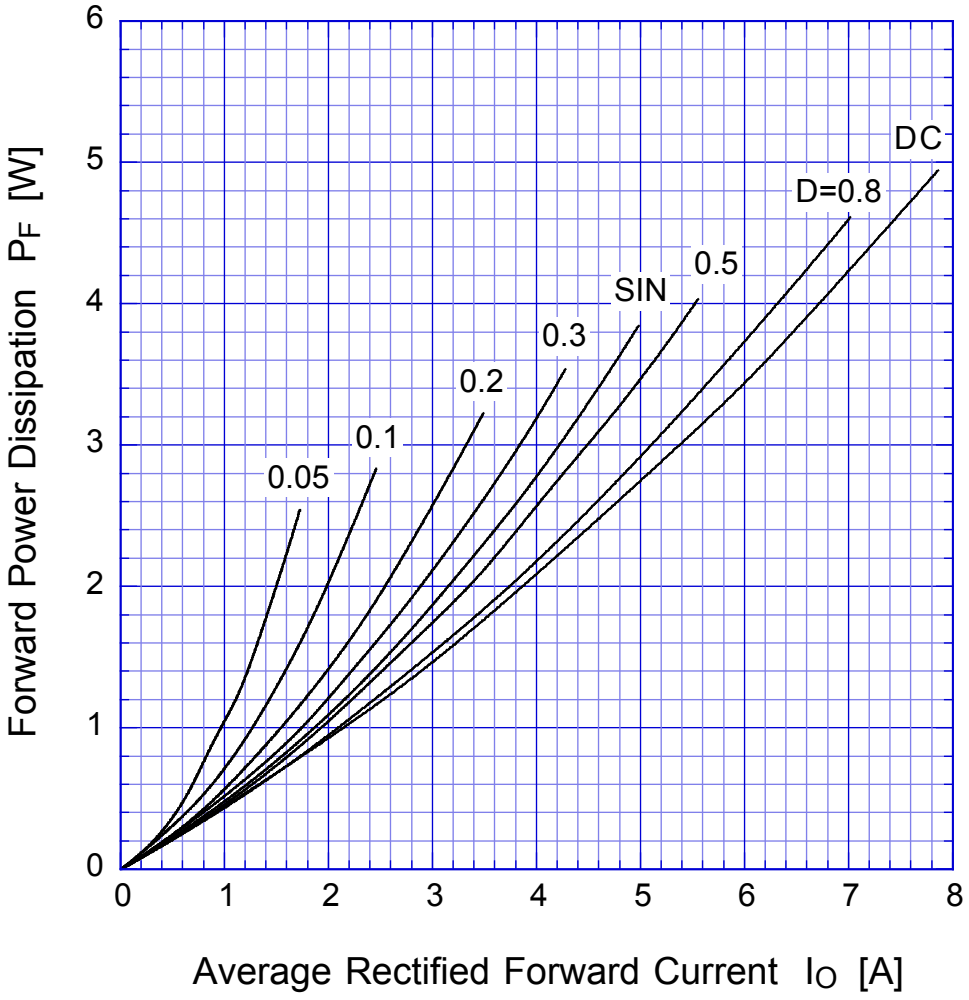
DE5SC6M Reverse Power Dissipation



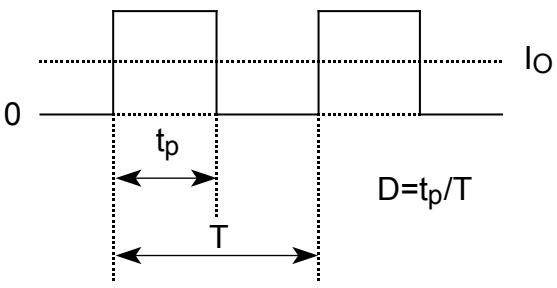
Tj = 150°C



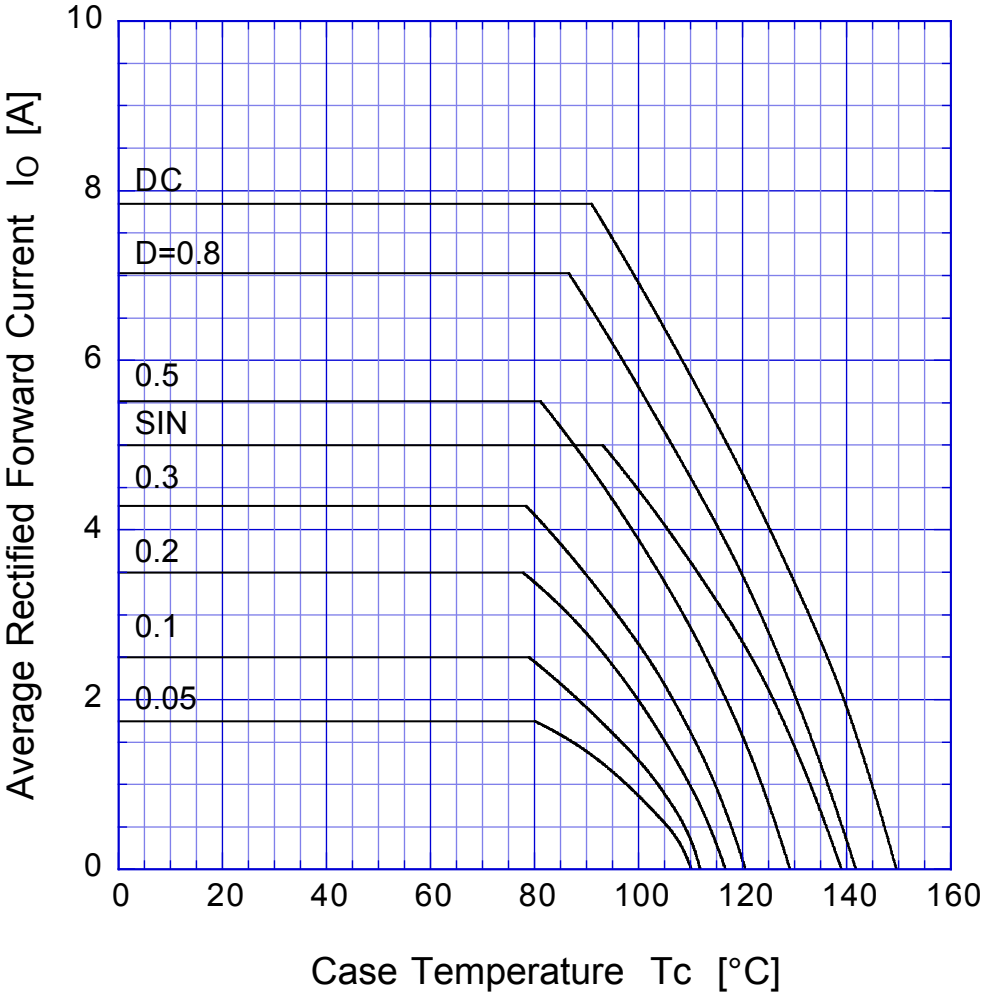
DE5SC6M Forward Power Dissipation



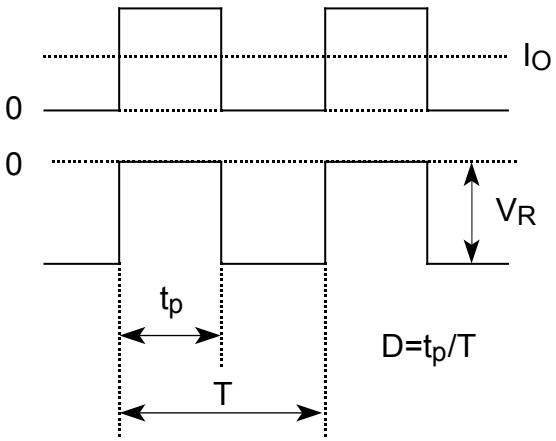
Tj = 150°C



DE5SC6M Derating Curve



V_R = 30V



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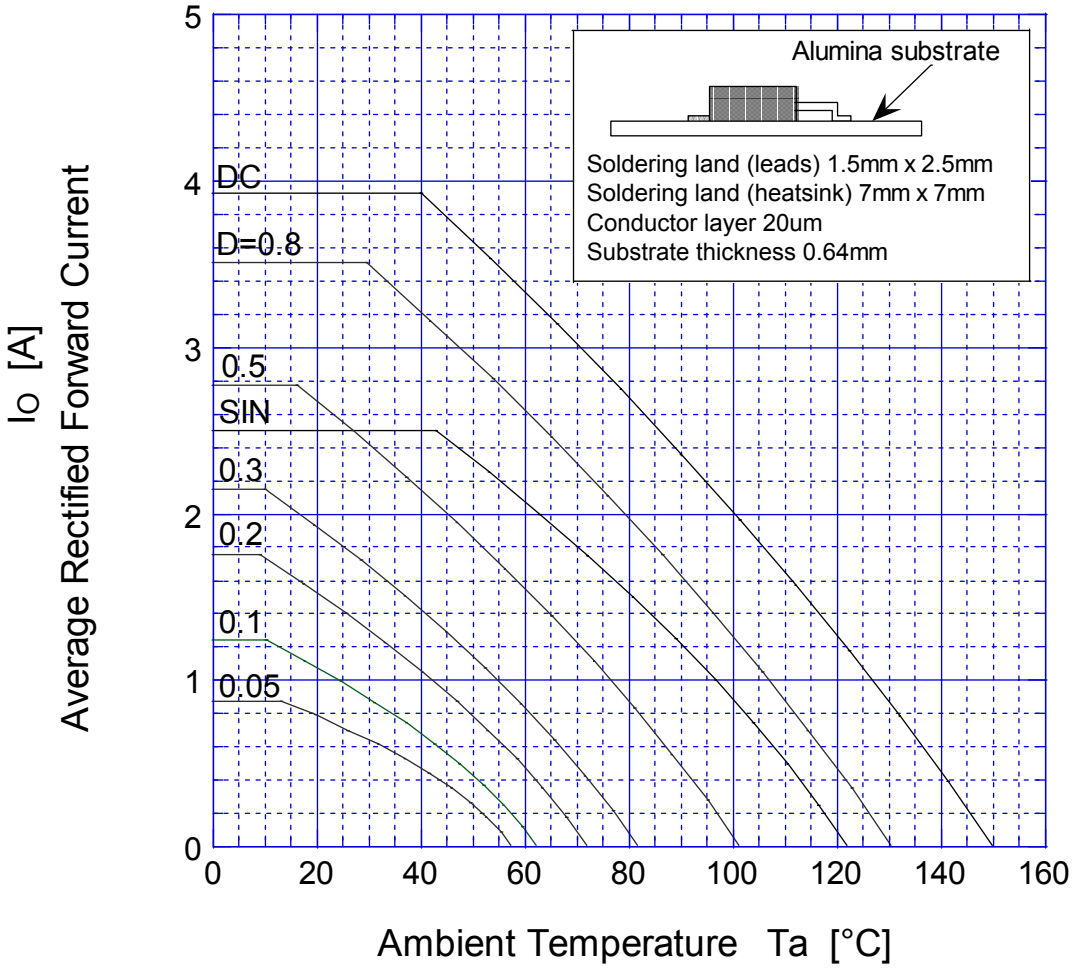

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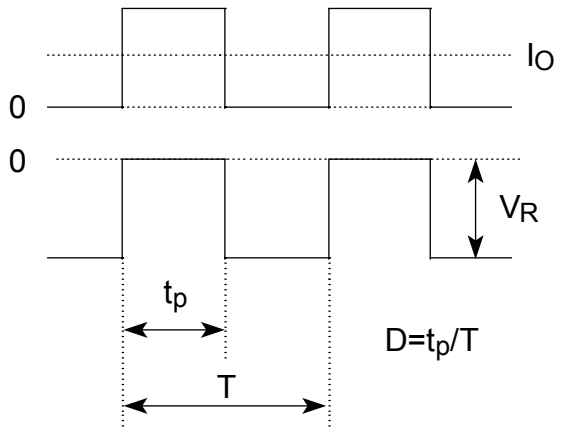
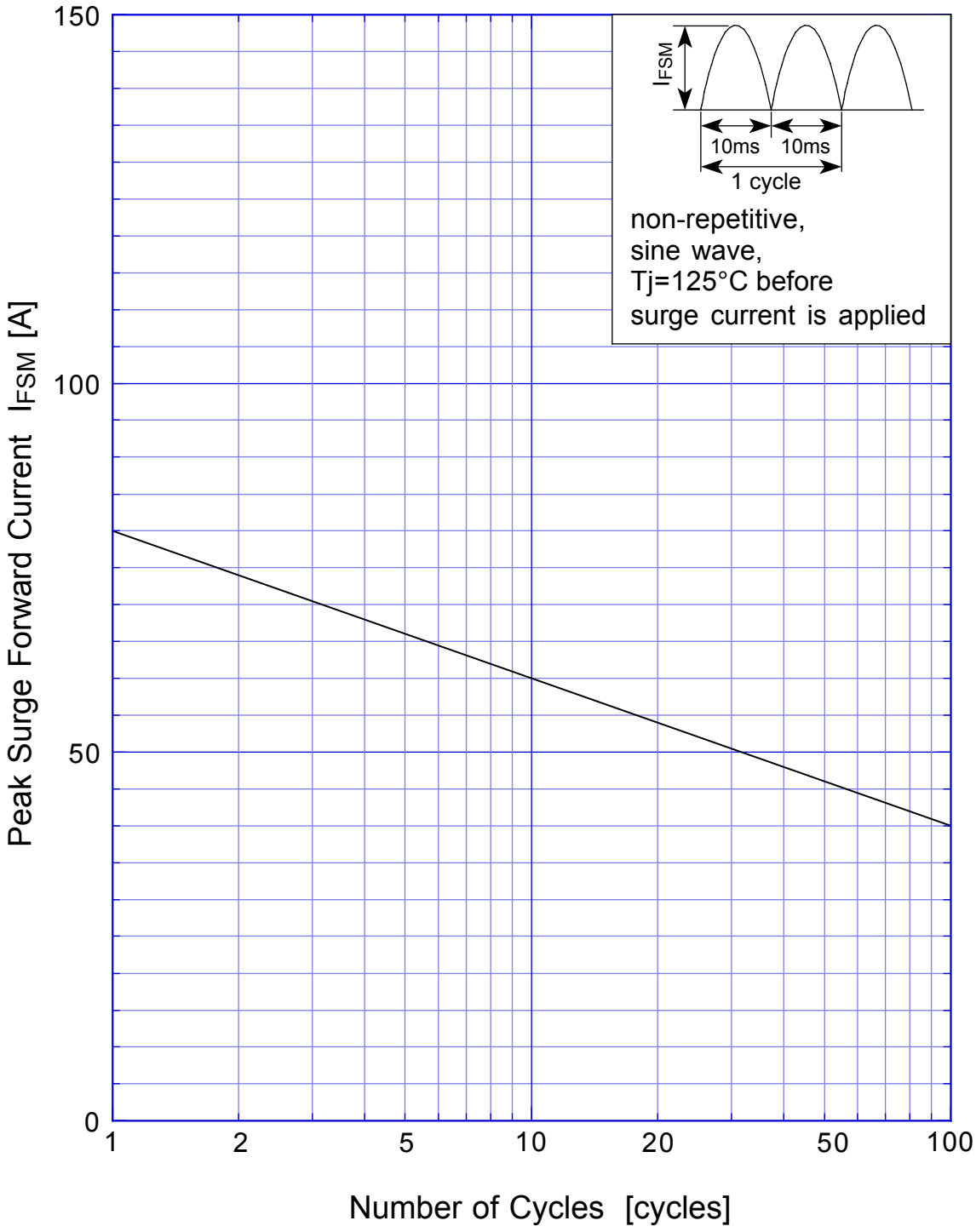
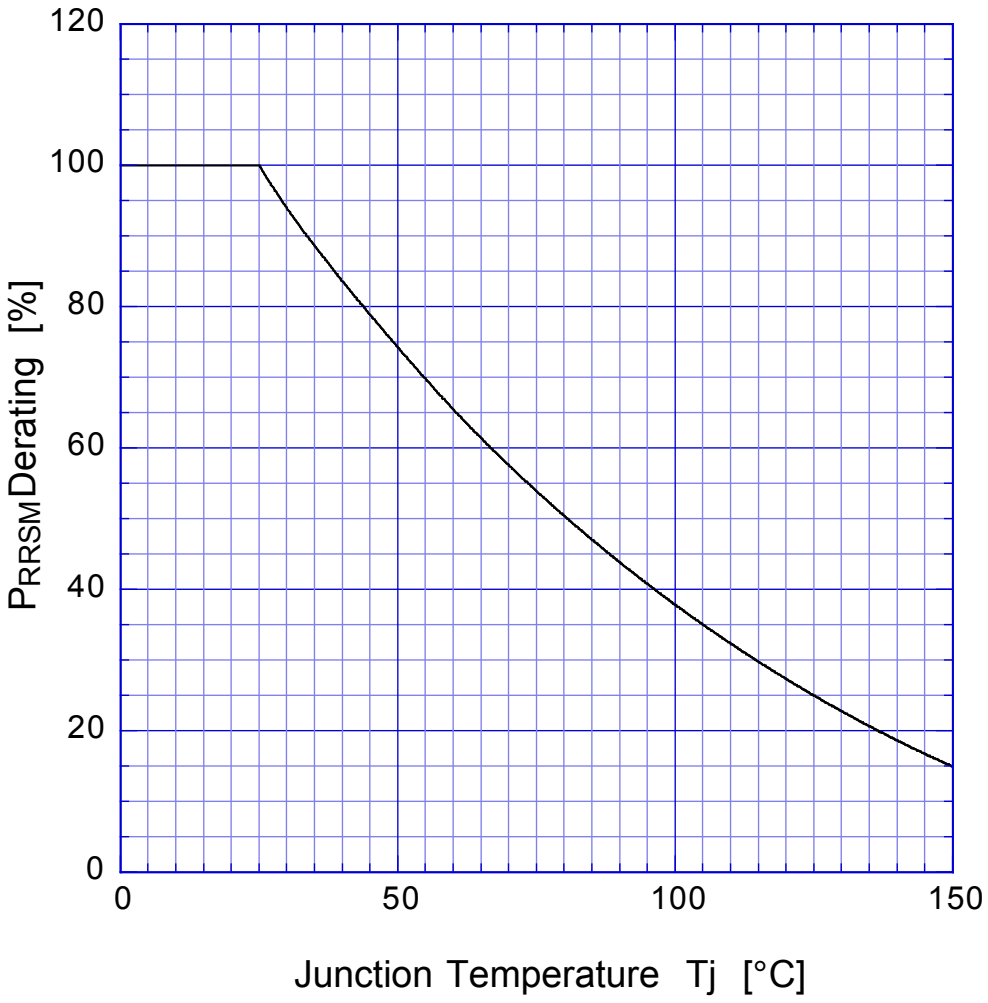
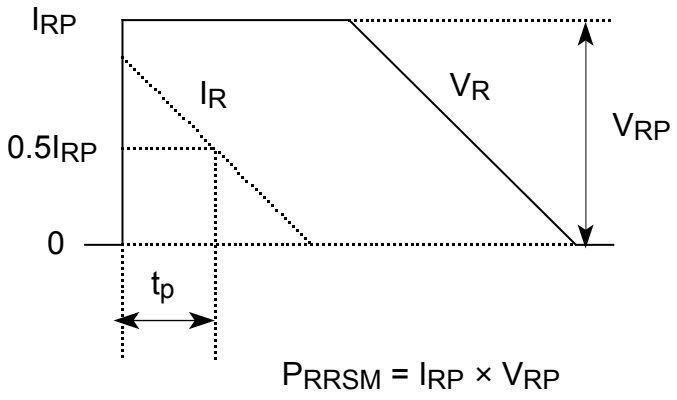


DE5SC6M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability