SHINDENGEN

Schottky Rectifiers (SBD)

Single

D2S4M

40V 2A

FEATURES

- Tj150°C
- PRRSM avalanche guaranteed
- 0.8φ lead

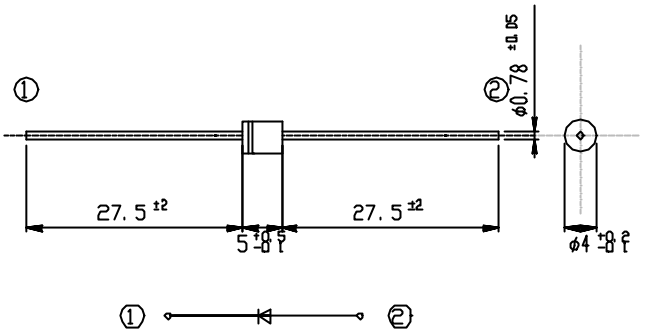
APPLICATION

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

OUTLINE DIMENSIONS

Case : AX078

Unit : mm



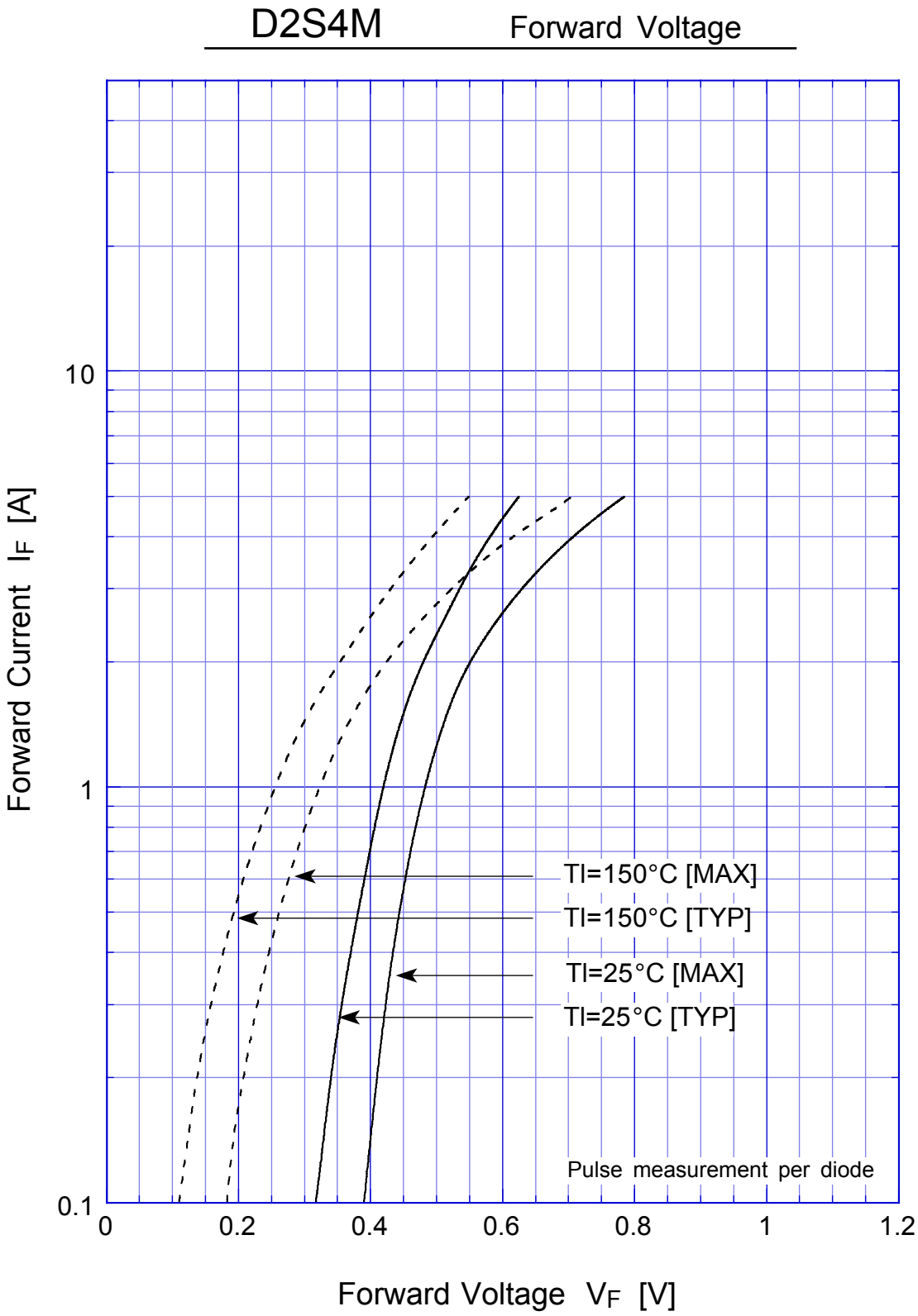
RATINGS

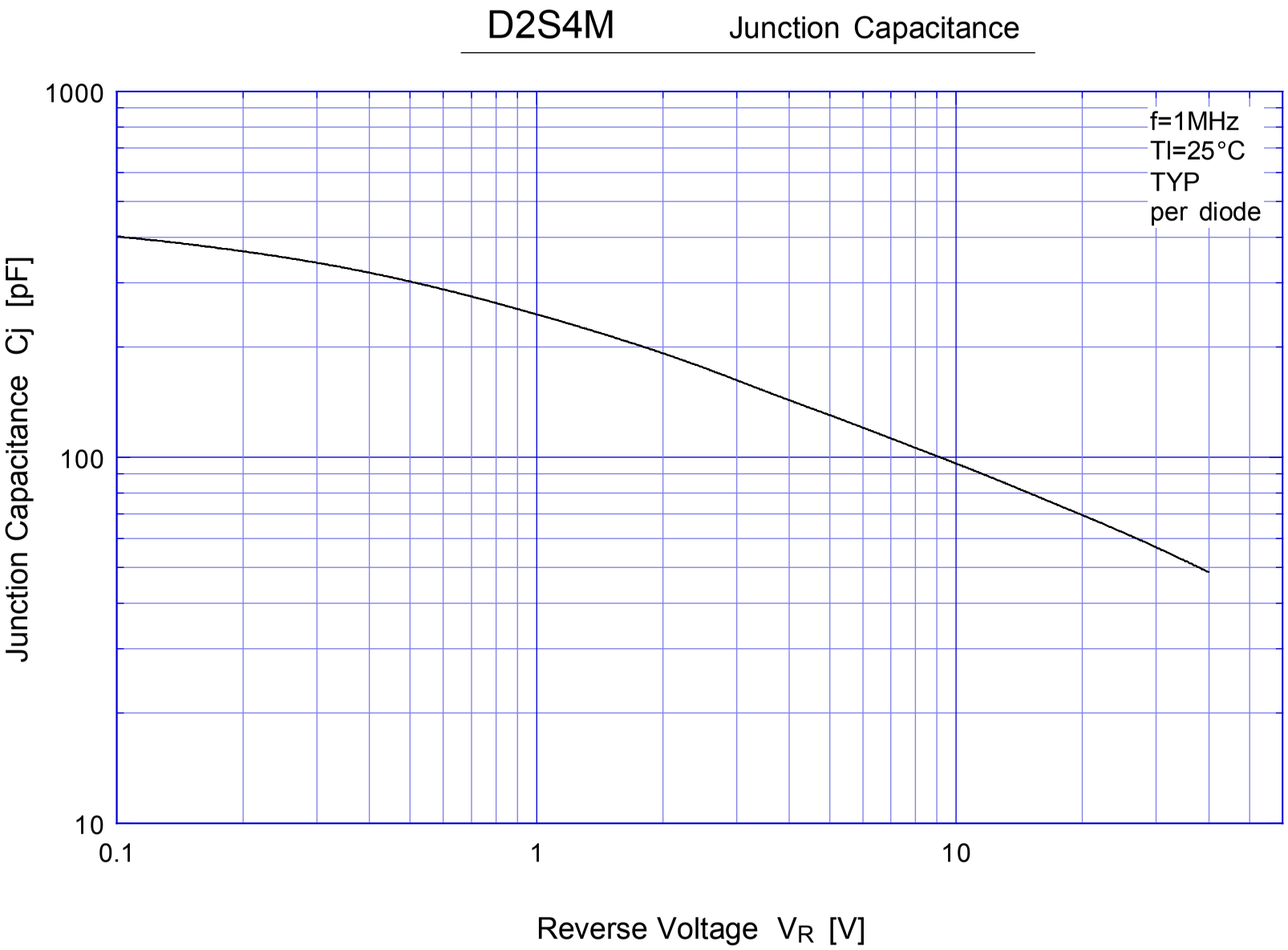
●Absolute Maximum Ratings (If not specified Tl=25°C)

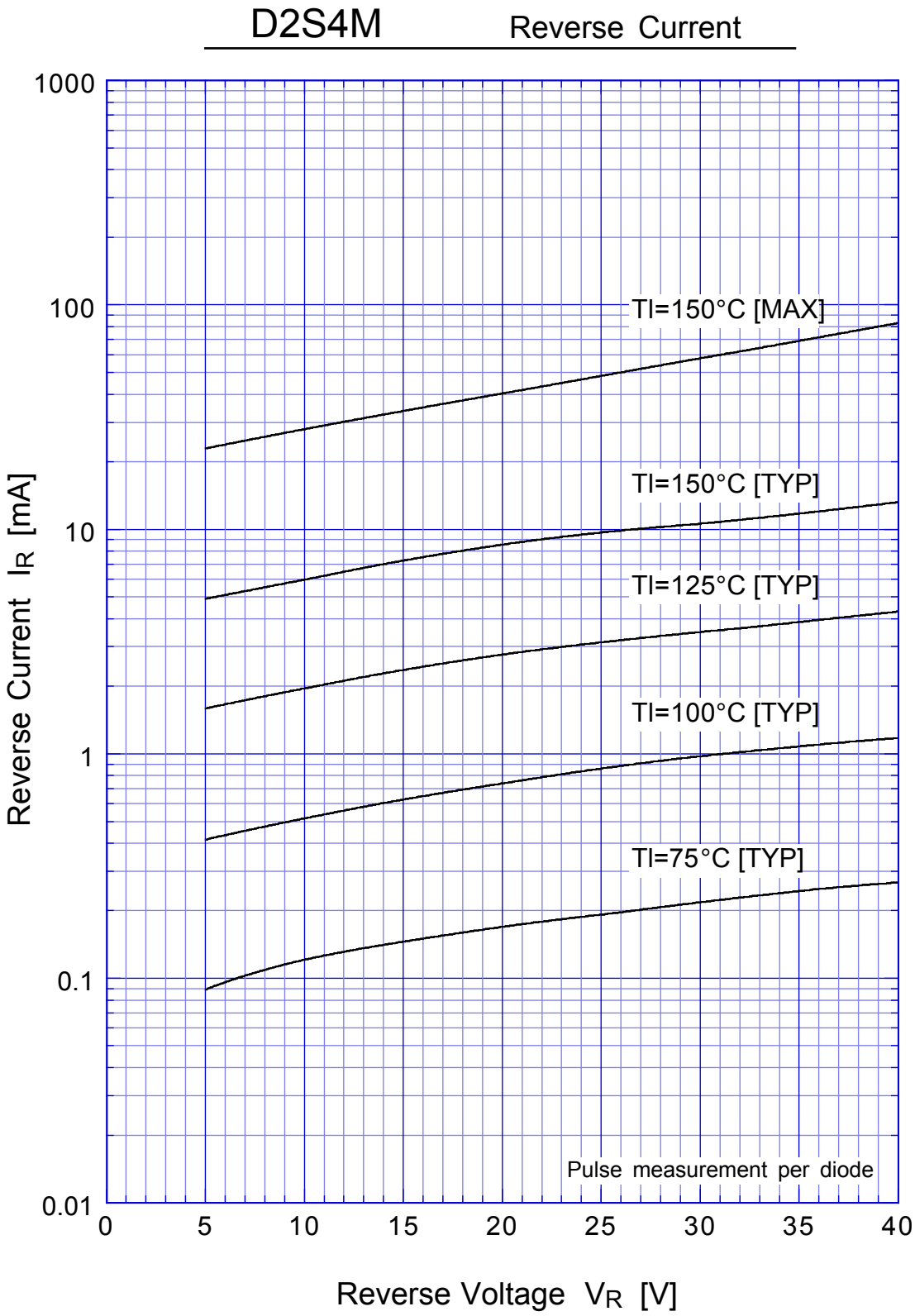
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40～150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load Ta=36°C	1.5	A
		50Hz sine wave, R-load Tl=122°C	2	
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	60	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10μs, Tj=25°C	160	W

●Electrical Characteristics (If not specified Tl=25°C)

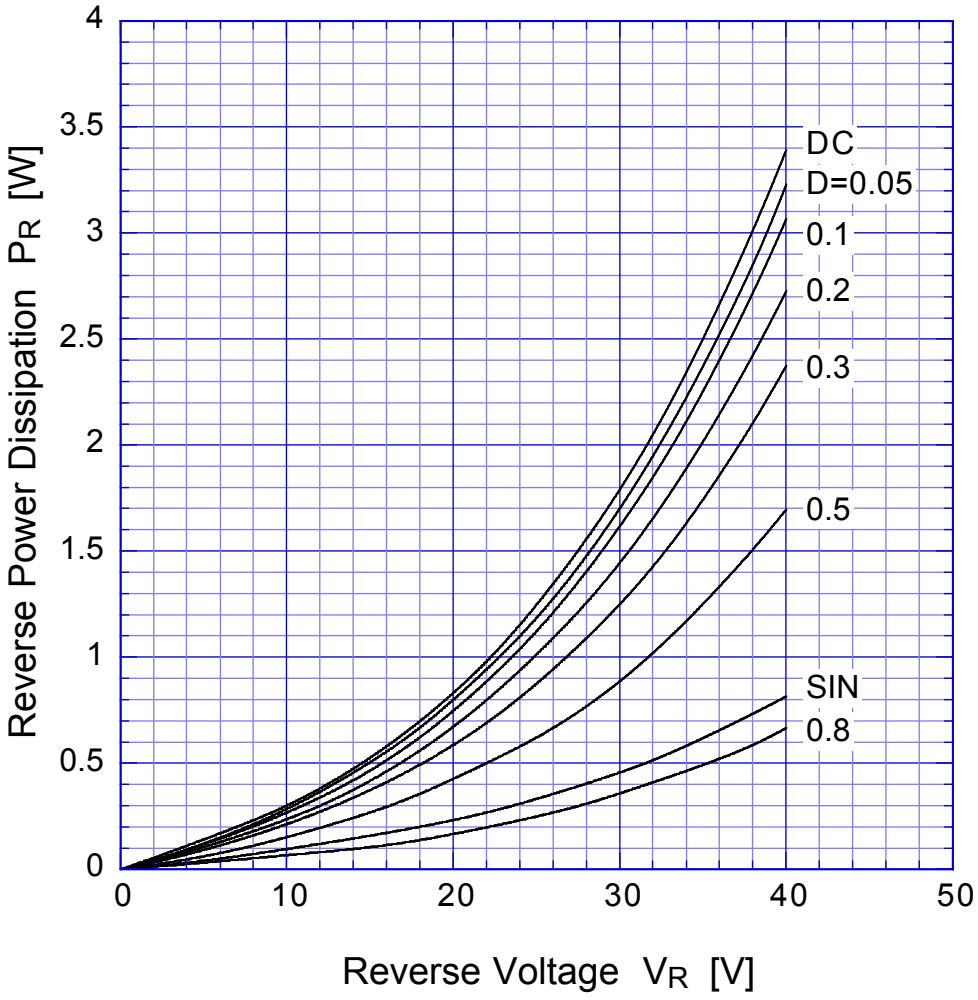
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=2A, Pulse measurement	Max.0.55	V
Reverse Current	IR	VR=VRM, Pulse measurement	Max.2	mA
Junction Capacitance	Cj	f=1MHz, VR=10V	Typ.95	pF
Thermal Resistance	θ jl	junction to lead	Max.17	°C/W
	θ ja	junction to ambient	Max.105	


D2S4M
Forward Voltage
Forward Current IF [A]
10
1
0.1
0
0.2
0.4
0.6
0.8
1
1.2
Forward Voltage VF [V]
Tl=150°C [MAX]
Tl=150°C [TYP]
Tl=25°C [MAX]
Tl=25°C [TYP]
Pulse measurement per diode

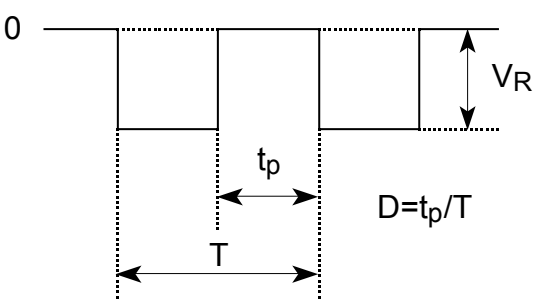

D2S4M
Junction Capacitance
1000
100
10
0.1
1
10
f=1MHz
Tl=25°C
TYP
per diode
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]


D2S4M
Reverse Current
1000
100
10
1
0.1
0.01
Reverse Current IR [mA]
TI=150°C [MAX]
TI=150°C [TYP]
TI=125°C [TYP]
TI=100°C [TYP]
TI=75°C [TYP]
Pulse measurement per diode
0
5
10
15
20
25
30
35
40
Reverse Voltage VR [V]

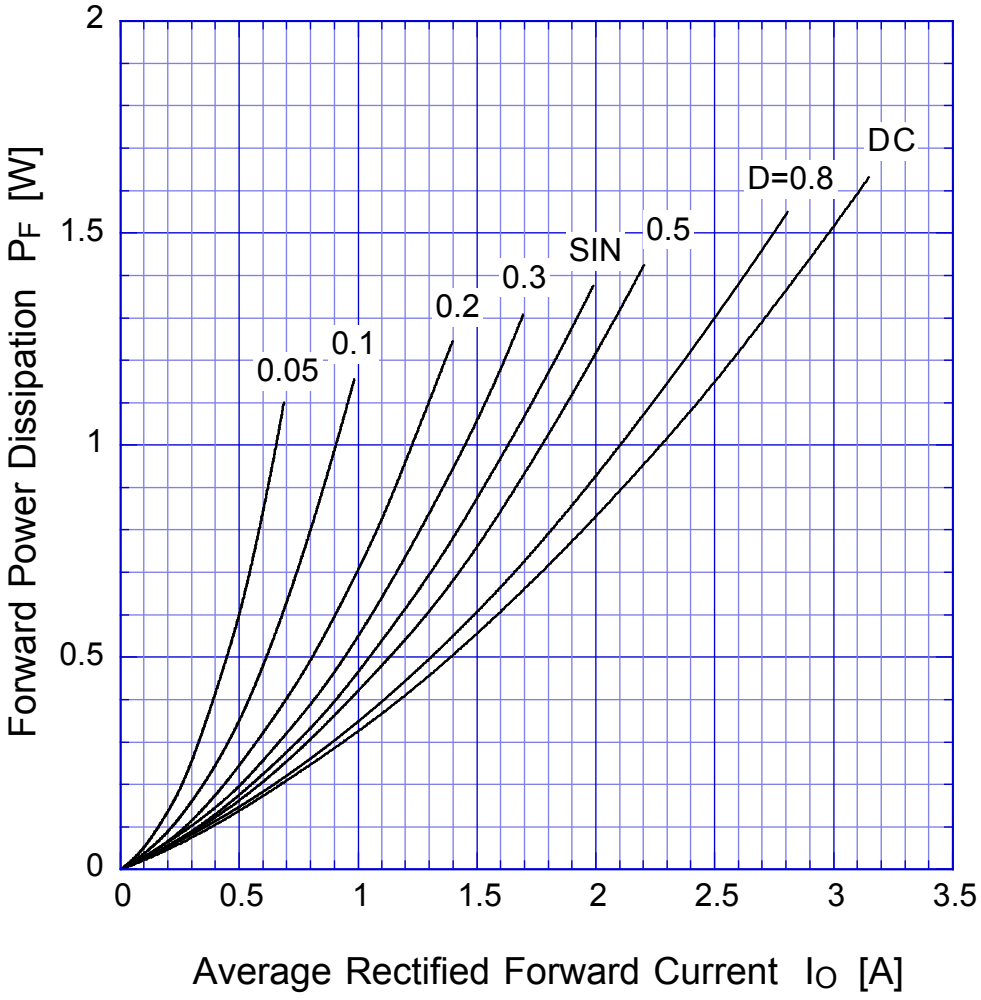
D2S4M Reverse Power Dissipation



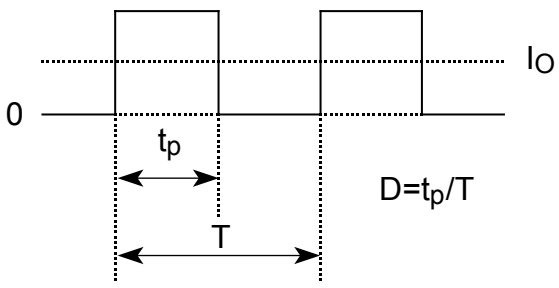
Tj = 150°C



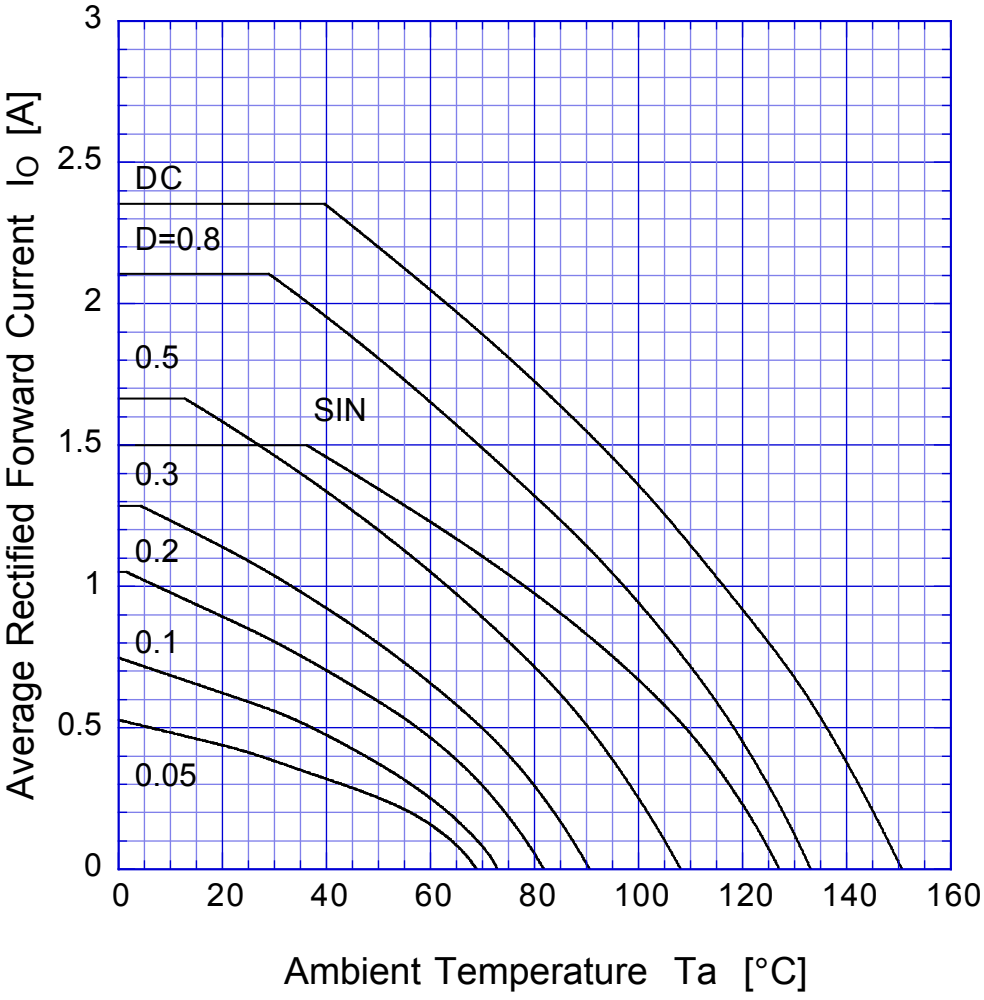
D2S4M Forward Power Dissipation

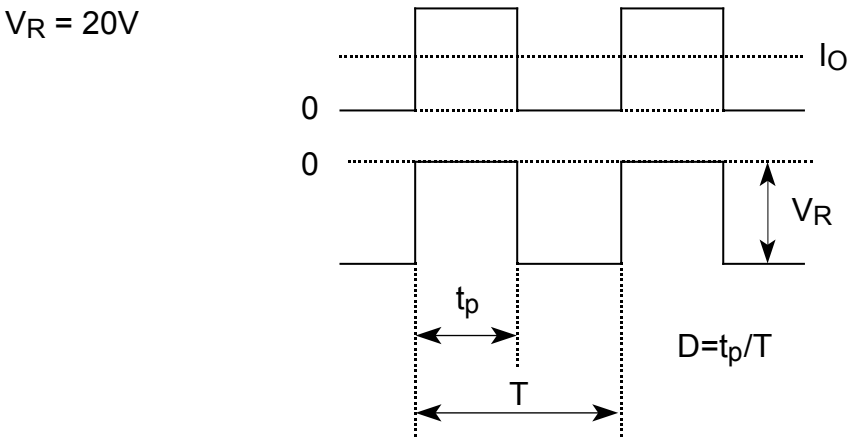


Tj = 150°C

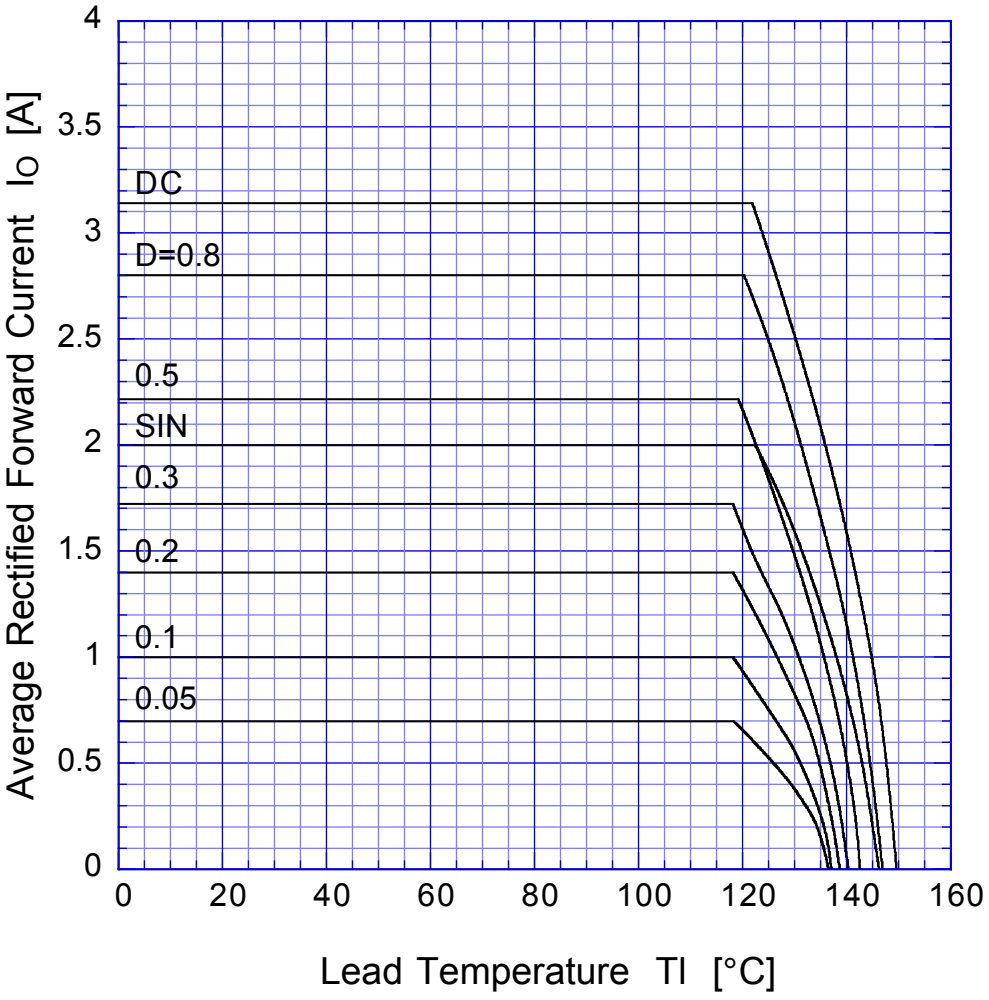


D2S4M Derating Curve

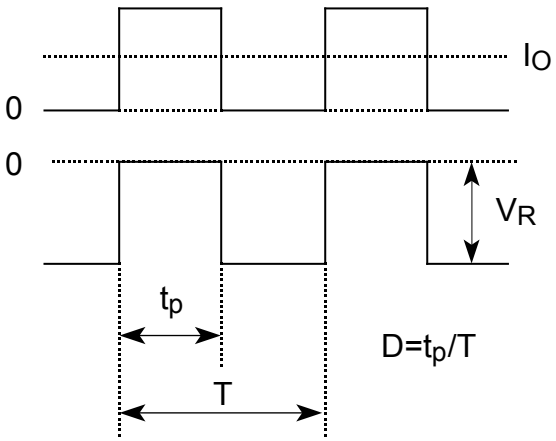




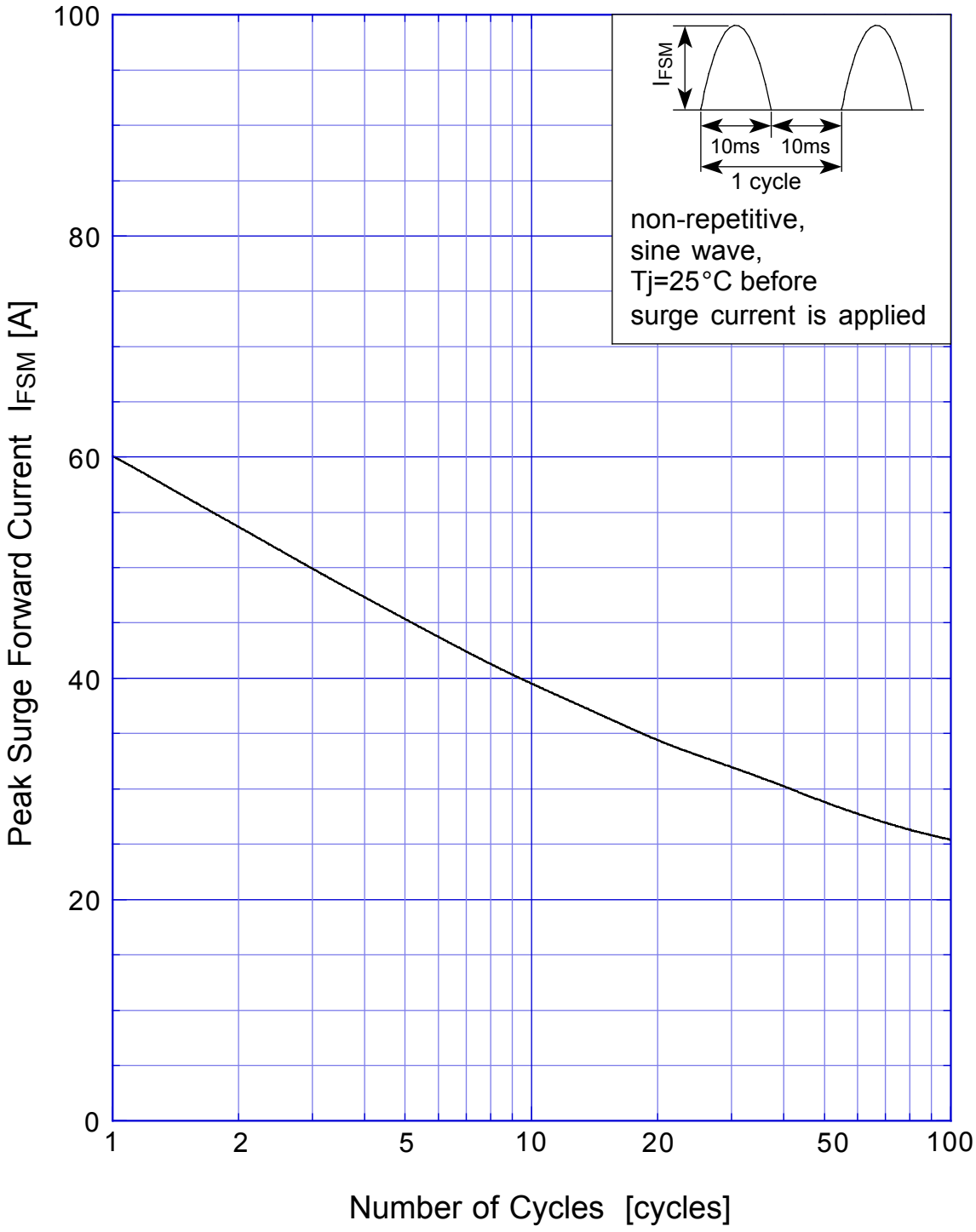
D2S4M Derating Curve



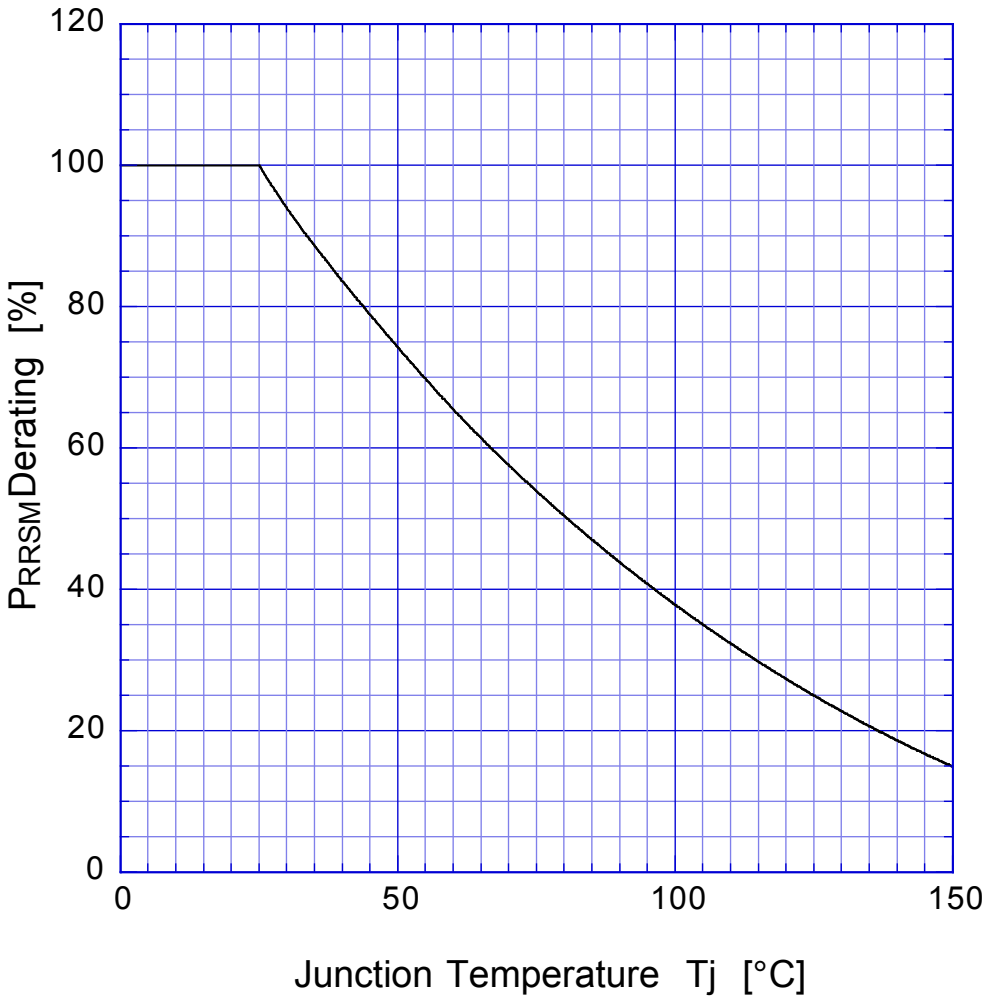
V_R = 20V

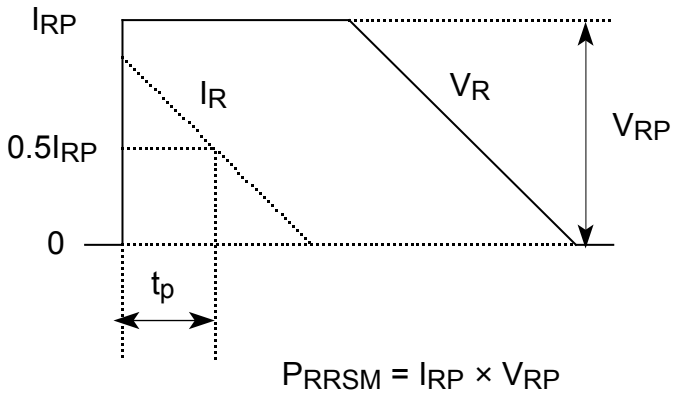


D2S4M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability