SHINDENGEN

Schottky Rectifiers (SBD)

Single

D3FS4A

40V 2.6A

FEATURES

- Small SMT
- Tj150℃
- Low V_F=0.45V
- P_{RRSM} avalanche guaranteed

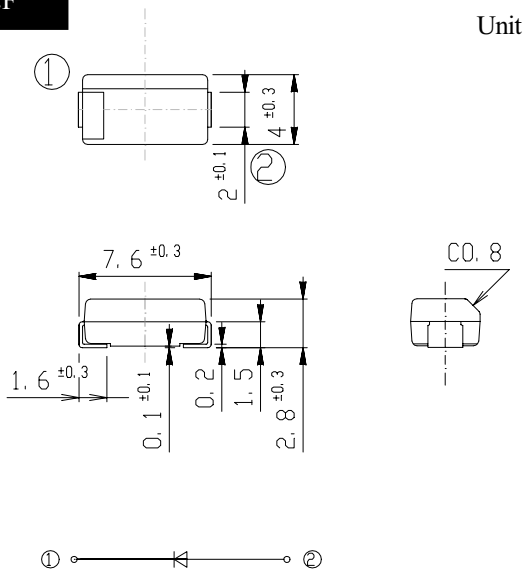
APPLICATION

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

OUTLINE DIMENSIONS

Case : 2F

Unit : mm



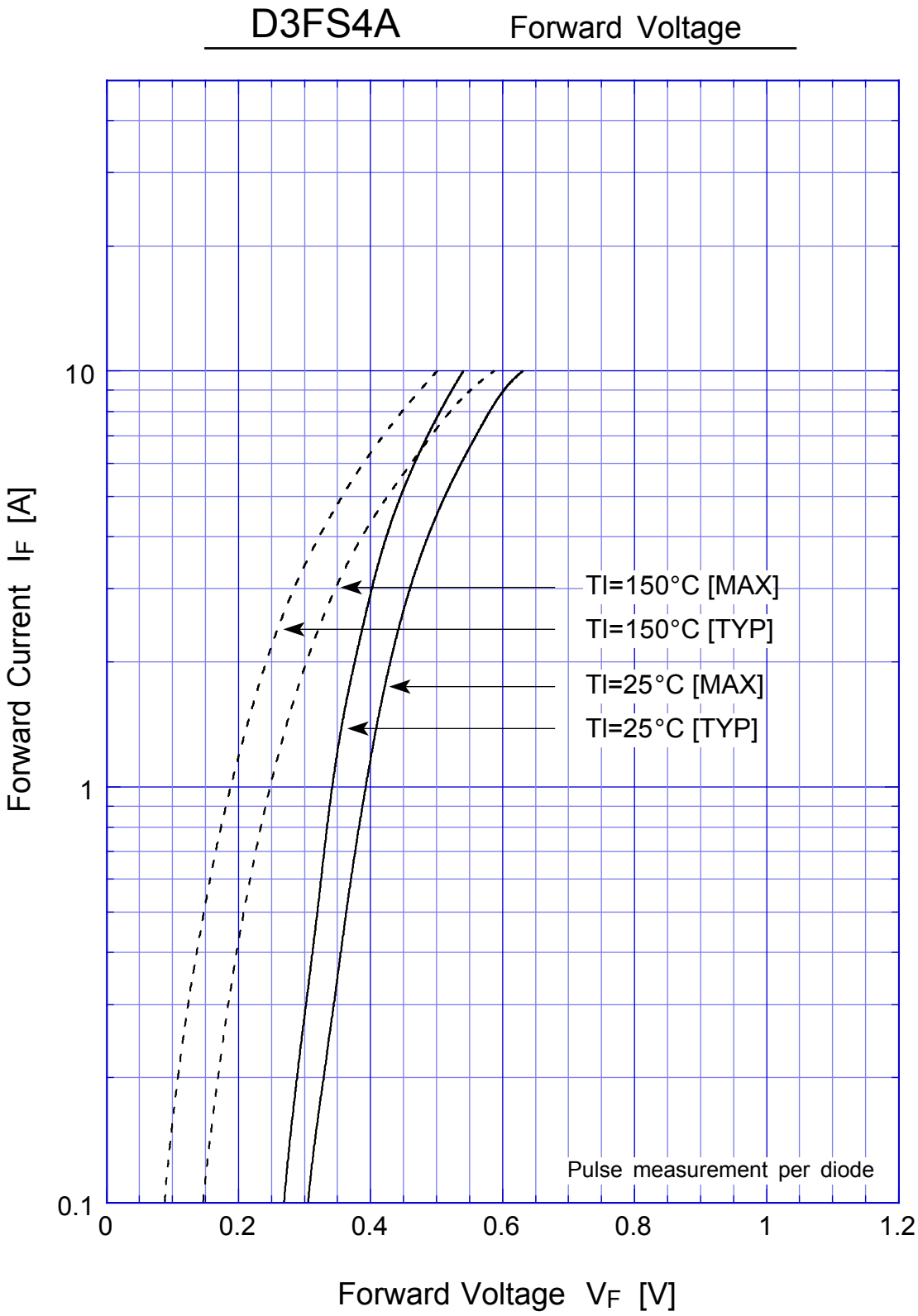
RATINGS

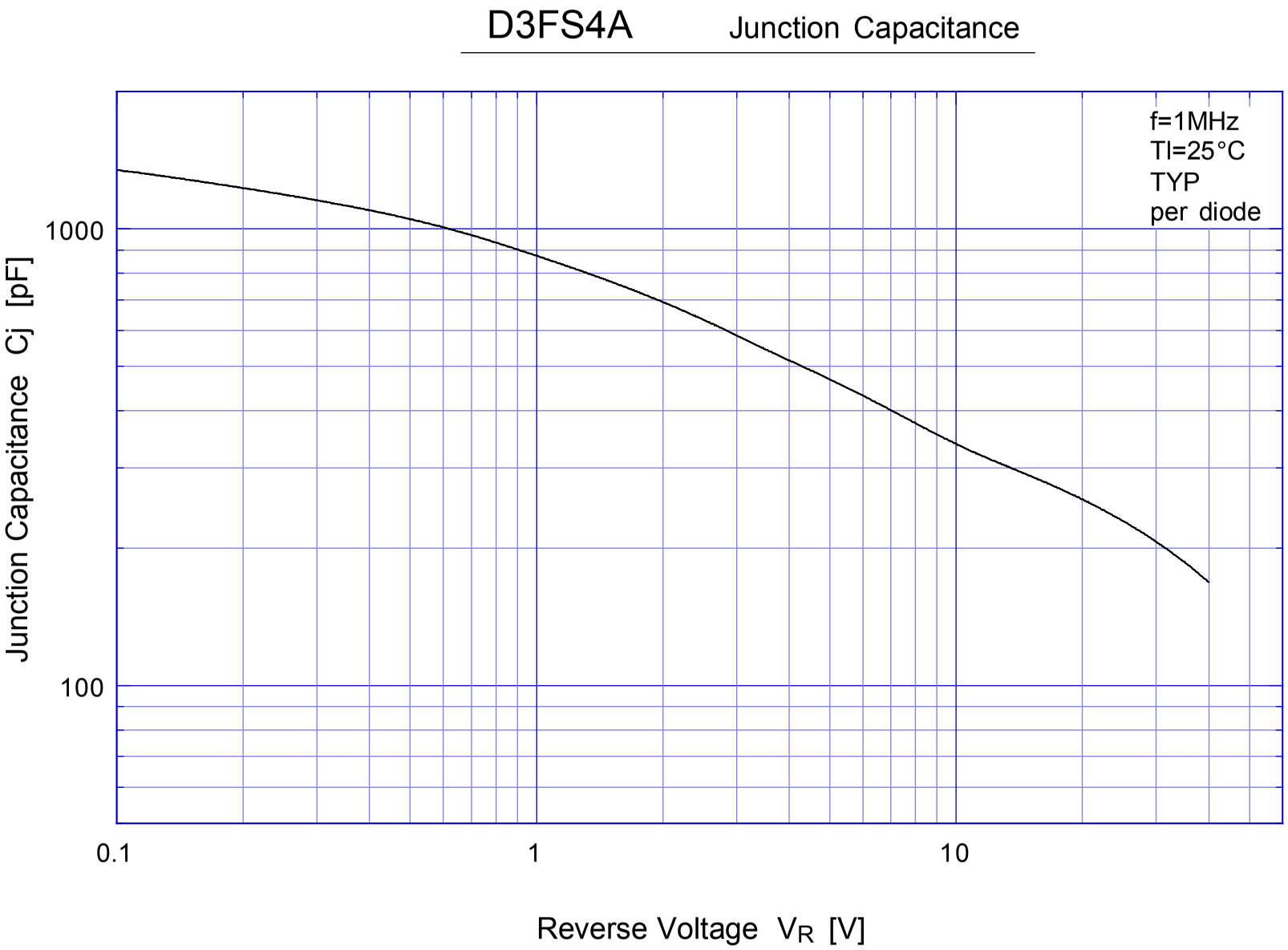
●Absolute Maximum Ratings (If not specified Tl=25℃)

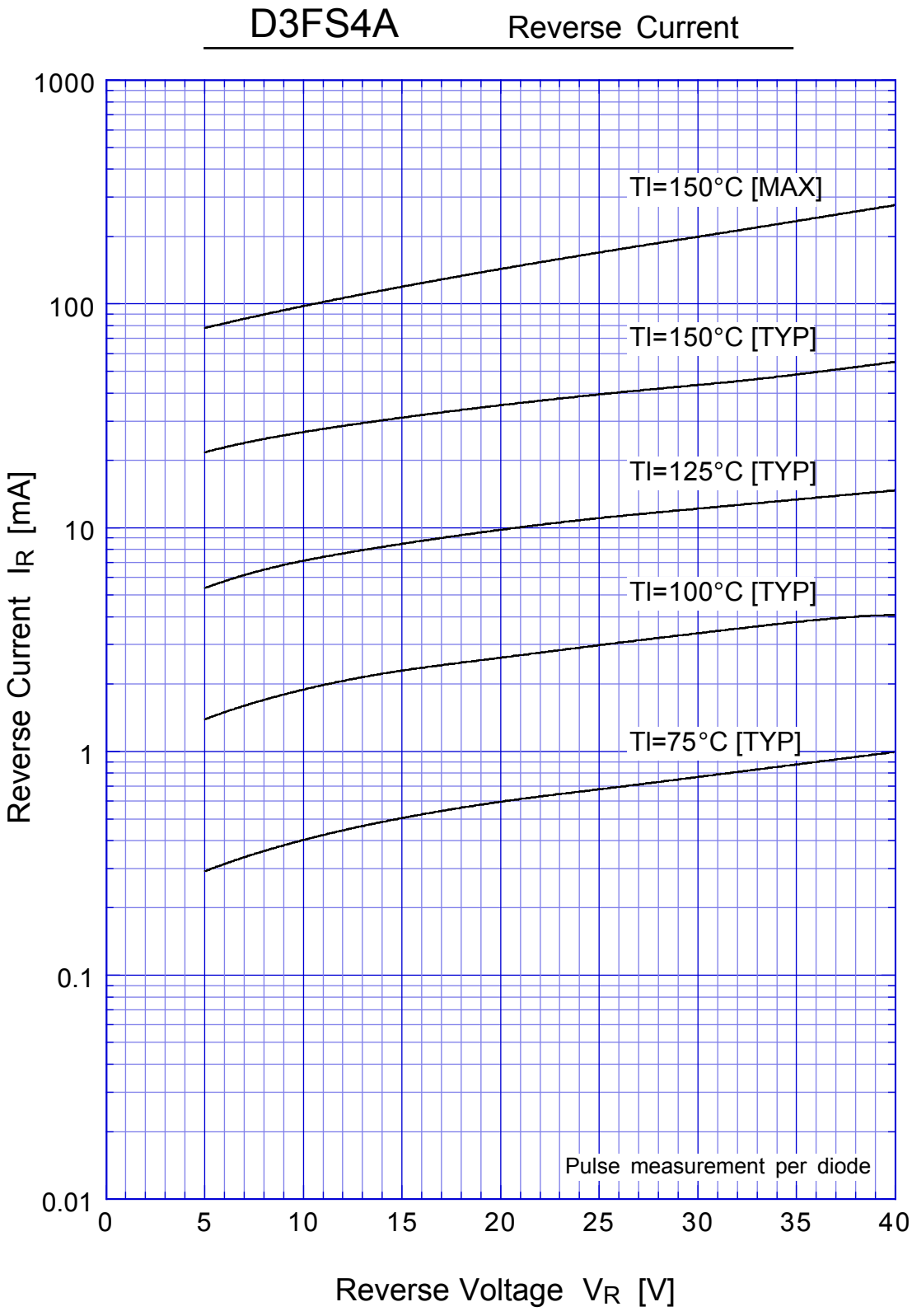
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−55～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load Ta=34℃ On alumina substrate	2.6	A
		50Hz sine wave, R-load Ta=30℃ On glass-epoxy substrate	1.9	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125℃	150	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Tj=25℃	330	W

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

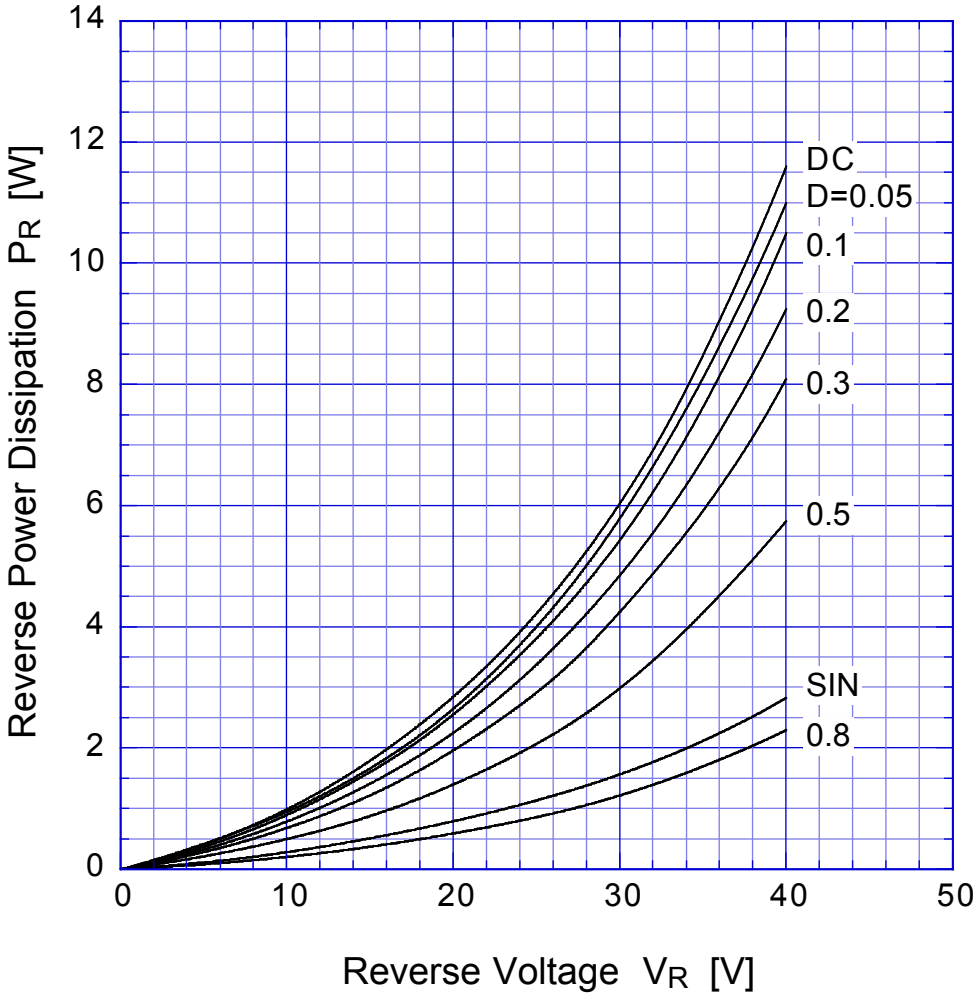
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=2.6A, Pulse measurement	Max.0.45	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement	Max.5	mA
Junction Capacitance	Cj	f=1MHz, V_R=10V	Typ.340	pF
Thermal Resistance	θ jl	junction to lead	Max.23	℃/W
	θ ja	junction to ambient On alumina substrate	Max.80	
		junction to ambient On glass-epoxy substrate	Max.115	


D3FS4A
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]
TI=150°C [MAX]
TI=150°C [TYP]
TI=25°C [MAX]
TI=25°C [TYP]
Pulse measurement per diode

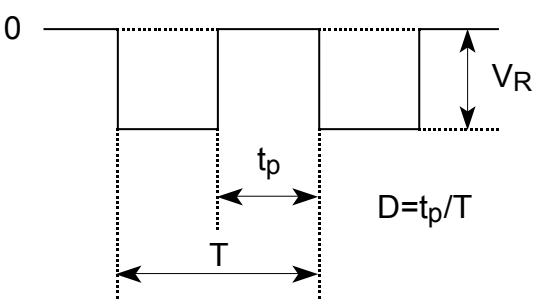

D3FS4A
Junction Capacitance
f=1MHz
Tl=25°C
TYP
per diode
1000
100
Junction Capacitance Cj [pF]
0.1
1
10
Reverse Voltage VR [V]


D3FS4A
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]

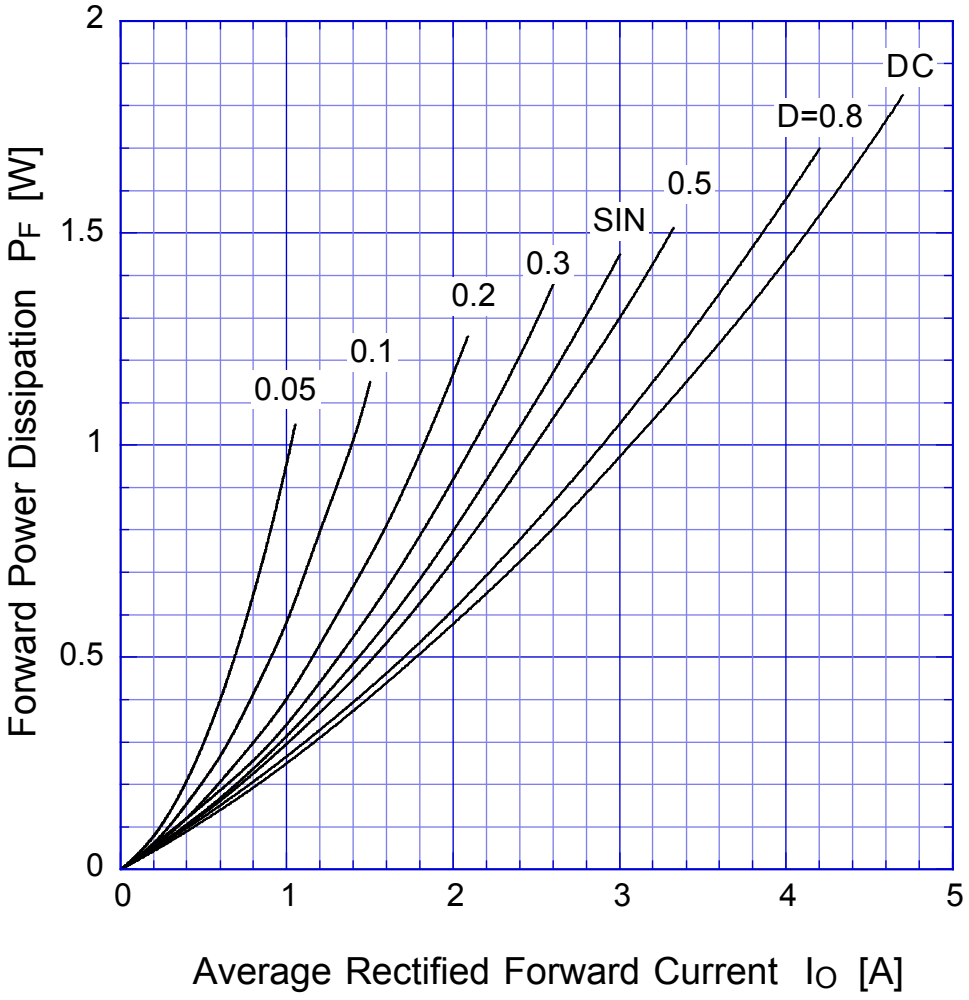
D3FS4A Reverse Power Dissipation



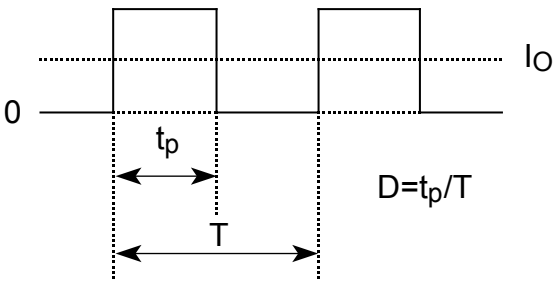
Tj = 150°C



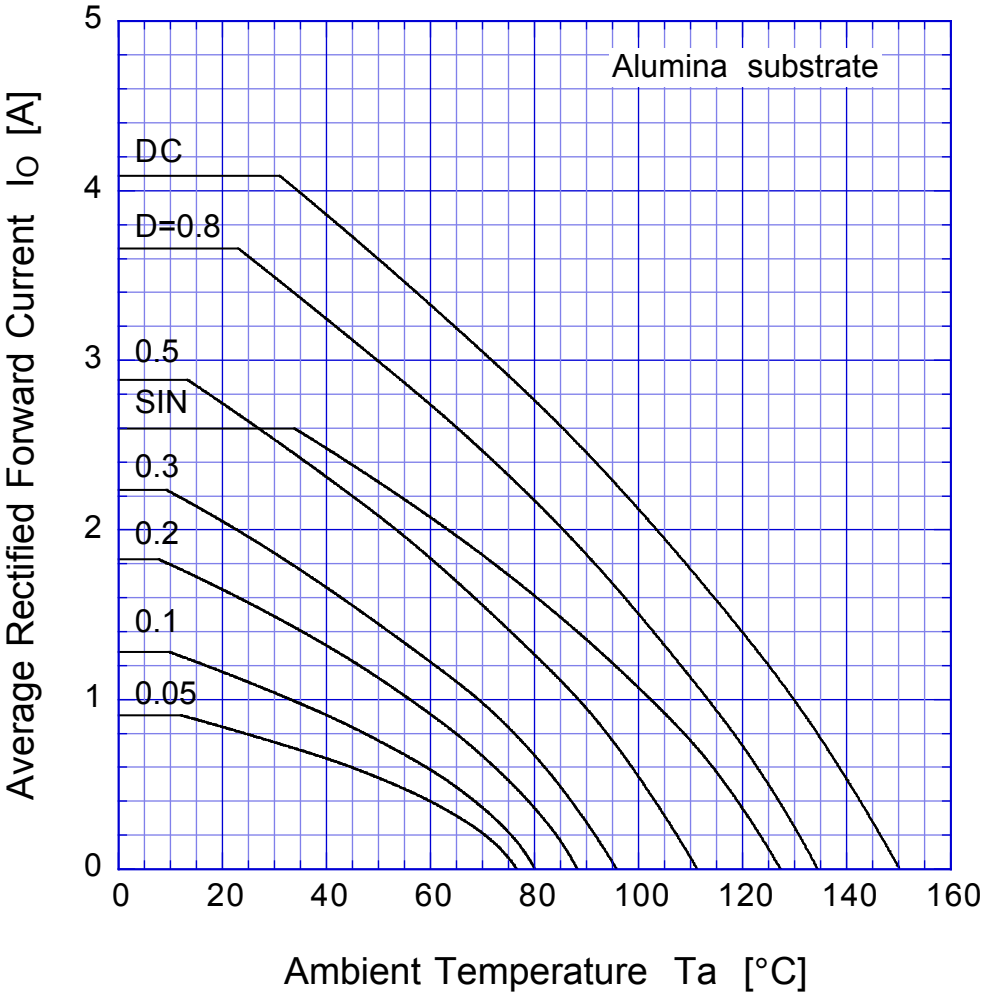
D3FS4A Forward Power Dissipation



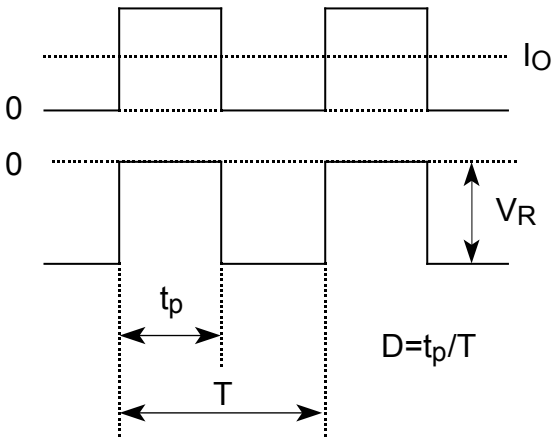
Tj = 150°C



D3FS4A Derating Curve



V_R = 10V



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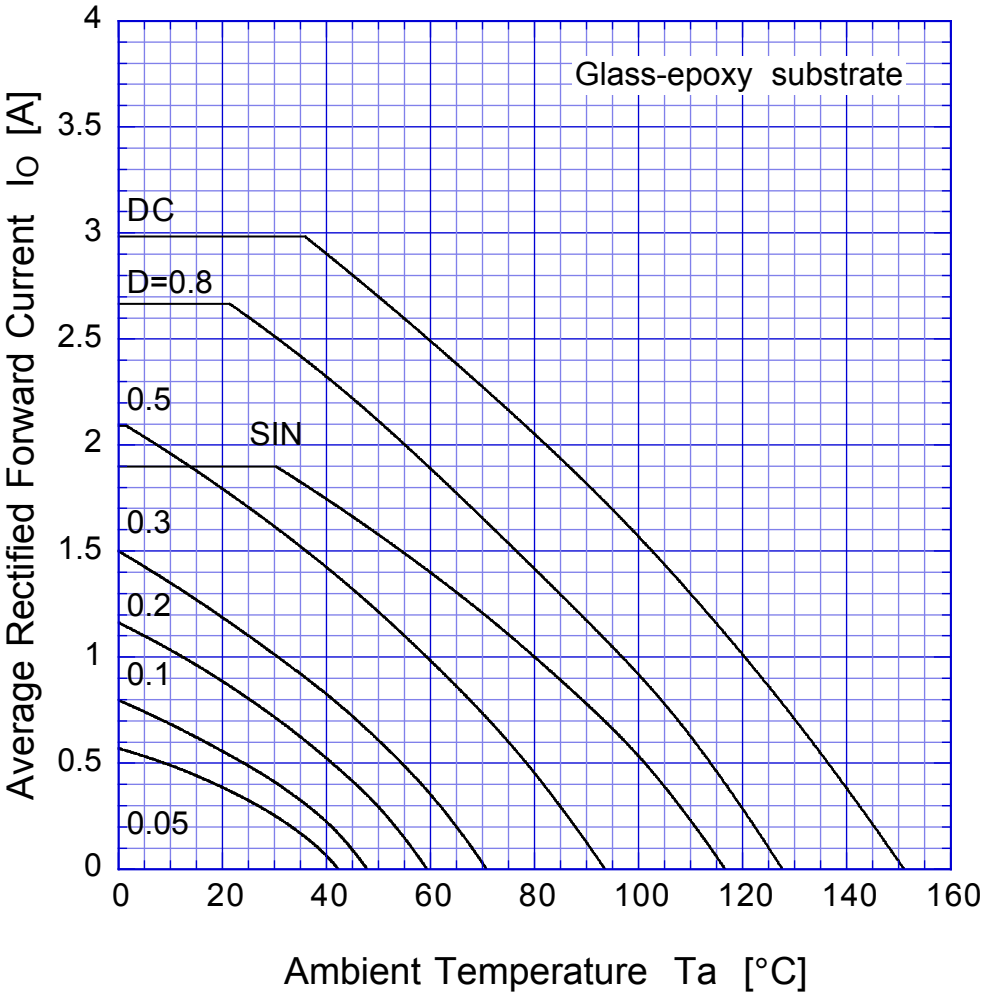
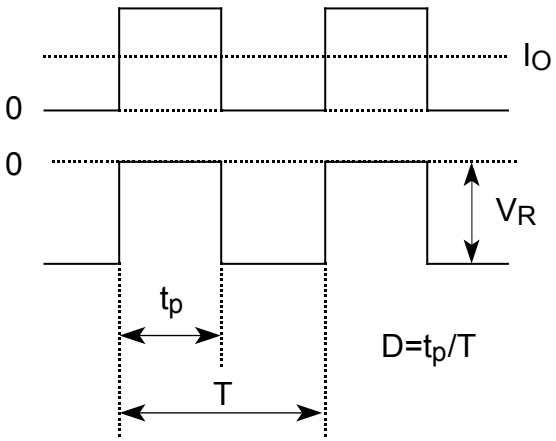
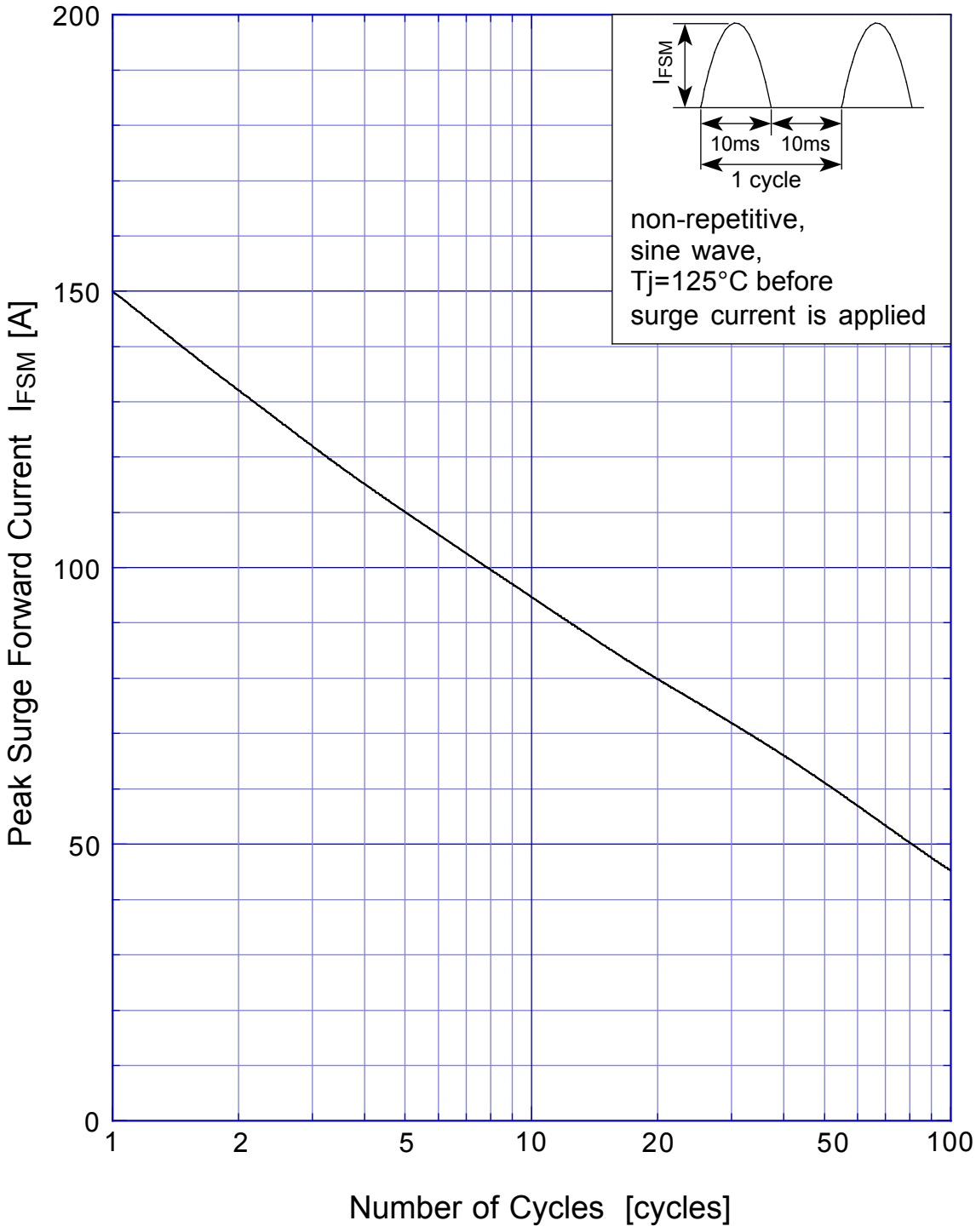


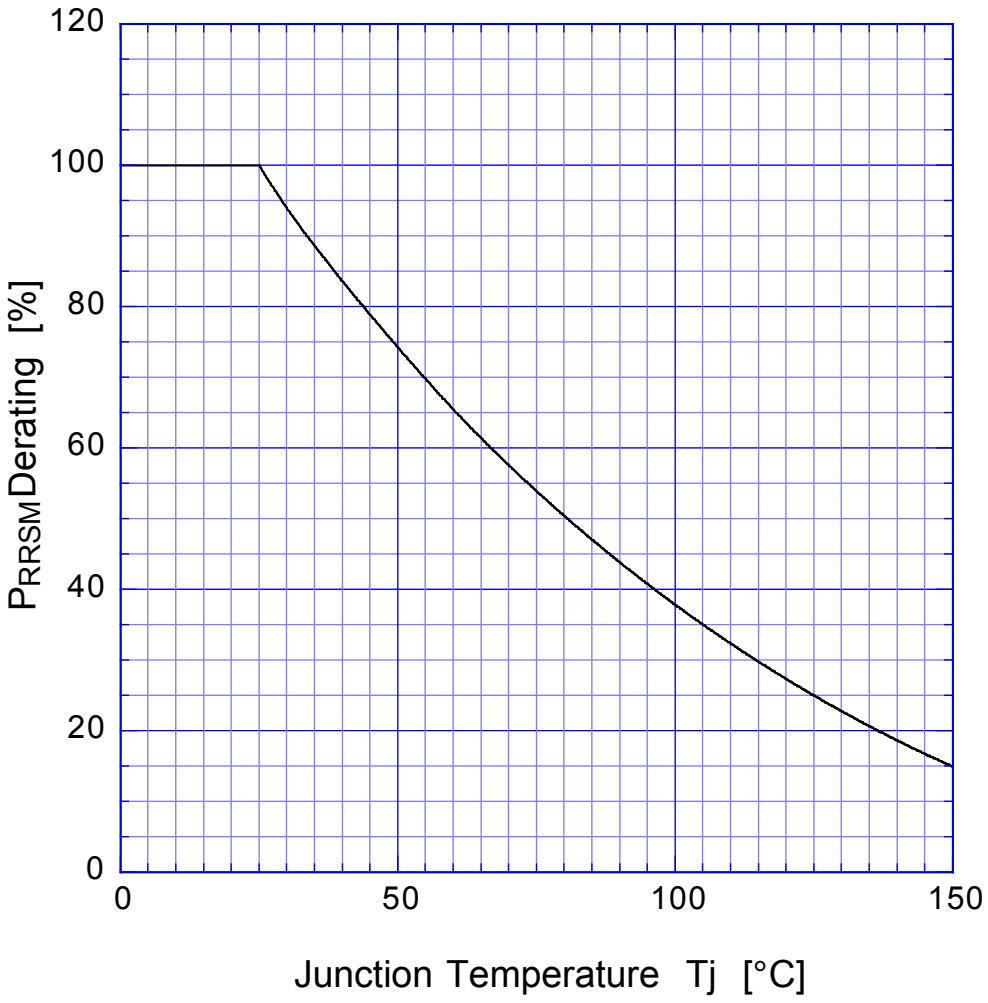
V_R = 10V

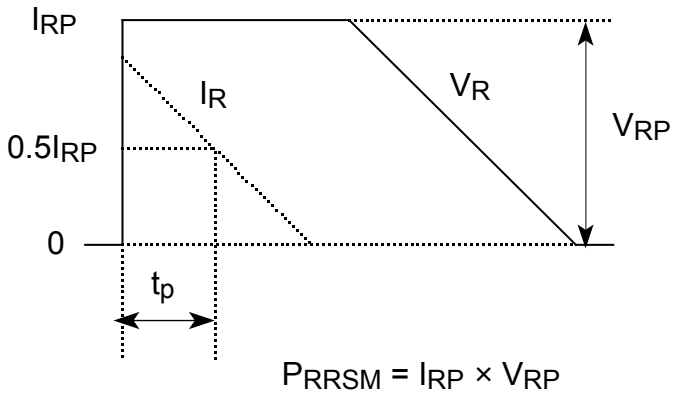


D3FS4A Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability