SHINDENGEN

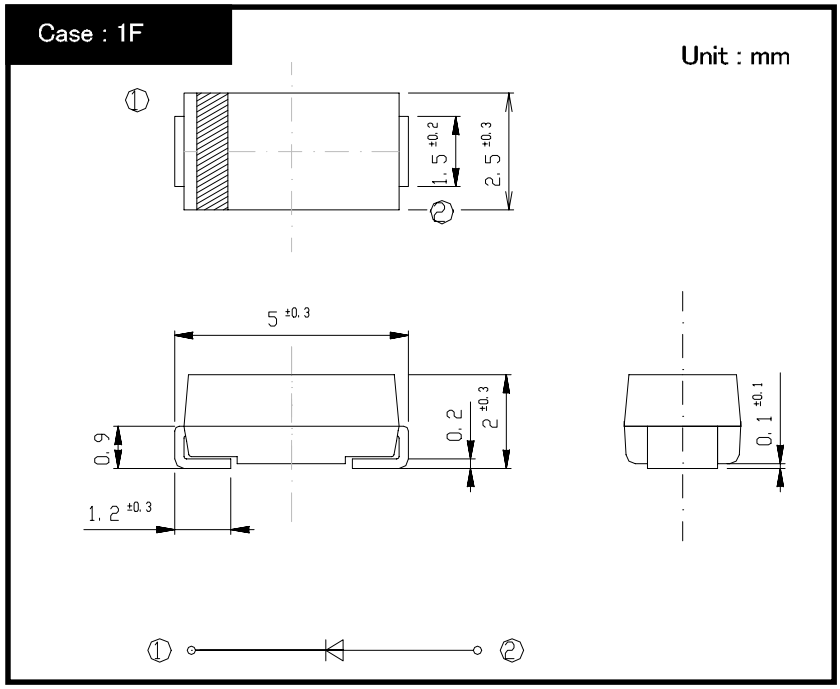
Schottky Rectifiers (SBD)

Single

D1FM3

30V 5A

OUTLINE DIMENSIONS



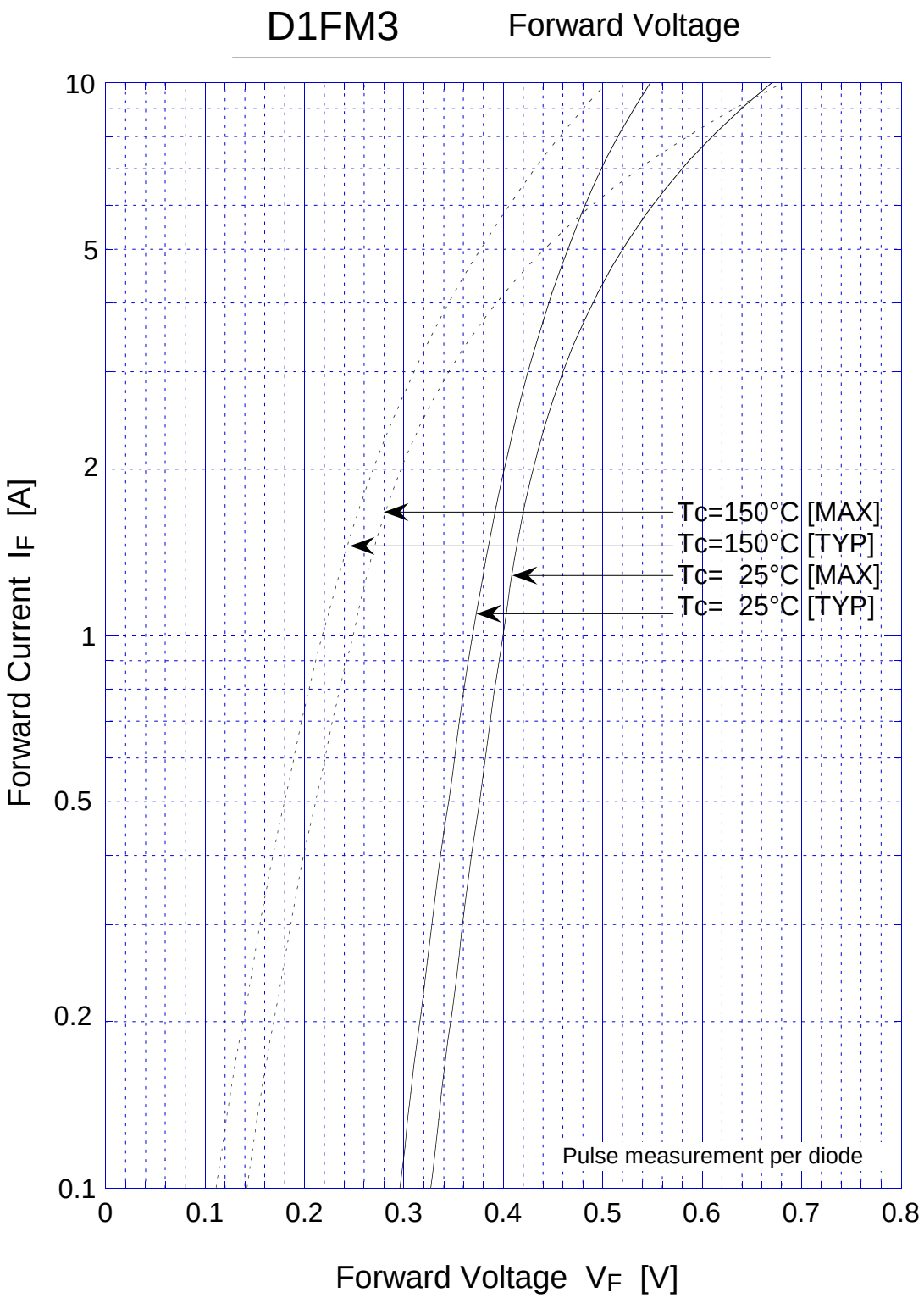
RATINGS

●Absolute Maximum Ratings (Tc=25℃)

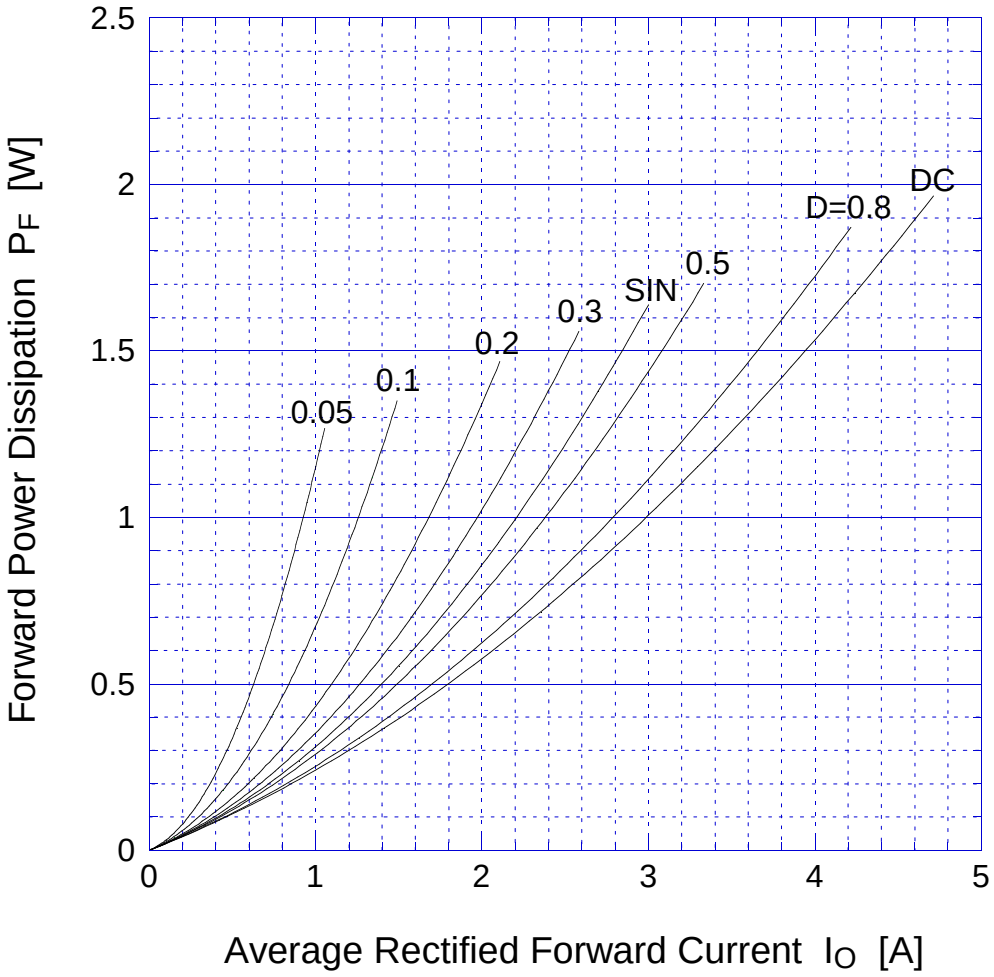
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	VRM		30	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load Ta=25℃ On glass-epoxy substrate	3.0	A
		50Hz sine wave, R-load Tc=83℃	5.0	
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tc=25℃	90	A

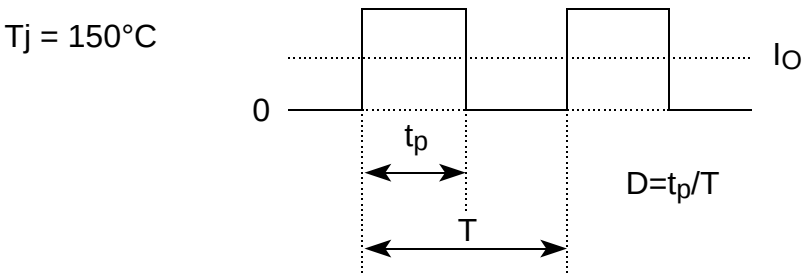
●Electrical Characteristics Tc=25℃

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF1	IF=1.0A, Pulse measurement	Max.0.40	V
	VF2	IF=3.0A, Pulse measurement	Max.0.46	
Reverse Current	IR	VR=VRM, Pulse measurement	Max.0.1	mA
Junction Capacitance	Cj	f=1MHz, VR=10V	Typ.130	pF
Thermal Resistance	θ jc	junction to case	Max.16	℃/W
	θ jl	junction to lead	Max.18	
	θ ja	junction to ambient On glass-epoxy substrate	Max.65	

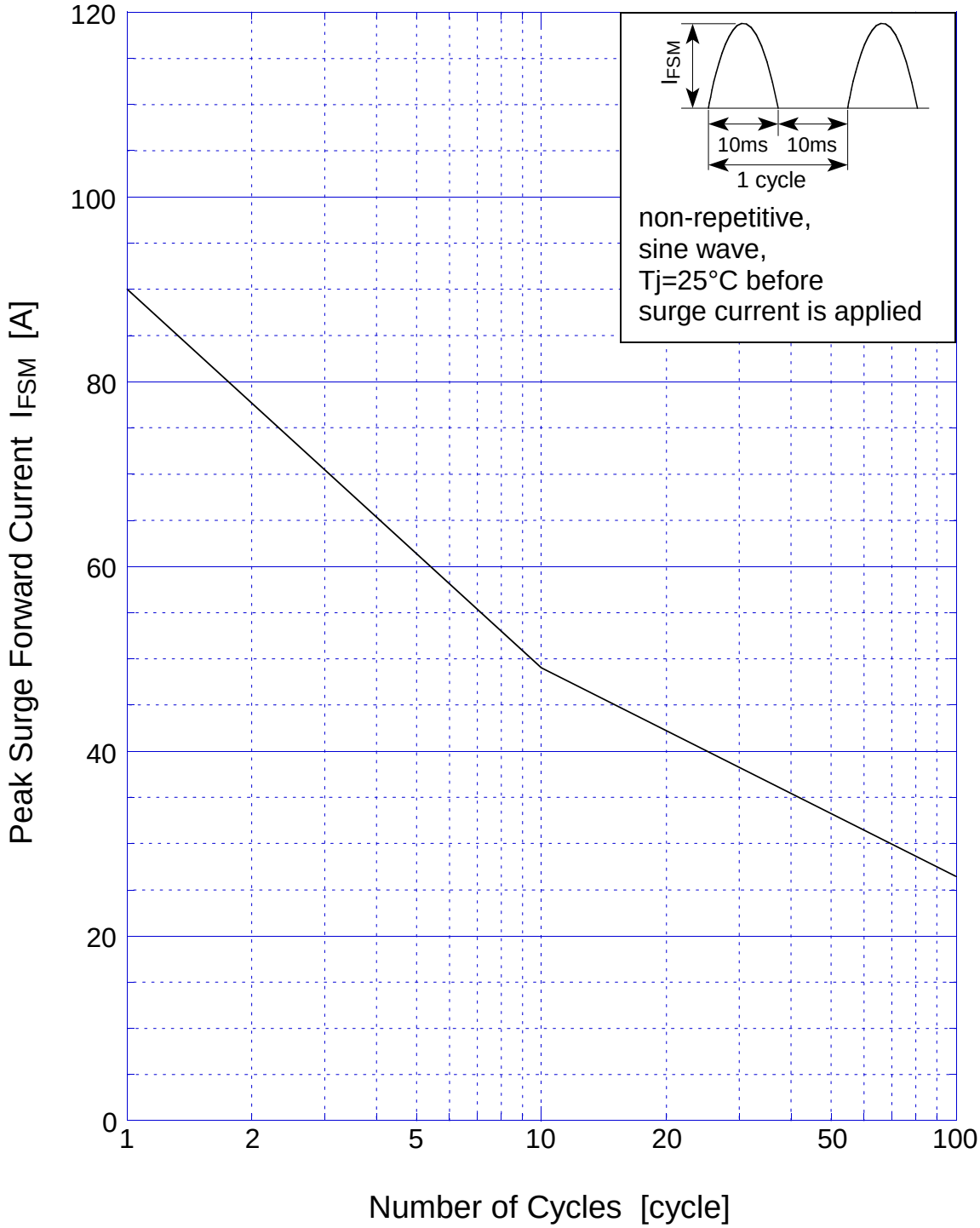

D1FM3
Forward Voltage
10
5
2
1
0.5
0.2
0.1
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
Forward Current IF [A]
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc= 25°C [MAX]
Tc= 25°C [TYP]
Pulse measurement per diode

D1FM3 Forward Power Dissipation

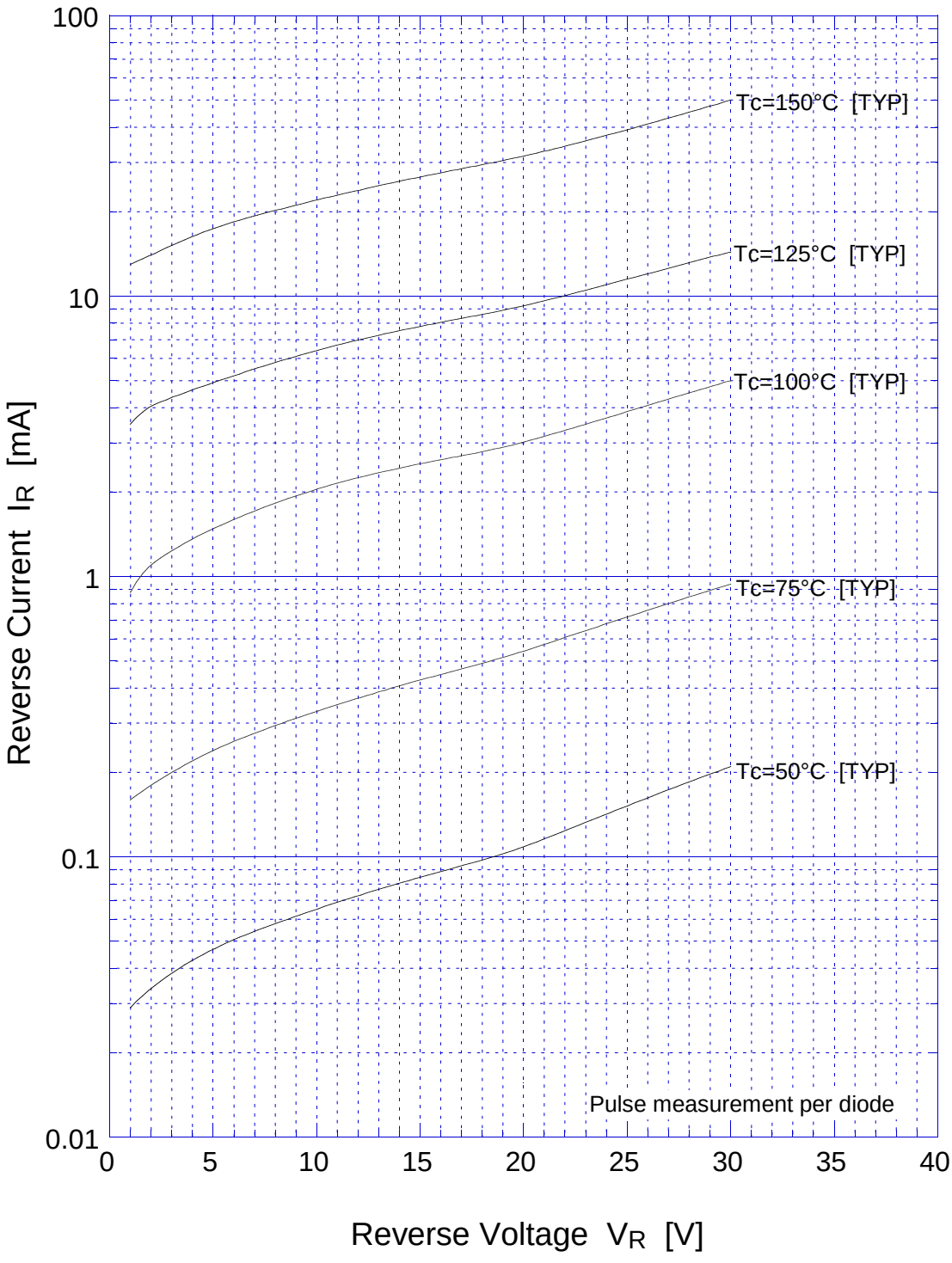




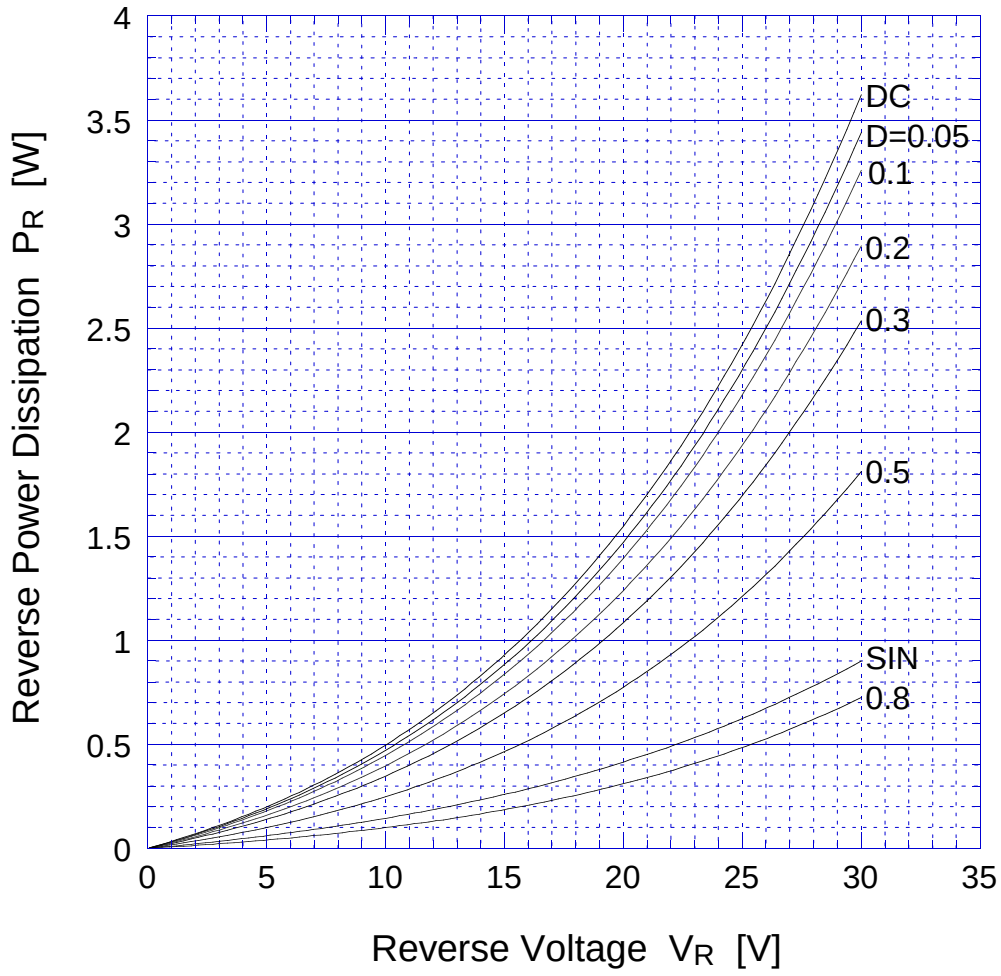
D1FM3 Peak Surge Forward Capability



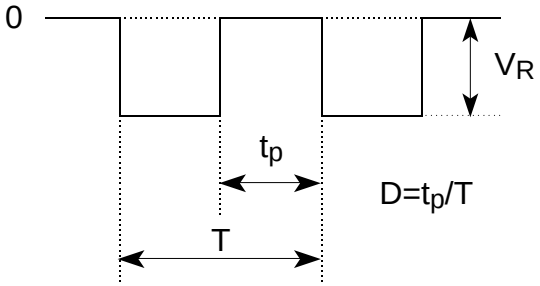
D1FM3 Reverse Current



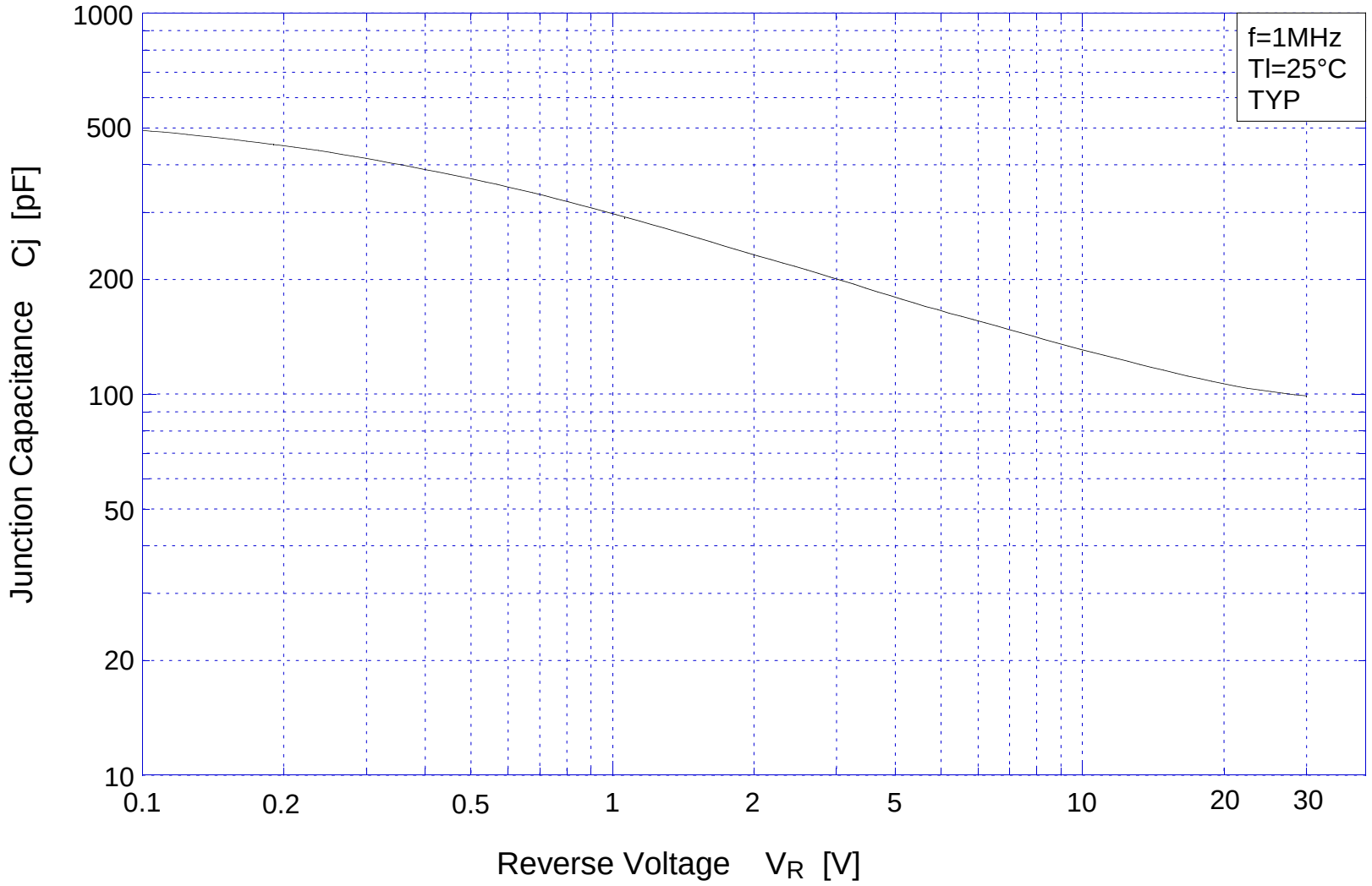
D1FM3 Reverse Power Dissipation



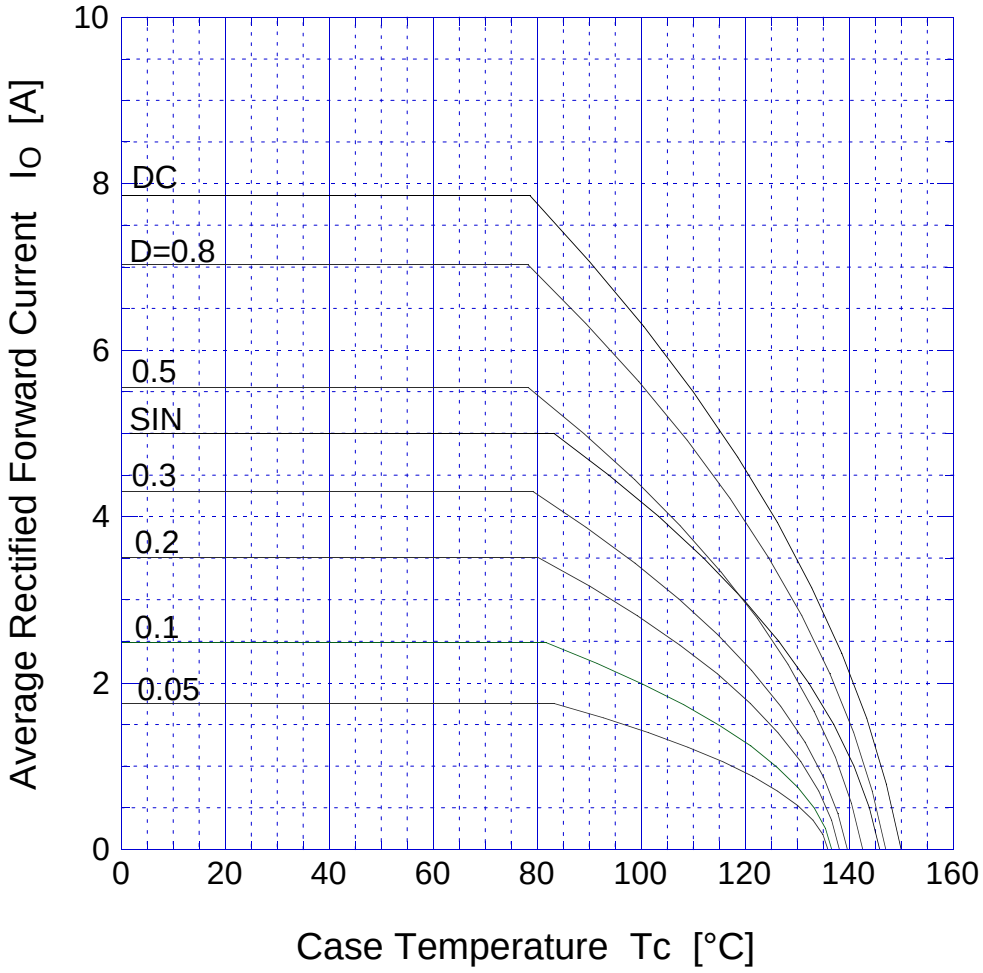
Tj = 150°C

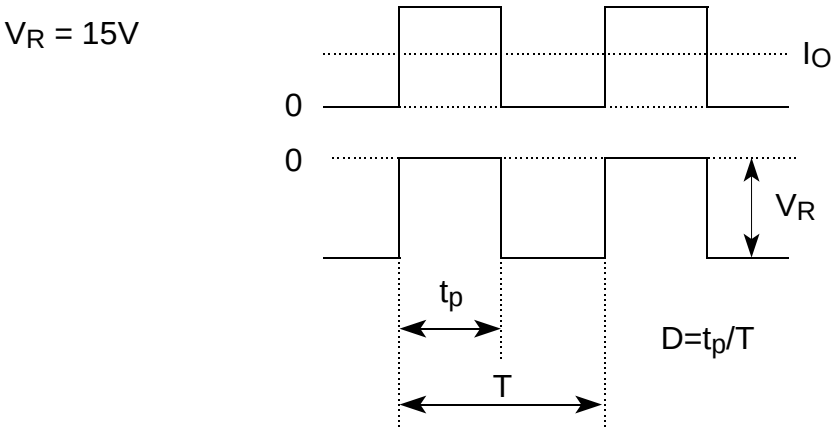


D1FM3 Junction Capacitance

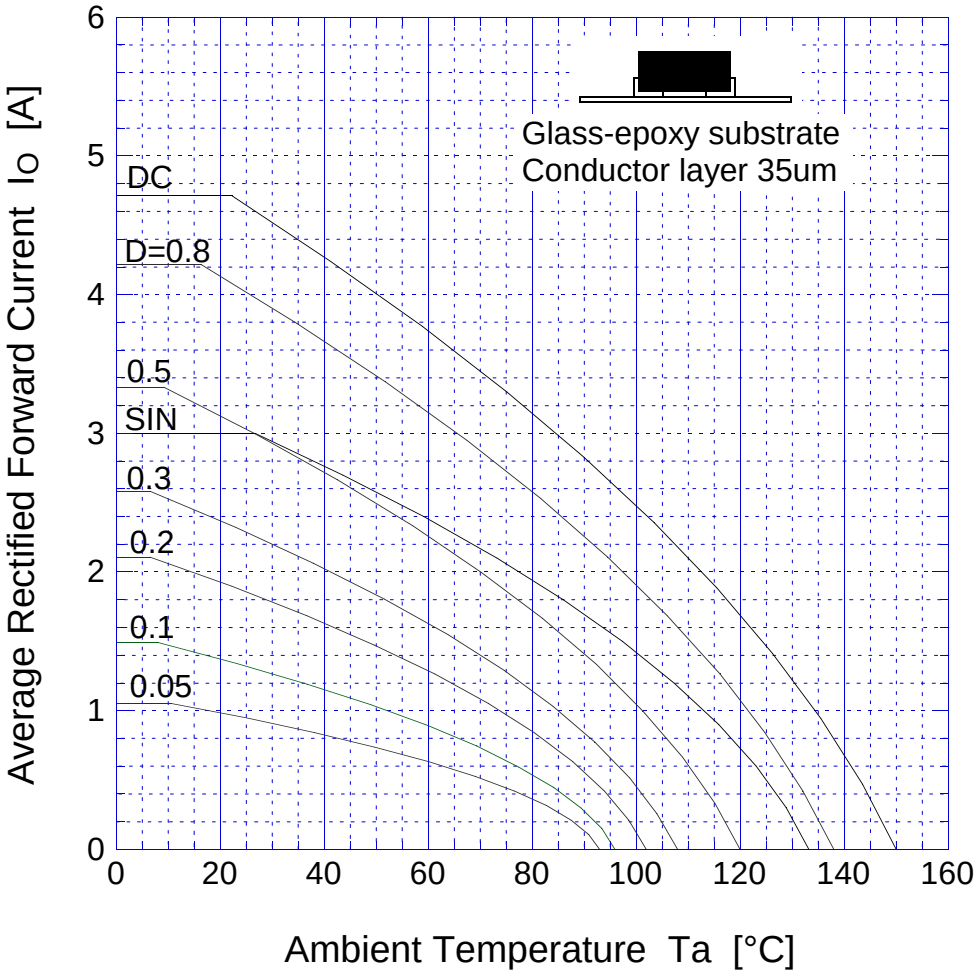


D1FM3 Derating Curve

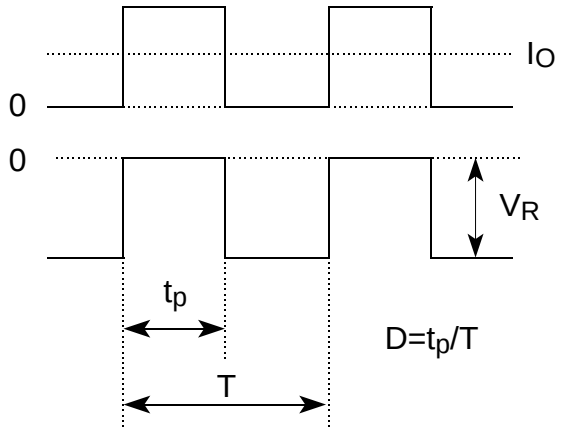




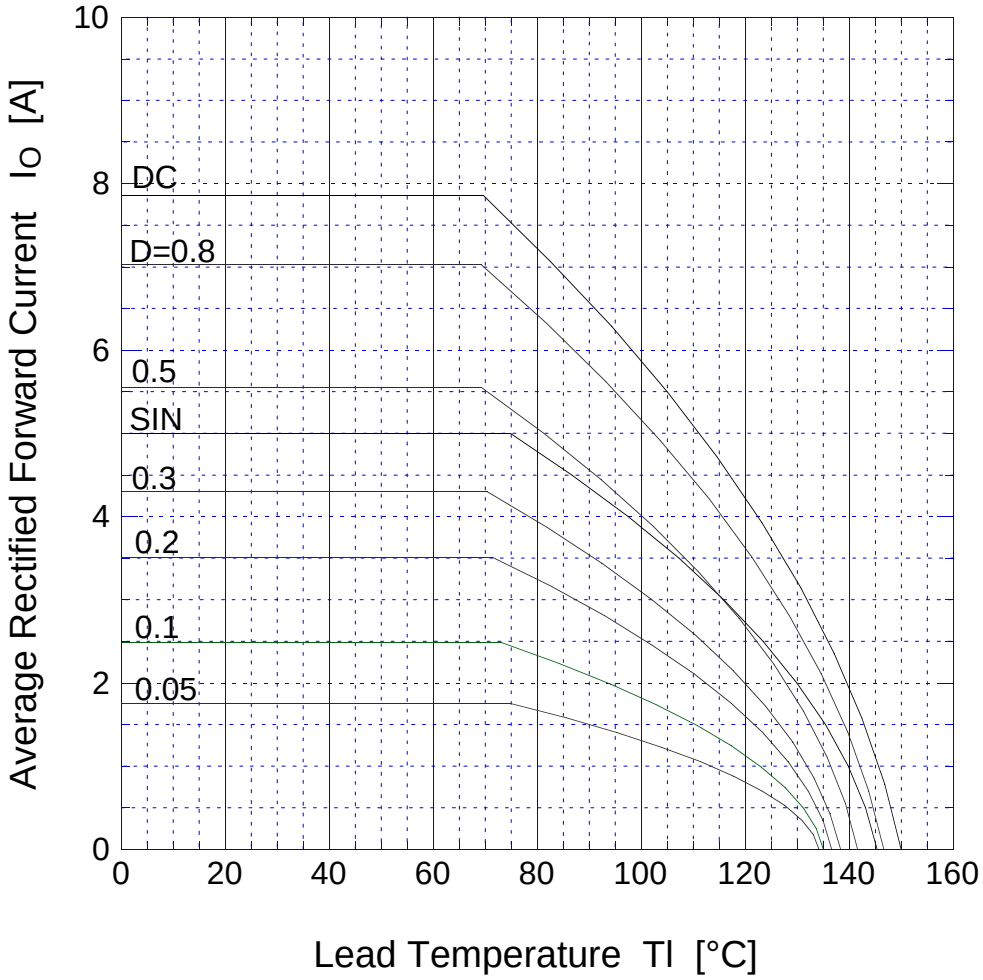
D1FM3 Derating Curve



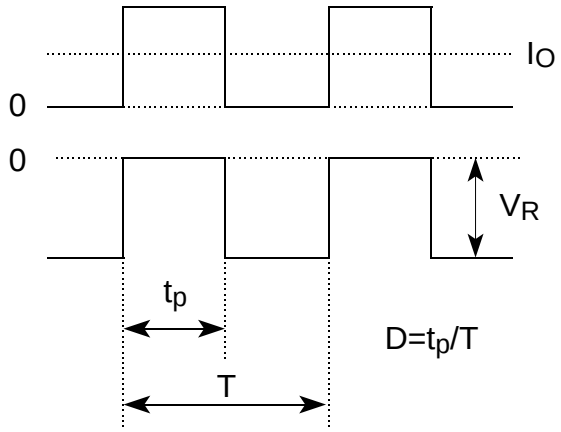
V_R = 15V



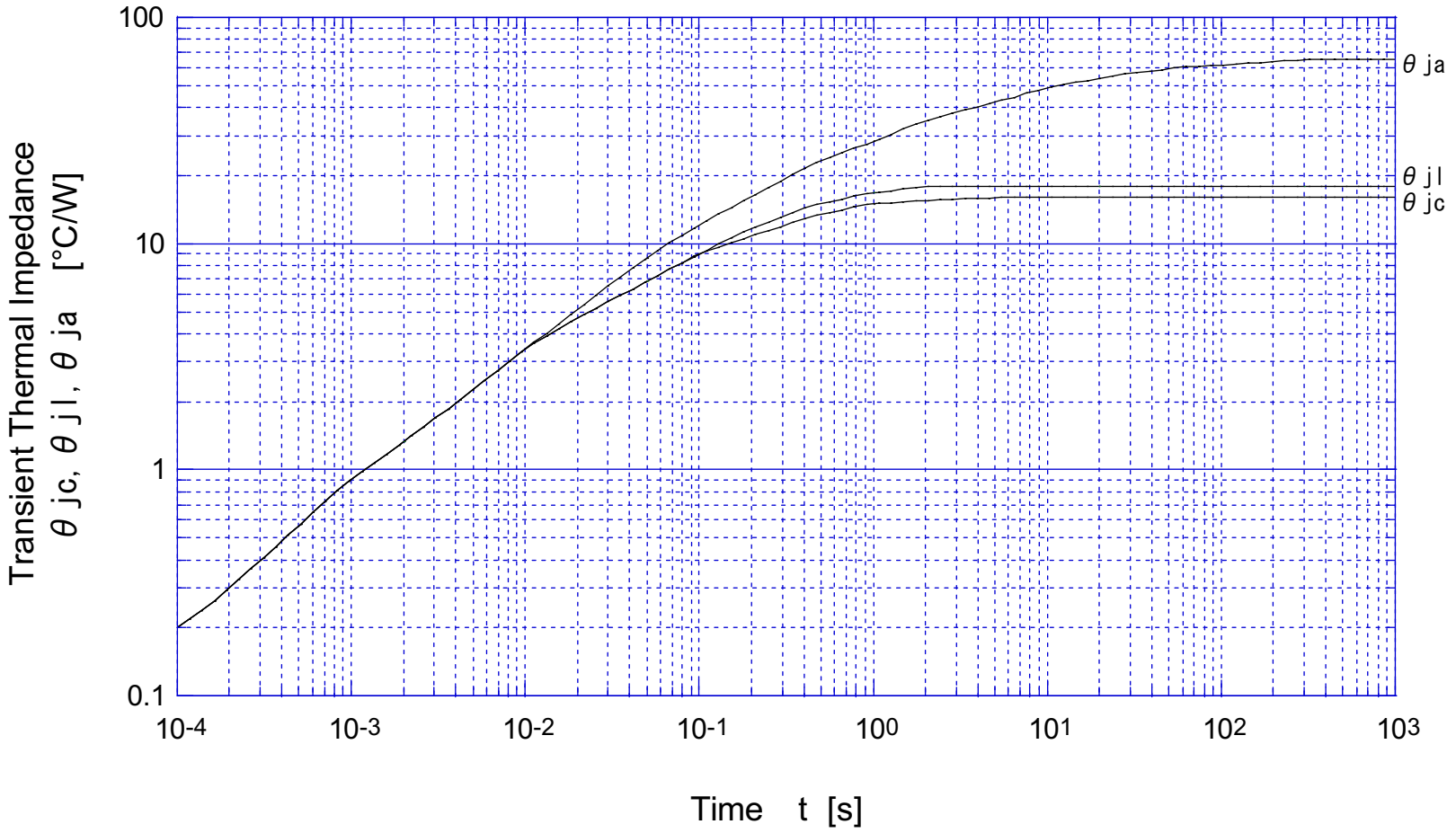
D1FM3 Derating Curve



V_R = 15V



D1FM3 Transient Thermal Impedance



D1FM3 θja - Conductor pattern area