SHINDENGEN

Schottky Rectifiers (SBD)

SBD Bridges

D4SBS4

40V 4A

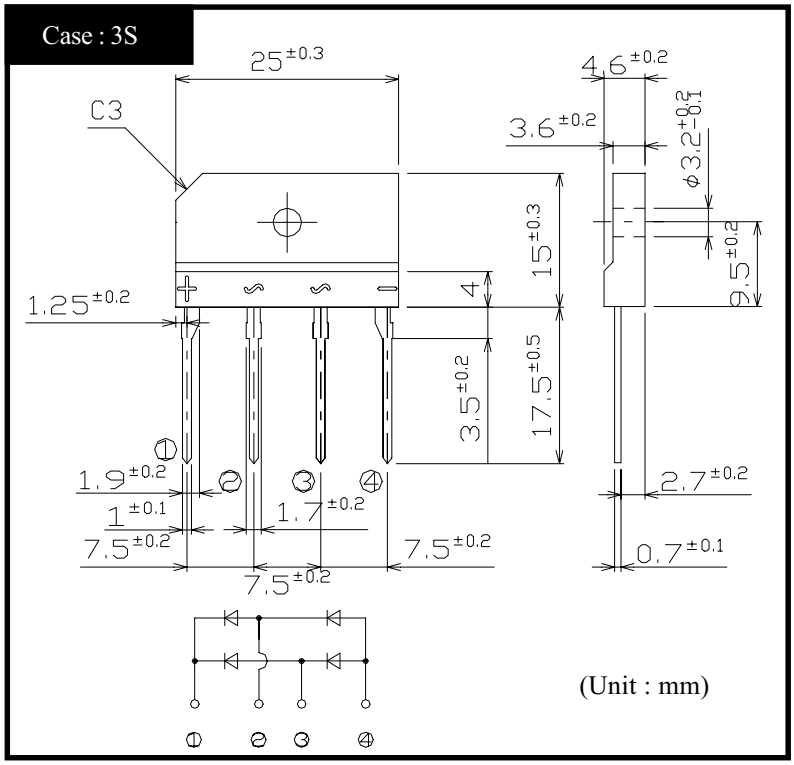
FEATURES

- Thin Single In-Line Package
- SBD Bridge
- Low VF

APPLICATION

- Switching power supply
- Home Appliances, Office Equipment
- Telecommunication, Factory Automation

OUTLINE DIMENSIONS



RATINGS

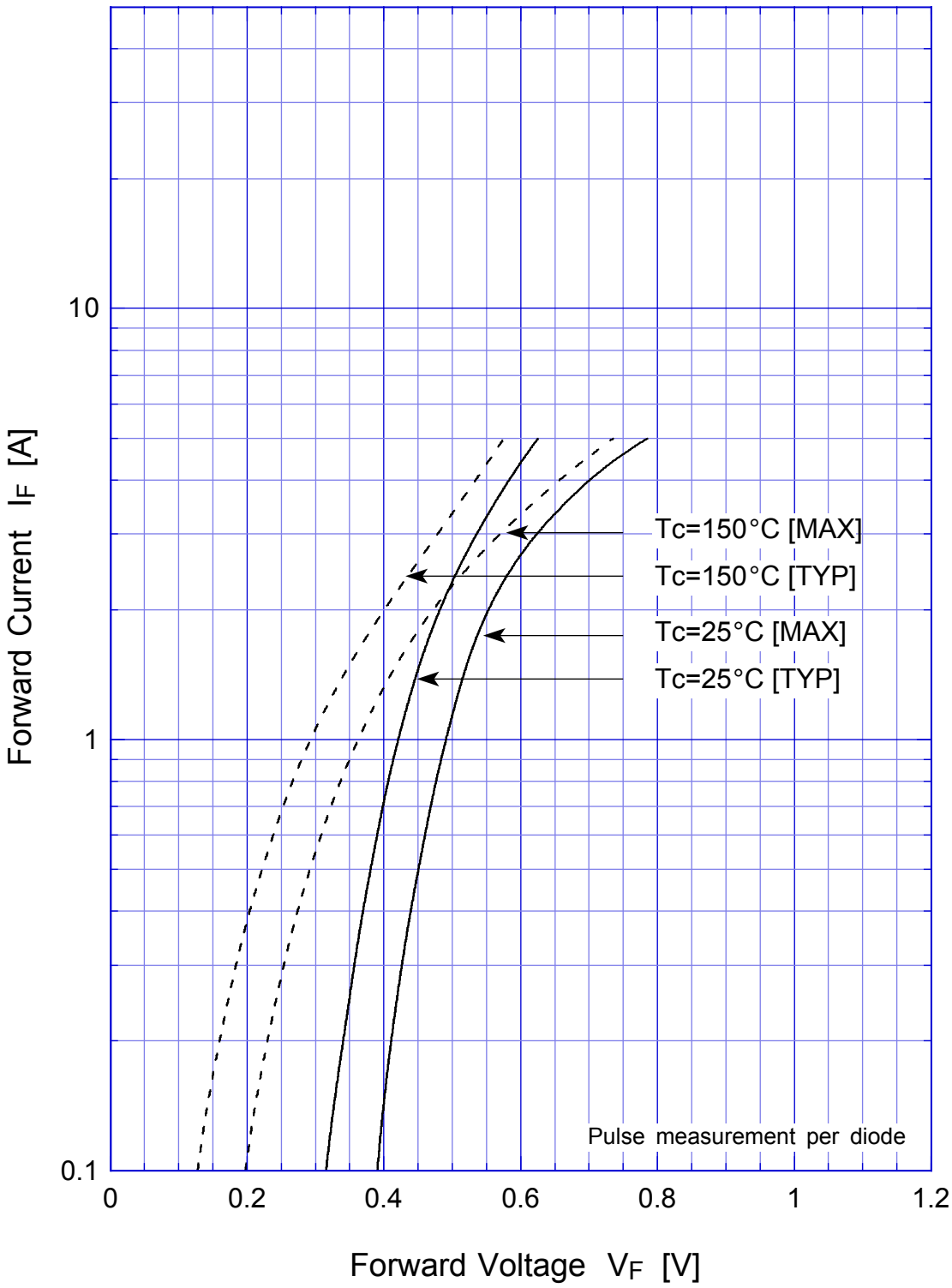
●Absolute Maximum Ratings (If not specified Tc=25℃)

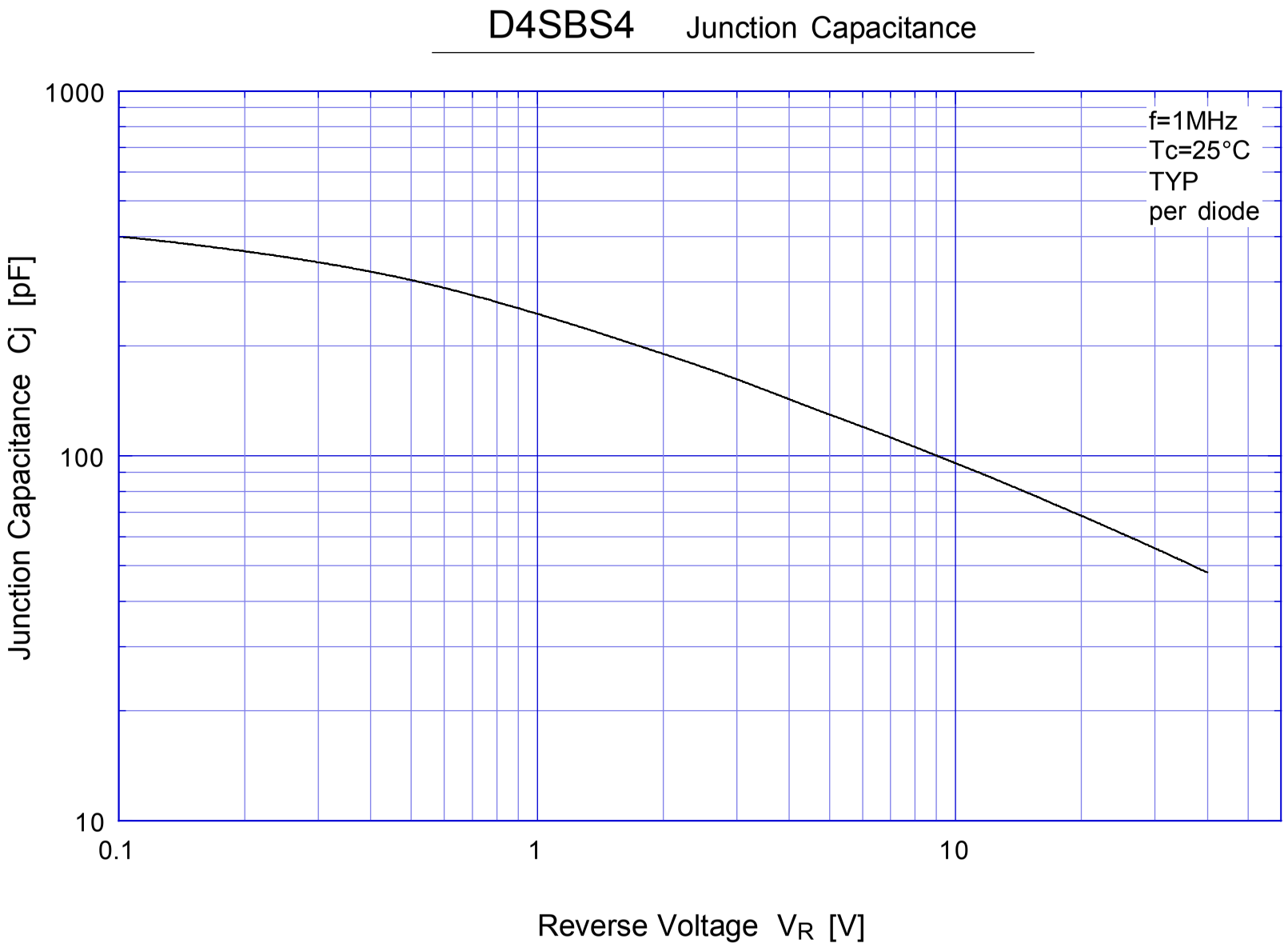
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−55～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load With heatsink Tc=116℃	4	A
		50Hz sine wave, R-load Without heatsink Ta=33℃	2.3	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Tj=25 ℃	60	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Rating of per diode, Tj=25℃	160	W
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque: 0.5N･m)	0.8	N･m

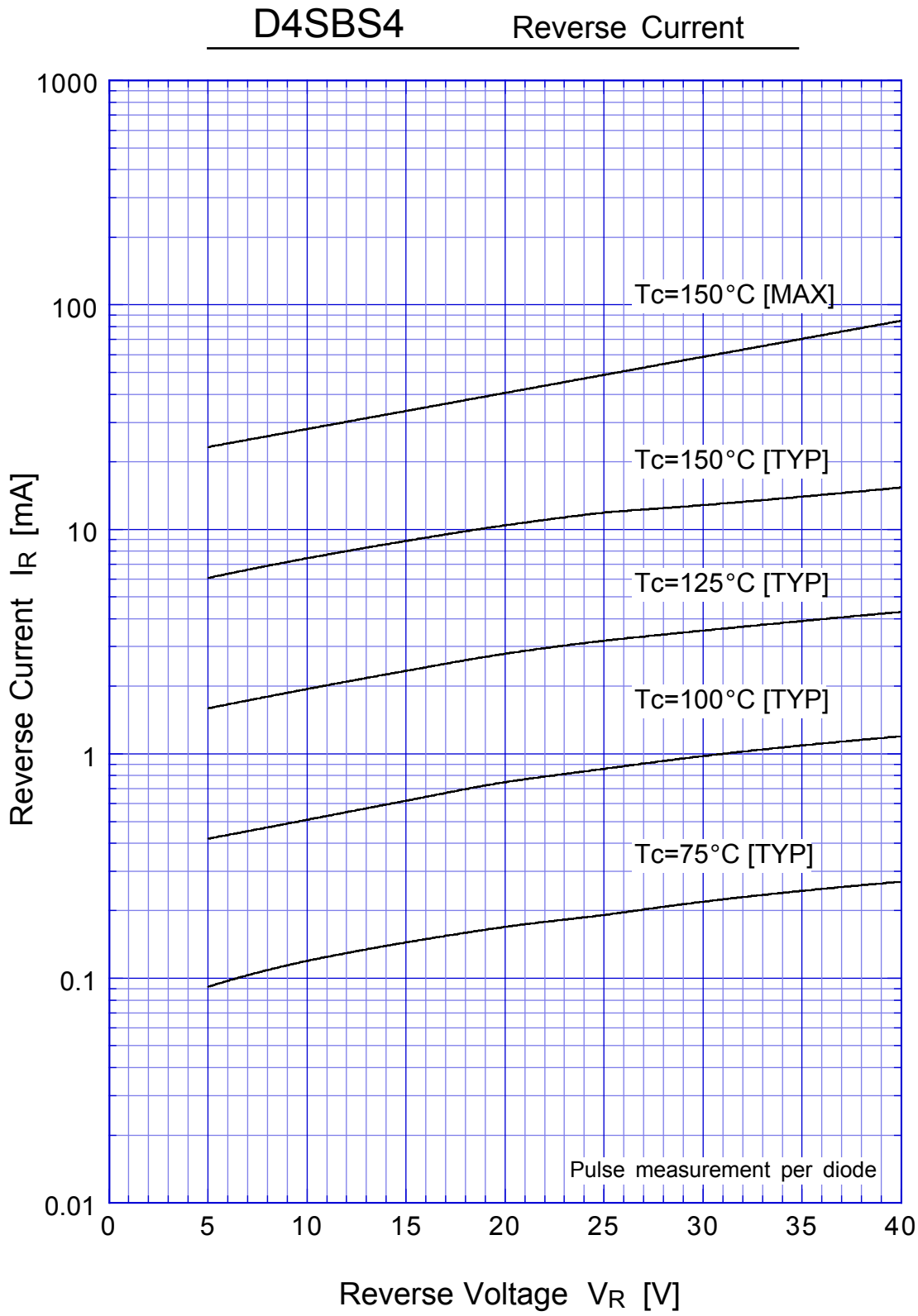
●Electrical Characteristics (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	IF=2A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.2	mA
Junction Capacitance	Cj	f=1MHz, VR=10V, Rating of per arm	TYP 95	pF
Thermal Resistance	θ jc	junction to case With heatsink	Max.5.5	℃/W
	θ jl	junction to lead Without heatsink	Max.6	
	θ ja	junction to ambient Without heatsink	Max.40	

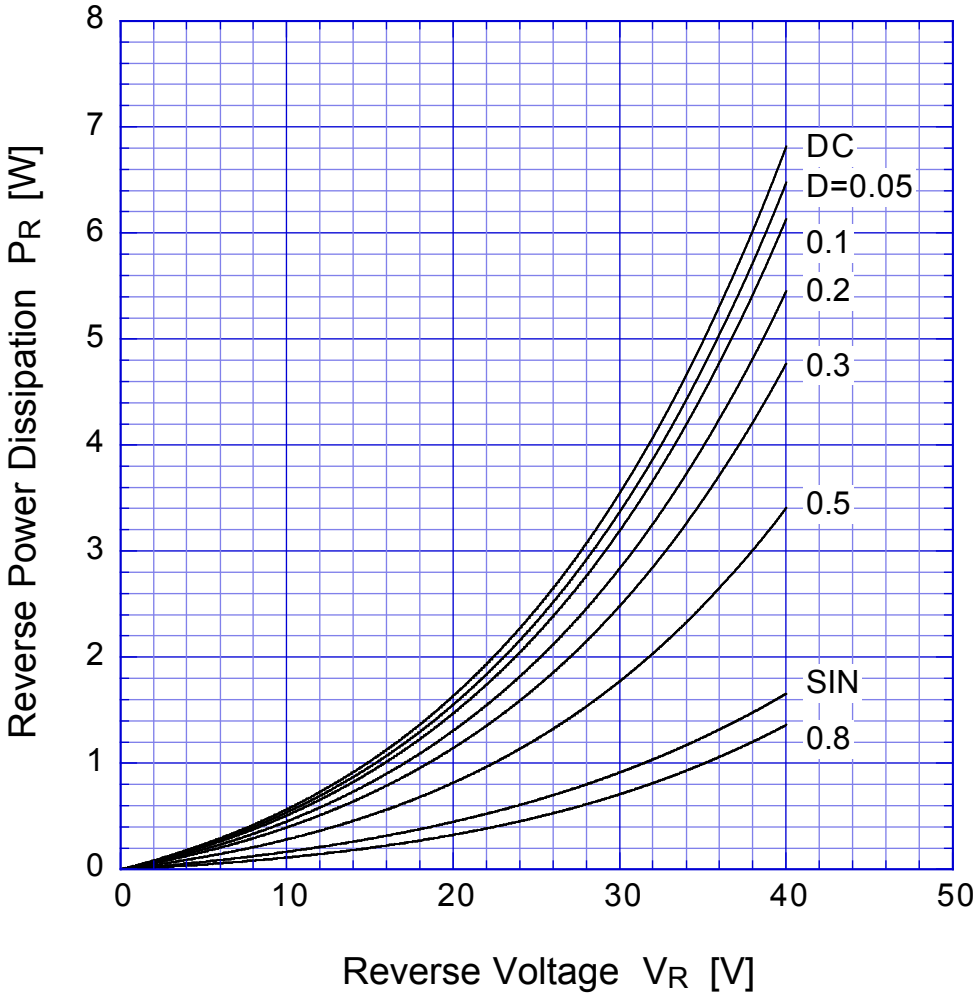
D4SBS4 Forward Voltage

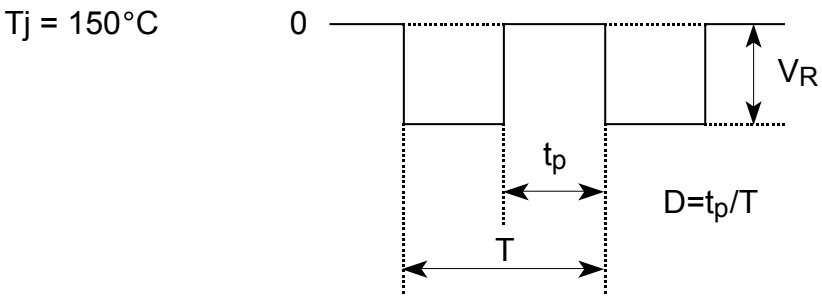



D4SBS4 Junction Capacitance
1000
100
10
0.1
1
10
f=1MHz
Tc=25°C
TYP
per diode
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]

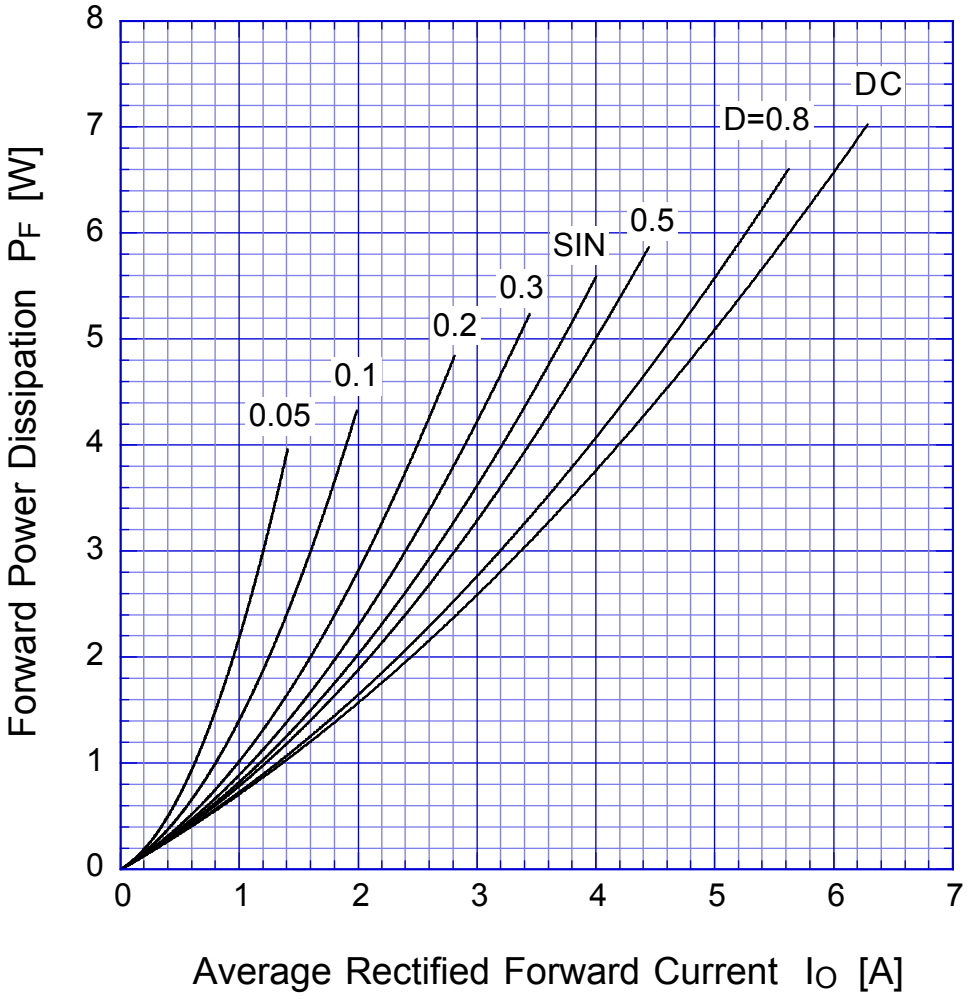

D4SBS4
Reverse Current
1000
100
10
1
0.1
0.01
Reverse Current IR [mA]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=125°C [TYP]
Tc=100°C [TYP]
Tc=75°C [TYP]
Pulse measurement per diode
0
5
10
15
20
25
30
35
40
Reverse Voltage VR [V]

D4SBS4 Reverse Power Dissipation

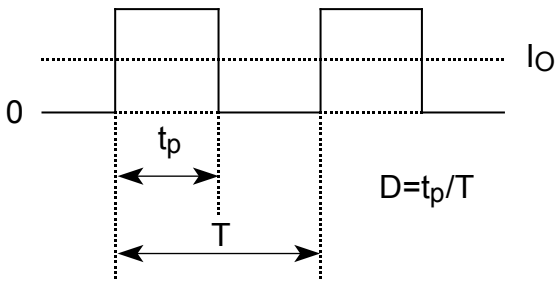




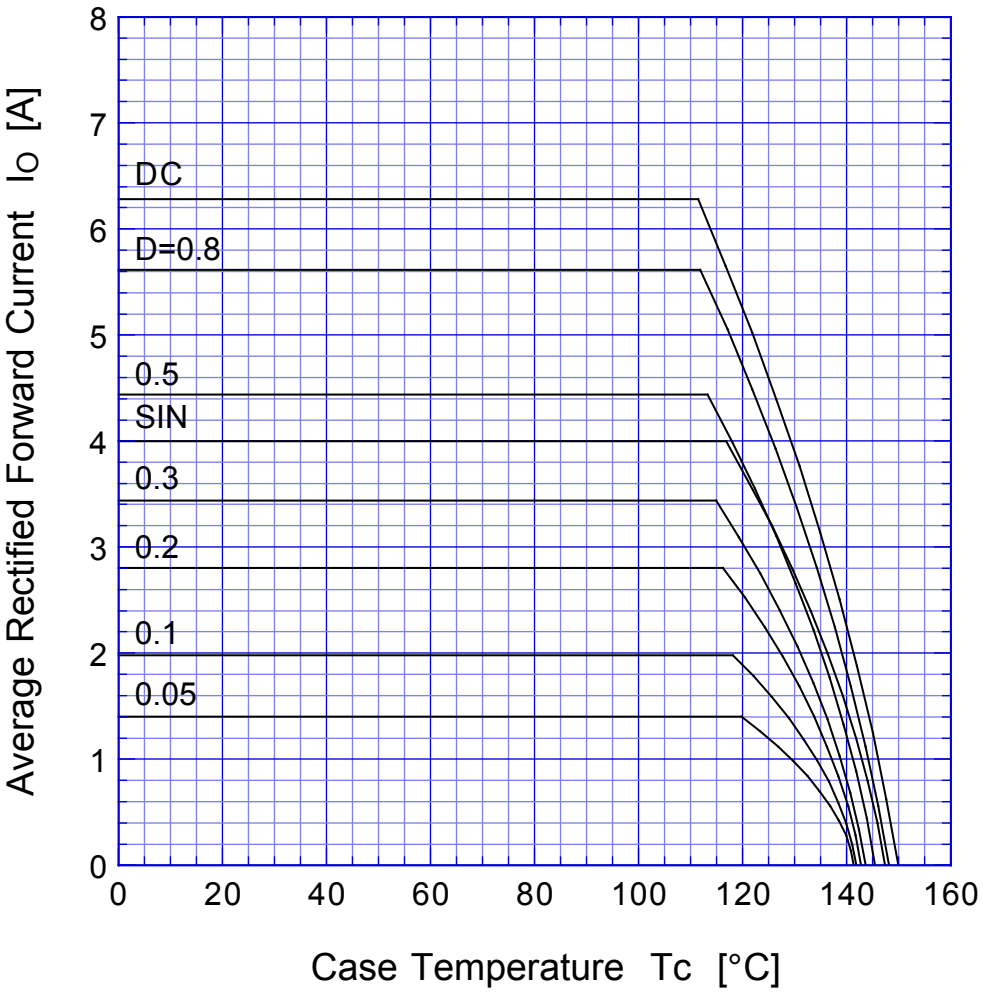
D4SBS4 Forward Power Dissipation



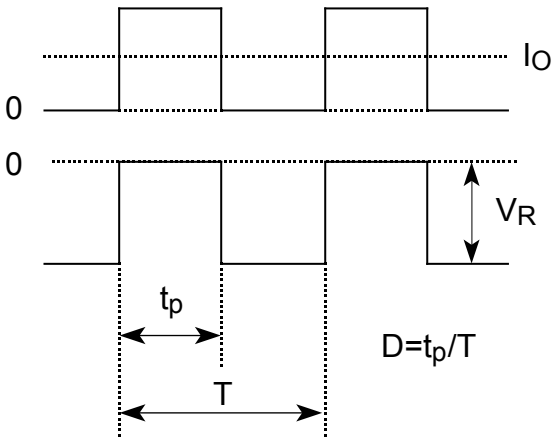
Tj = 150°C



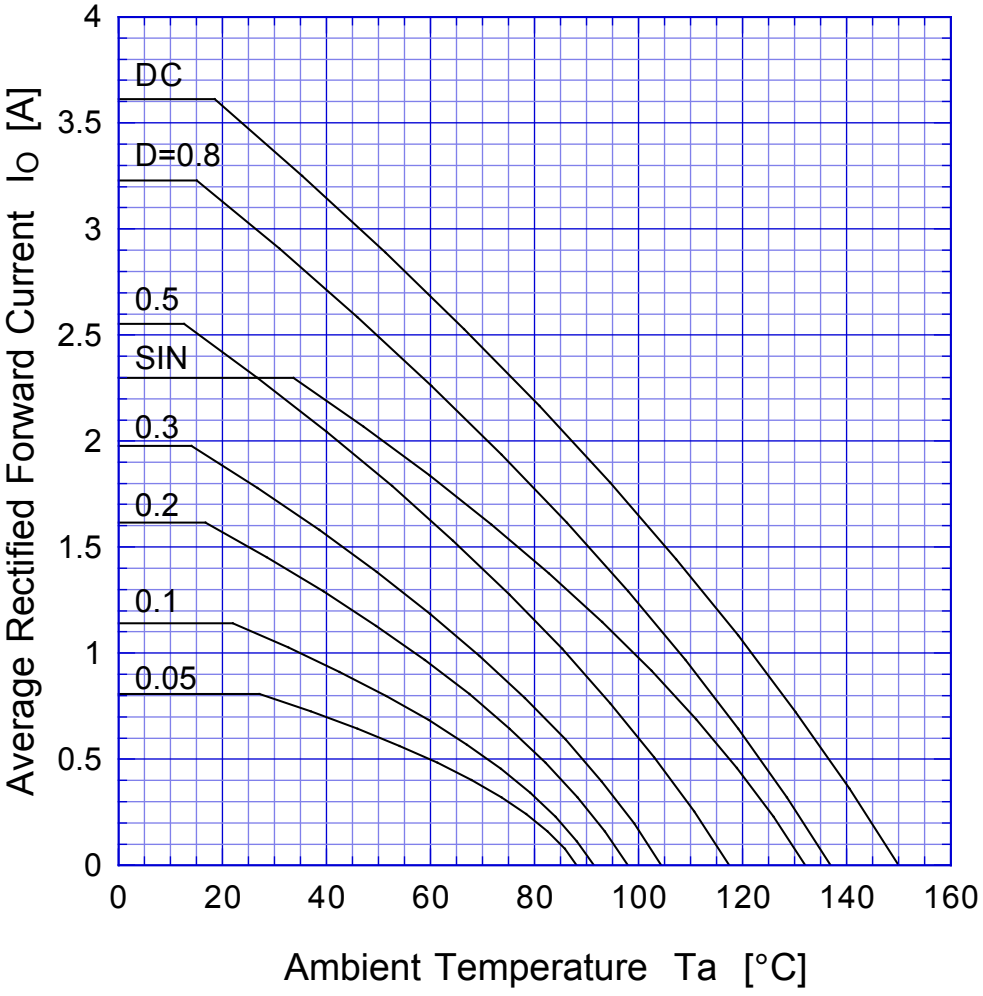
D4SBS4 Derating Curve

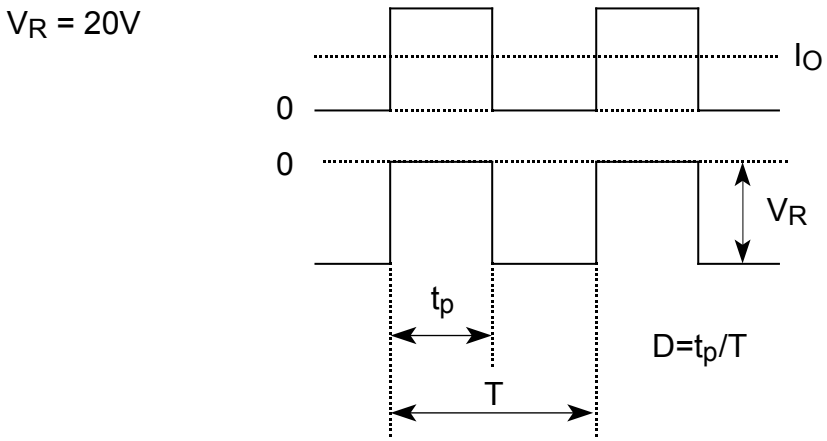


V_R = 20V

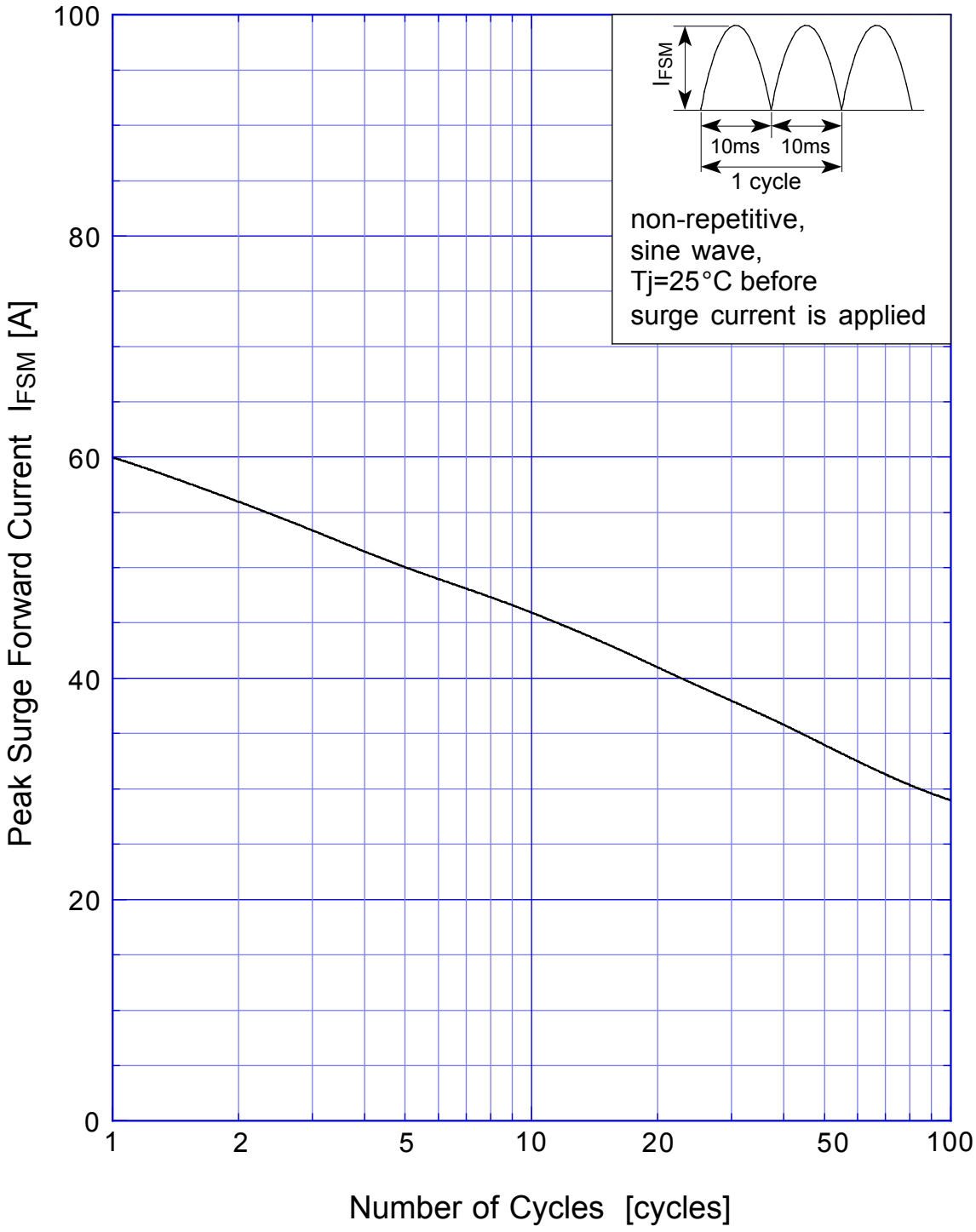


D4SBS4 Derating Curve

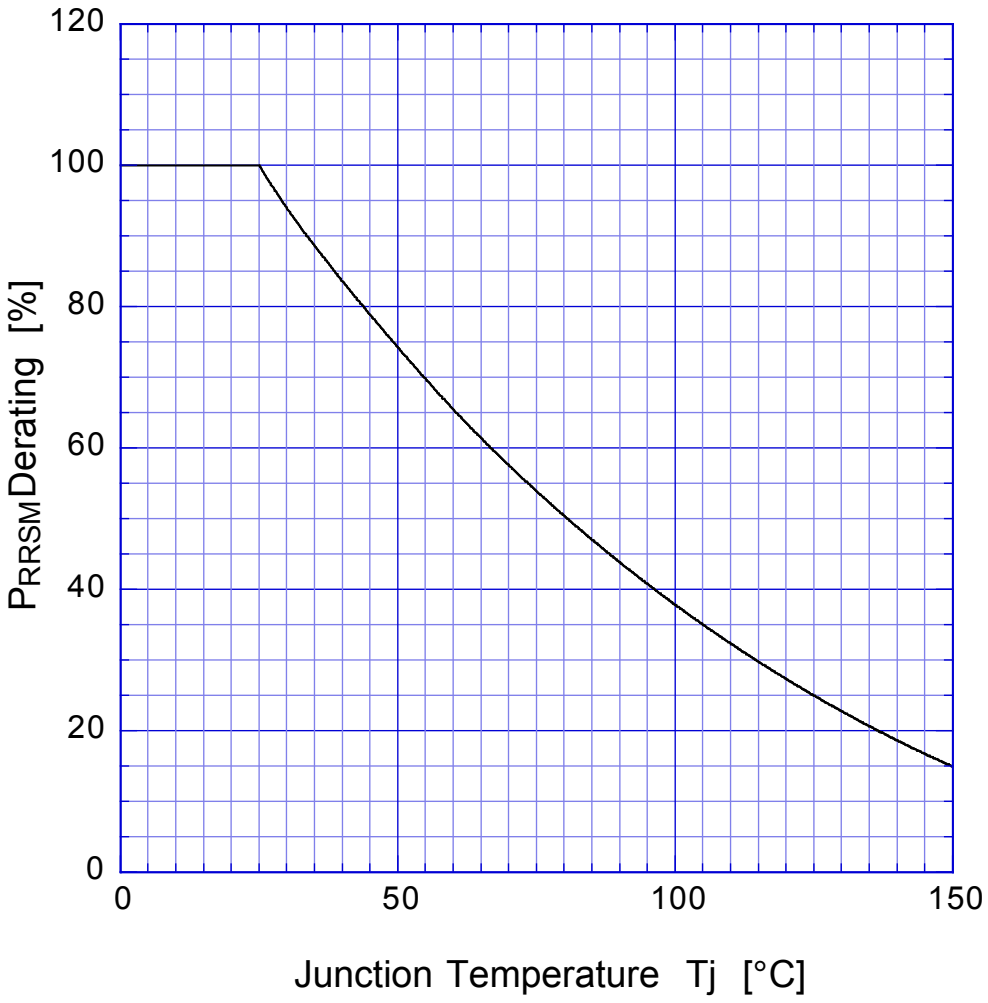


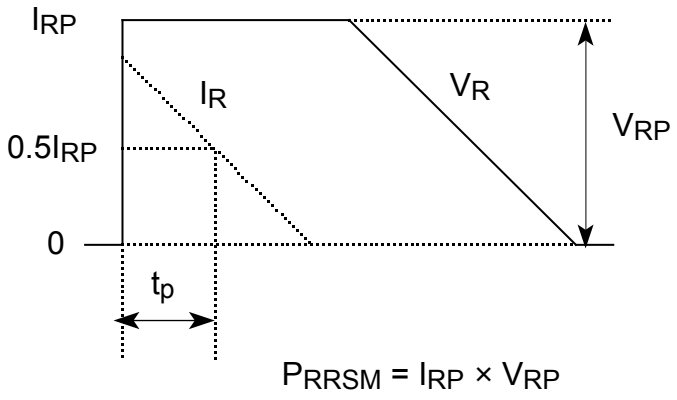


D4SBS4 Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability