SHINDENGEN

Schottky Rectifiers (SBD)

Dual

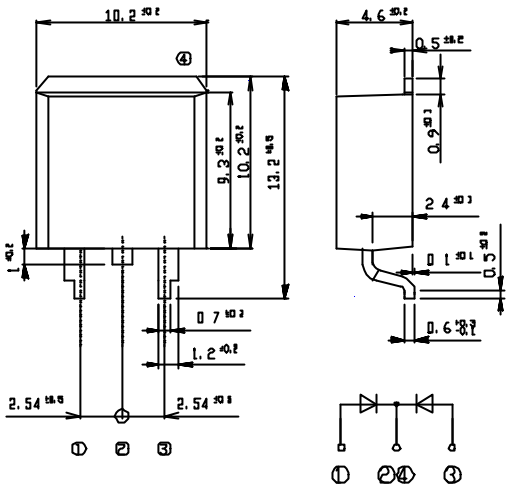
DF10SC6

60V 10A

OUTLINE DIMENSIONS

Case : STO-220

Unit : mm



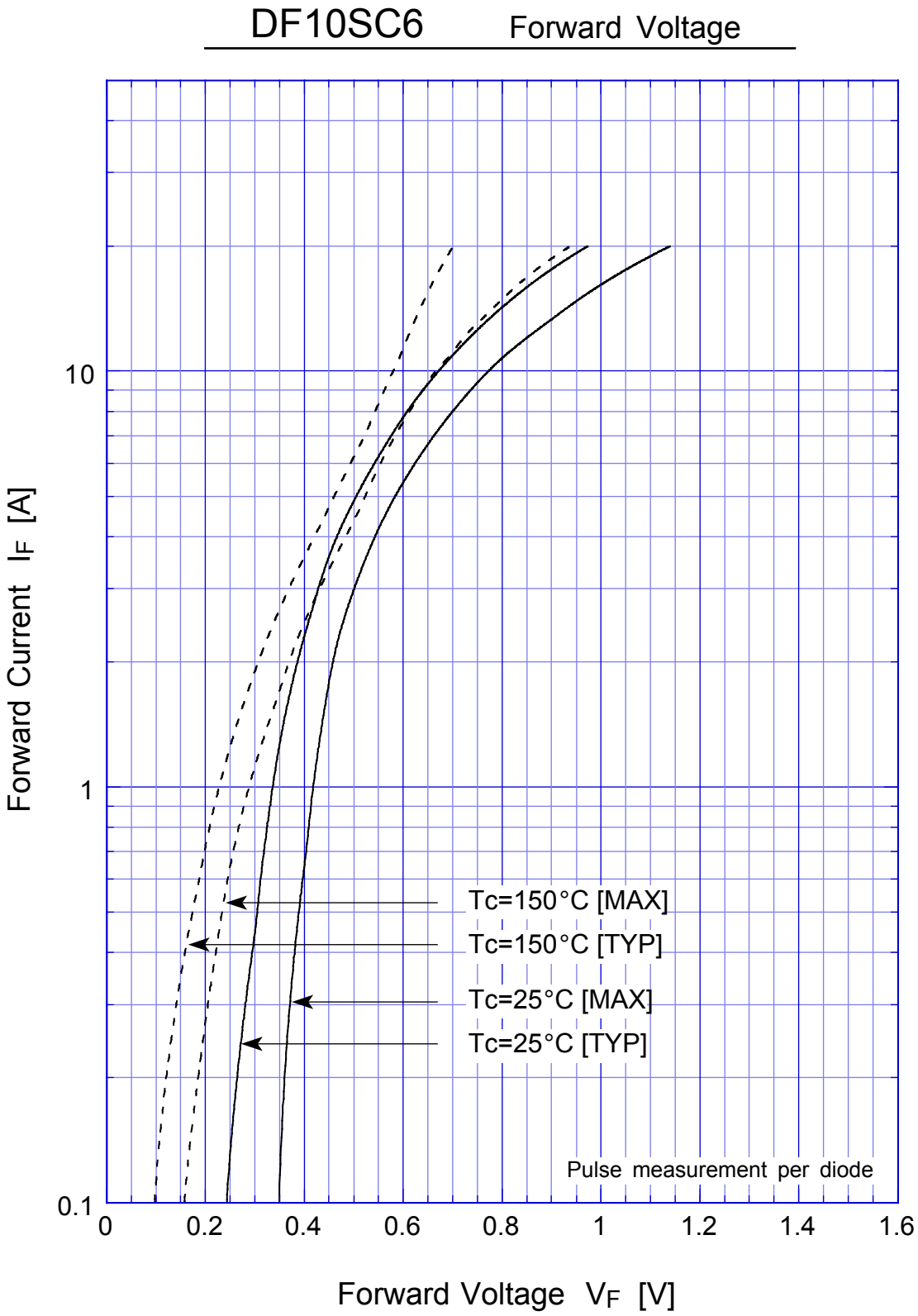
RATINGS

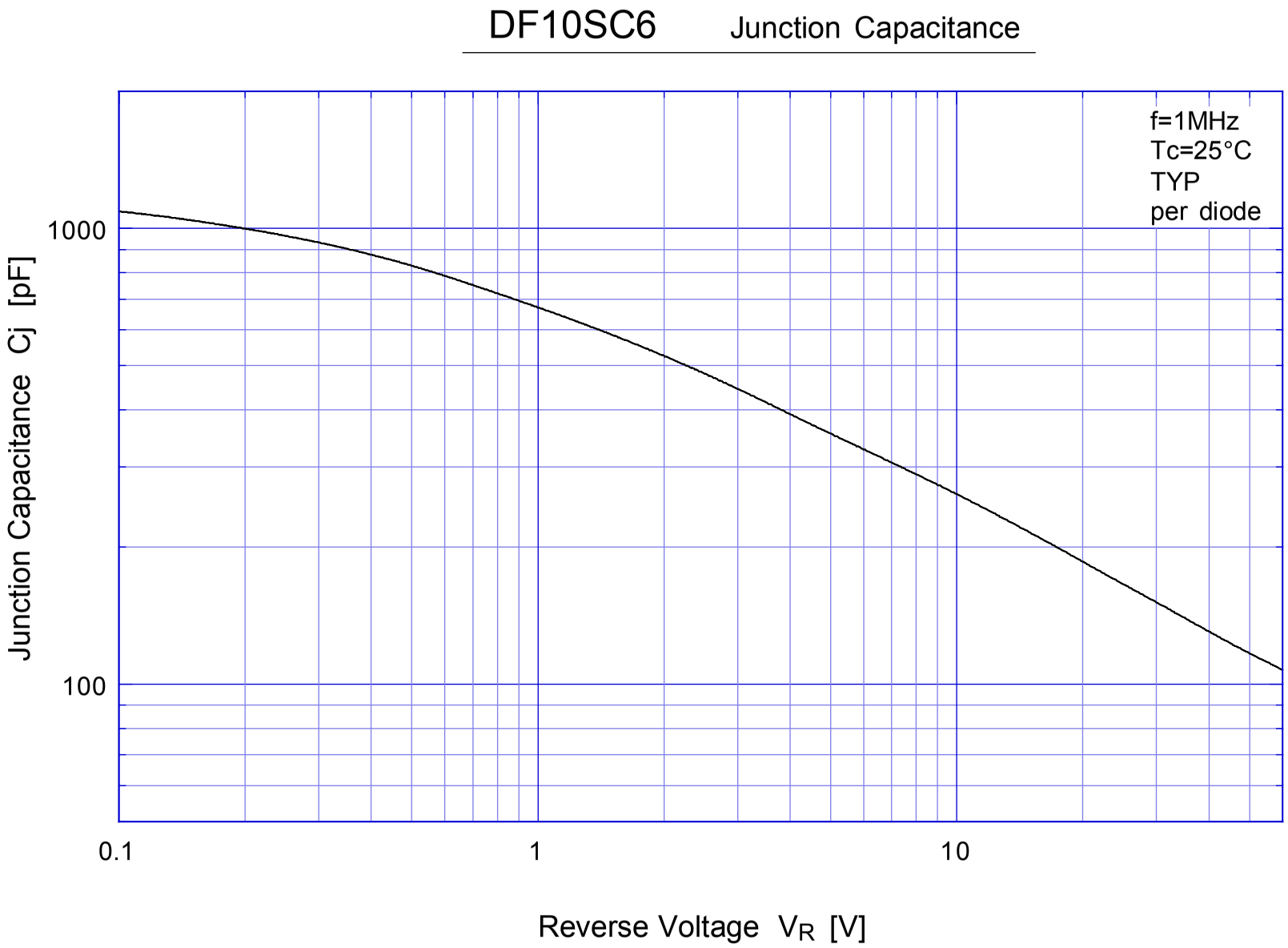
●Absolute Maximum Ratings (If not specified Tc=25°C)

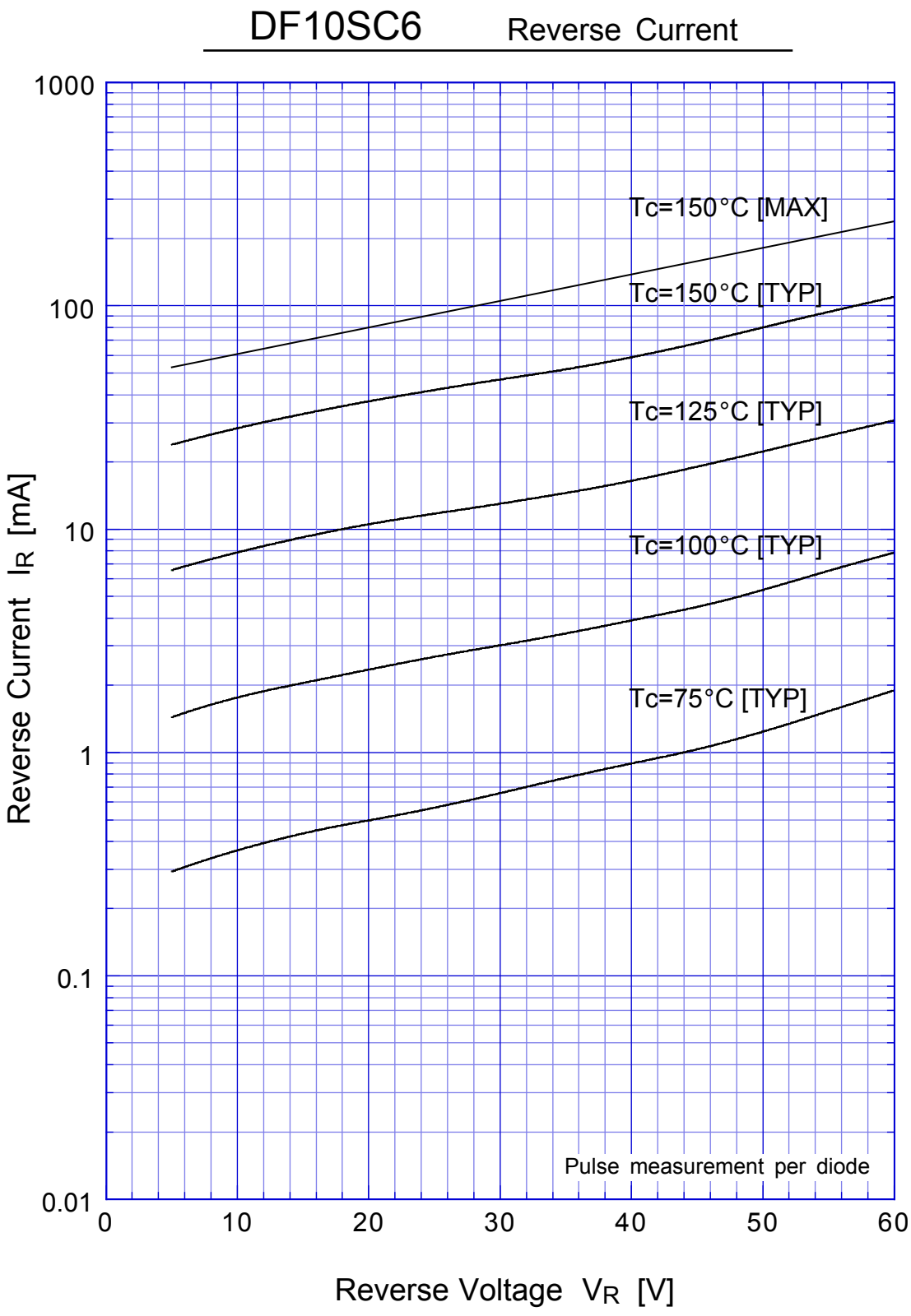
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55～150	°C
Operating Junction Temperature	Tj		150	°C
Peak Reverse Voltage	V_{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Rating for each diode Io/2, Tc=132°C	10	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave , Non-repetitive 1 cycle peak value, Tj=25°C	150	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10μs, Rating of per diode, Tj=25°C	330	W

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

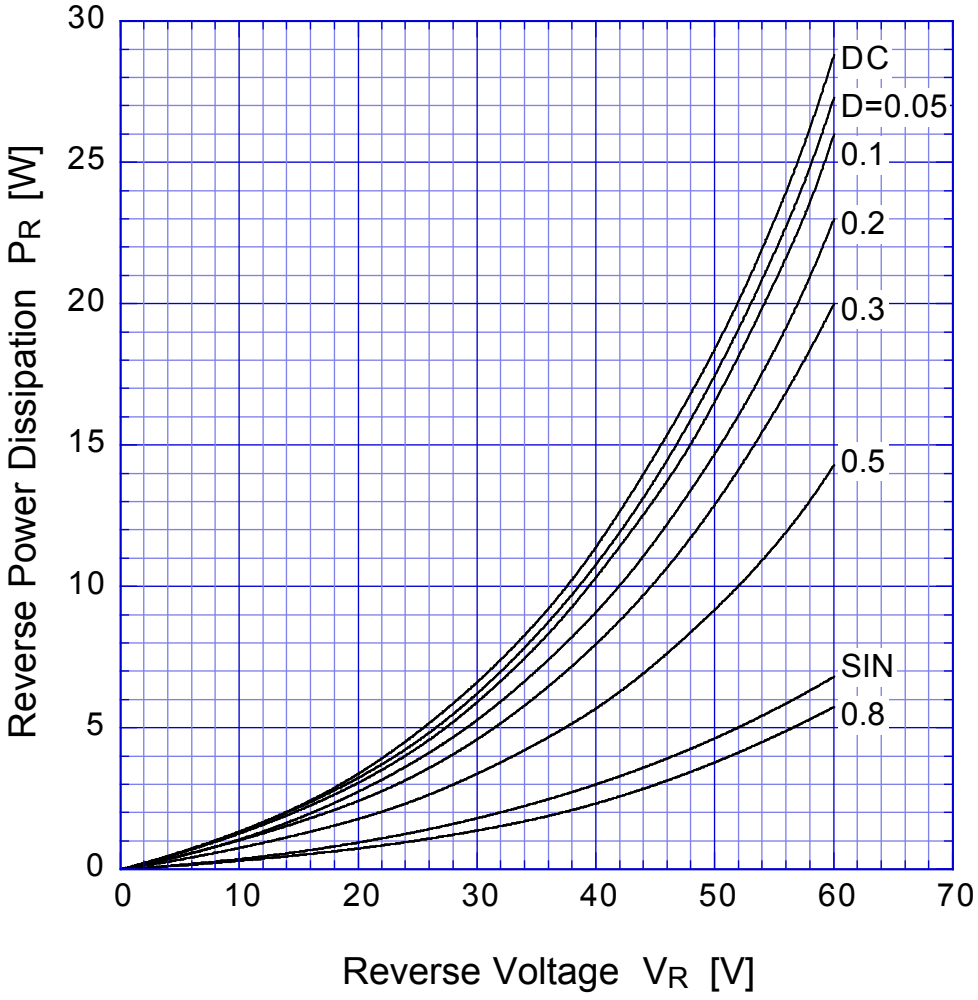
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=5A, Pulse measurement, Rating of per diode	Max.0.58	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement, Rating of per diode	Max.4.5	mA
Junction Capacitance	Cj	f=1MHz, V_R=10V, Rating of per diode	Typ.260	pF
Thermal Resistance	θjc	junction to case	Max.2.0	°C/W


DF10SC6 Forward Voltage
Forward Current IF [A]
10
1
0.1
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=25°C [MAX]
Tc=25°C [TYP]
Pulse measurement per diode

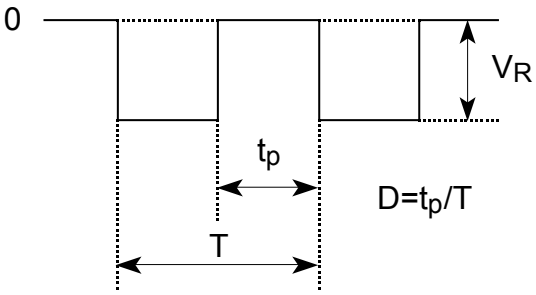

DF10SC6
Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
1000
100
Junction Capacitance Cj [pF]
0.1
1
10
Reverse Voltage VR [V]


DF10SC6 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
10
20
30
40
50
60
Reverse Voltage VR [V]

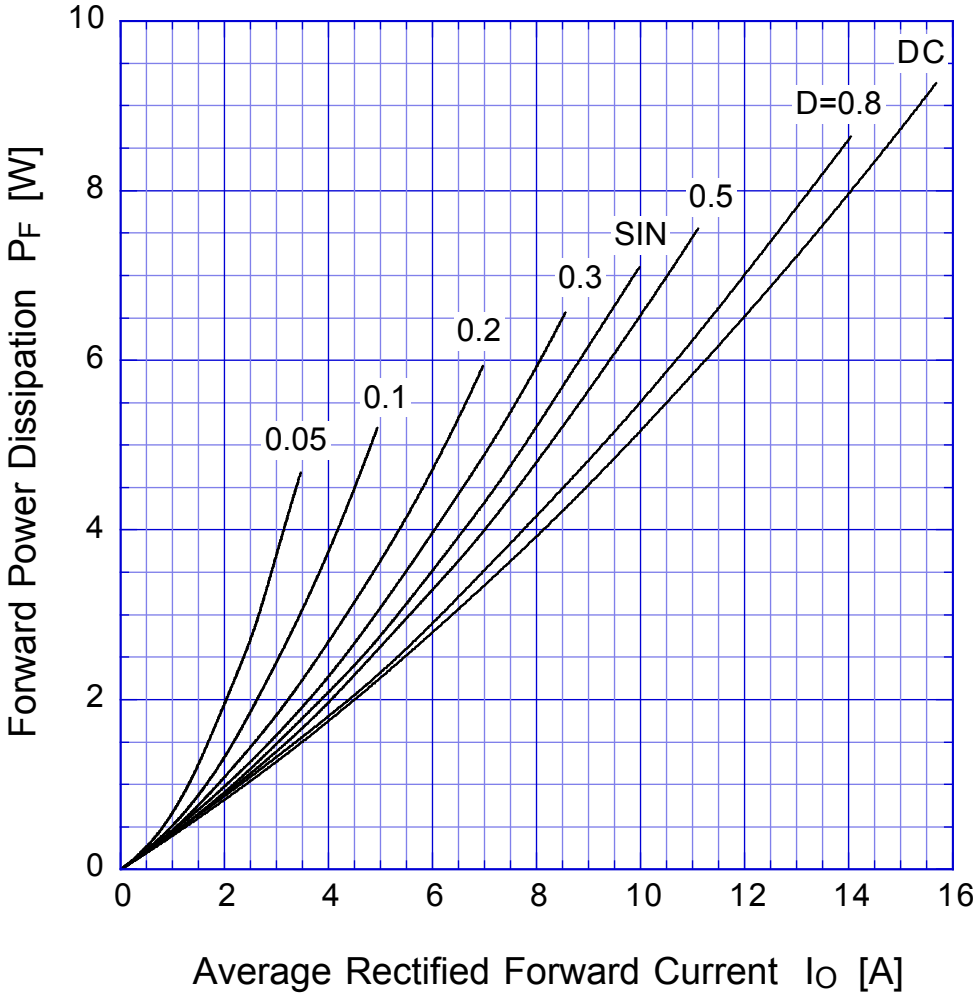
DF10SC6 Reverse Power Dissipation



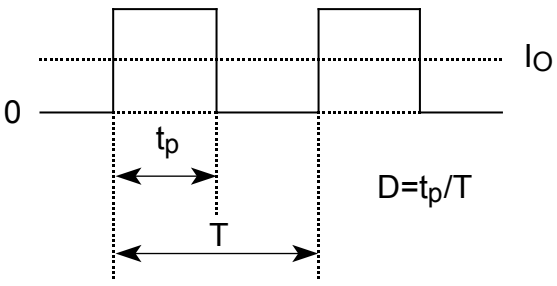
Tj = 150°C



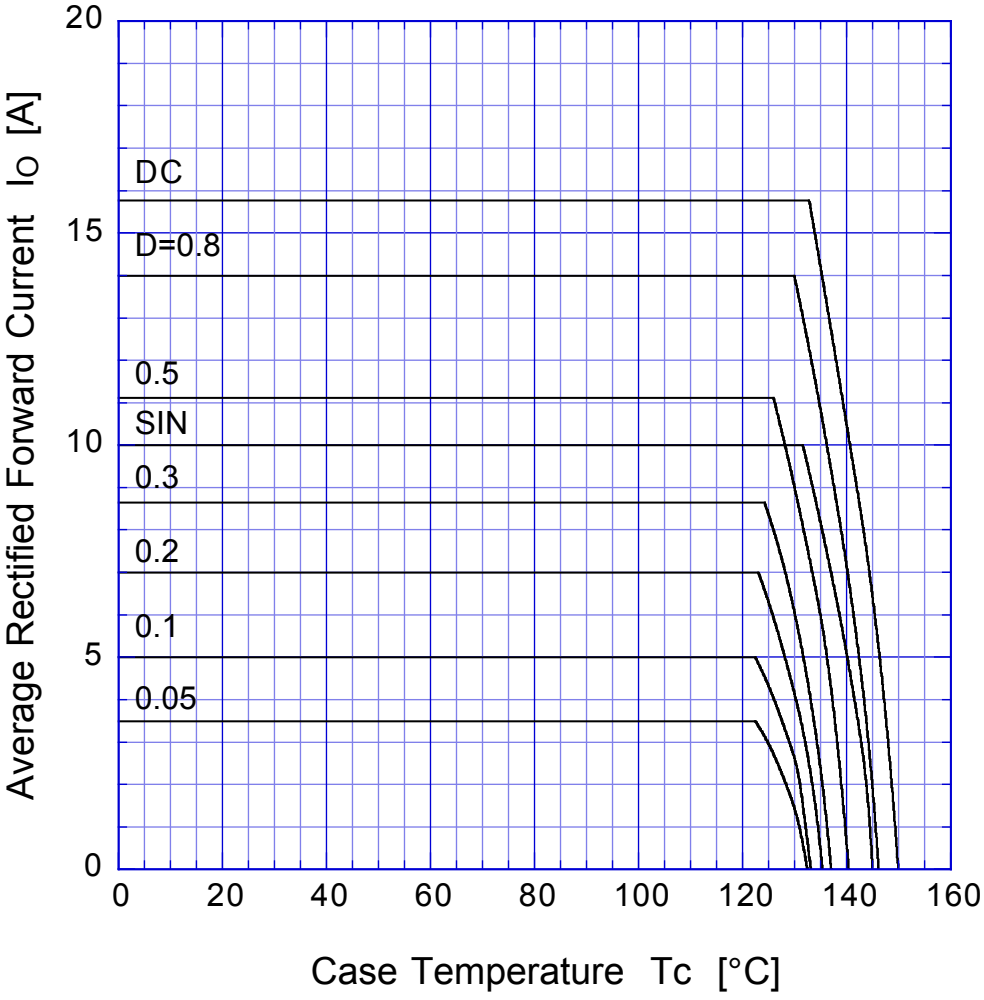
DF10SC6 Forward Power Dissipation



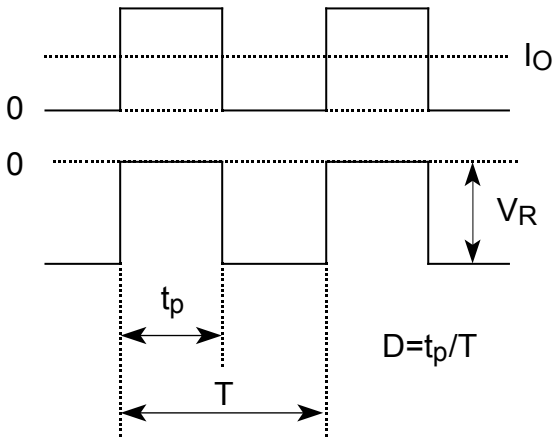
Tj = 150°C



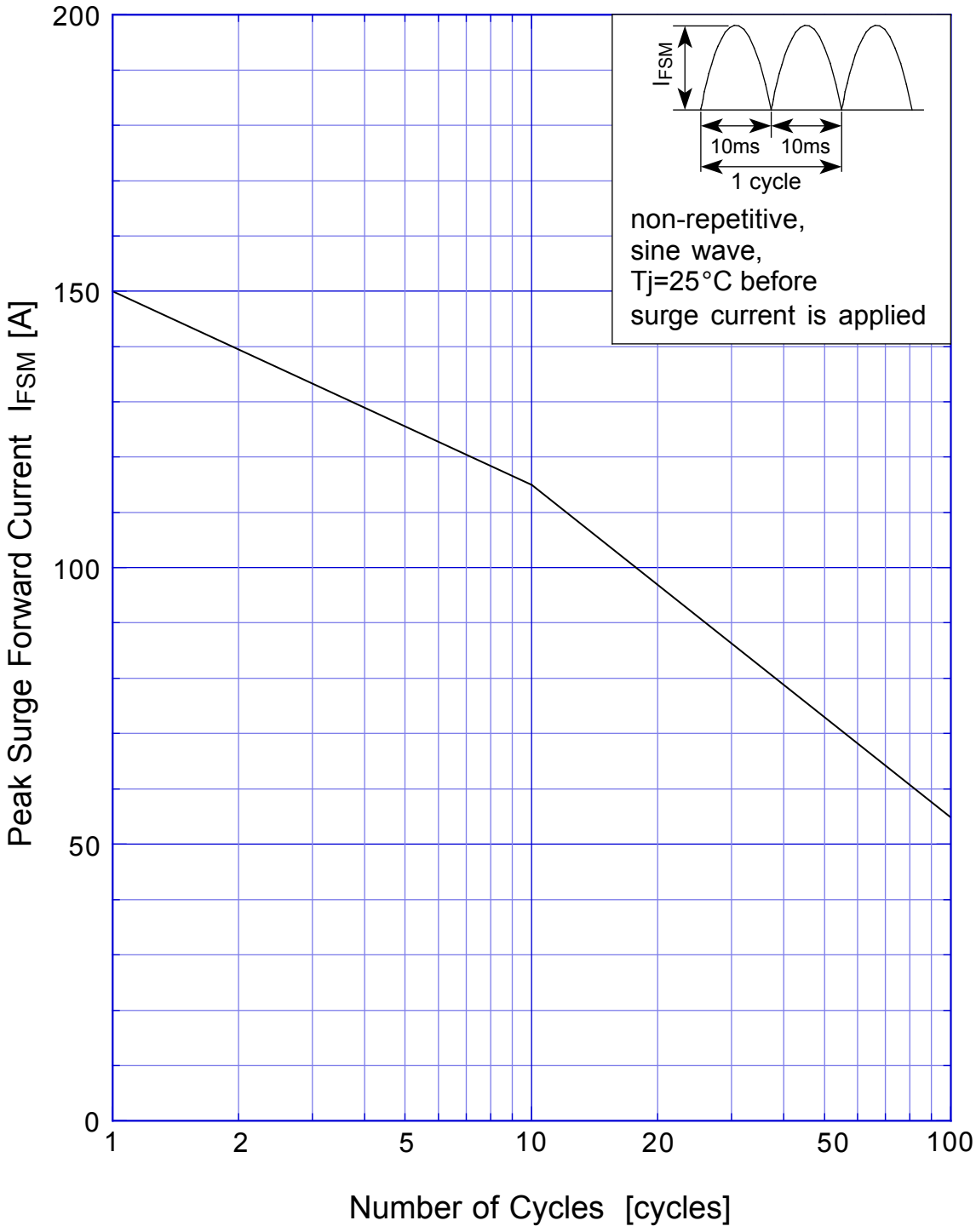
DF10SC6 Derating Curve



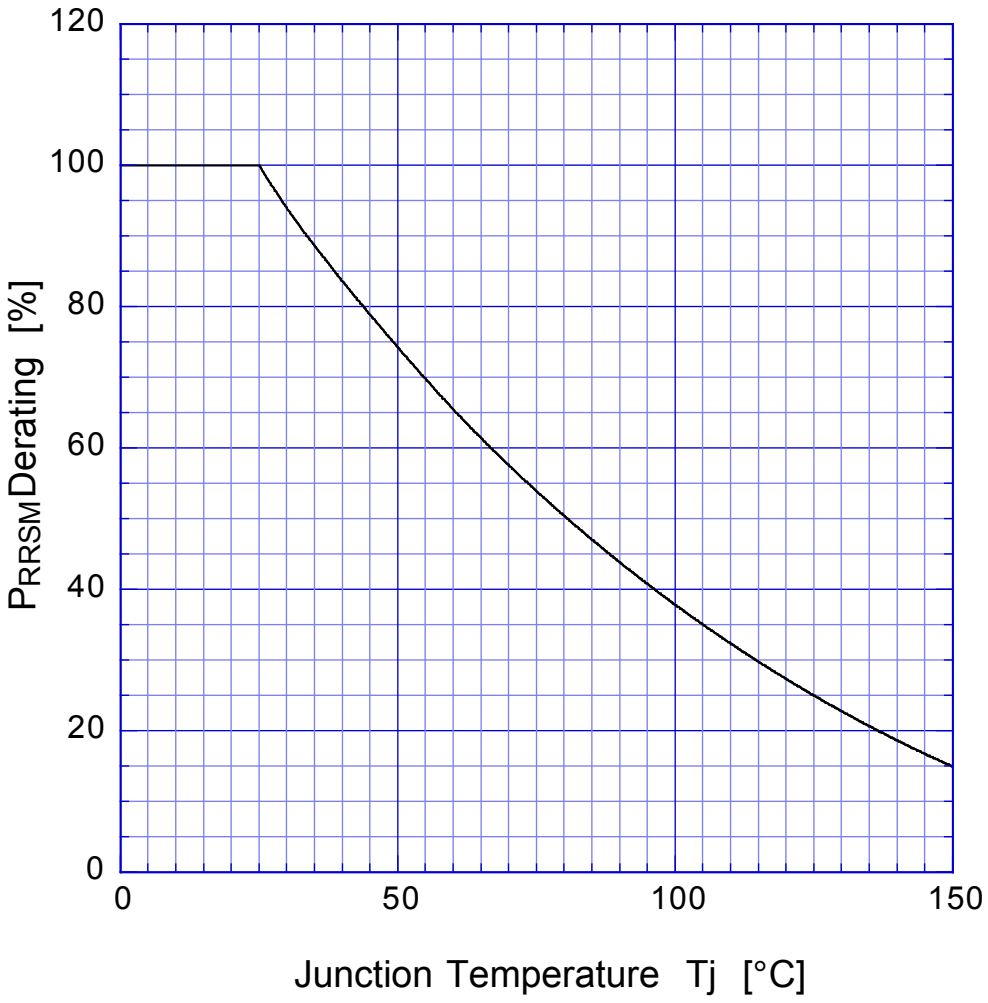
V_R = 30V

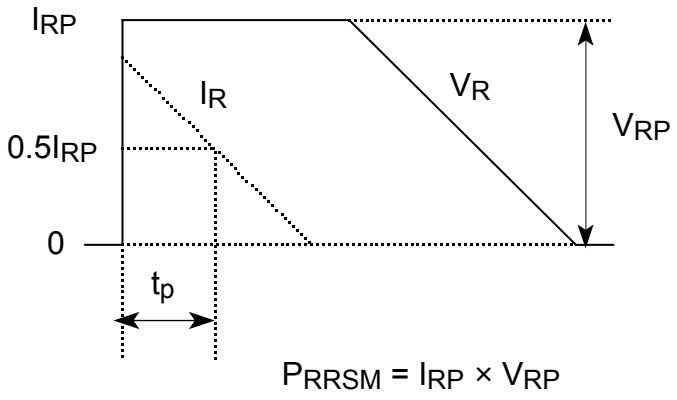


DF10SC6 Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability