SHINDENGEN

Schottky Rectifiers (SBD)

Dual

SF20SC6

60V 20A

FEATURES

- Tj150℃
- P_{RRSM} avalanche guaranteed
- Fully Isolated Molding
- High current capacity with Small Package
- Dielectric strength 2kV guaranteed

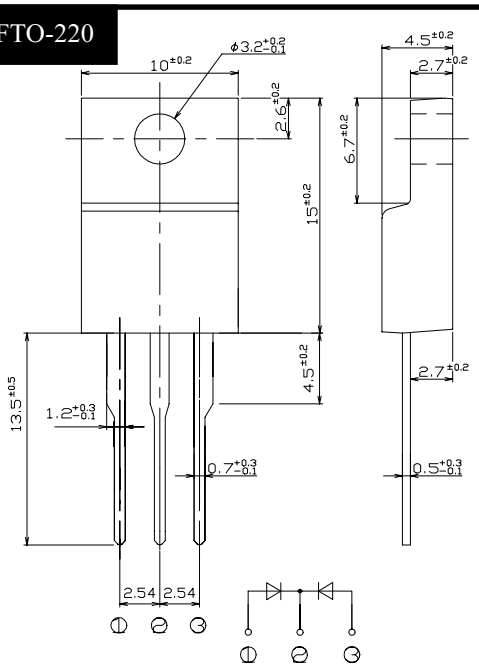
APPLICATION

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

OUTLINE DIMENSIONS

Case : FTO-220

Unit : mm



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}		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=118℃	20	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	230	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10μs, Rating of per diode, Tj=25℃	660	W
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : 0.3N･m)	0.5	N･m

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

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=10A, Pulse measurement, Rating of per diode	Max.0.63	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement, Rating of per diode	Max.8	mA
Junction Capacitance	Cj	f=1MHz, V_R=10V Rating of per diode	Typ.370	pF
Thermal Resistance	θ jc	junction to case	Max.1.8	℃/W
	θ jf	junction to heatsink	Max.4.3	
	θ cf	case to heatsink	Max.2.5	

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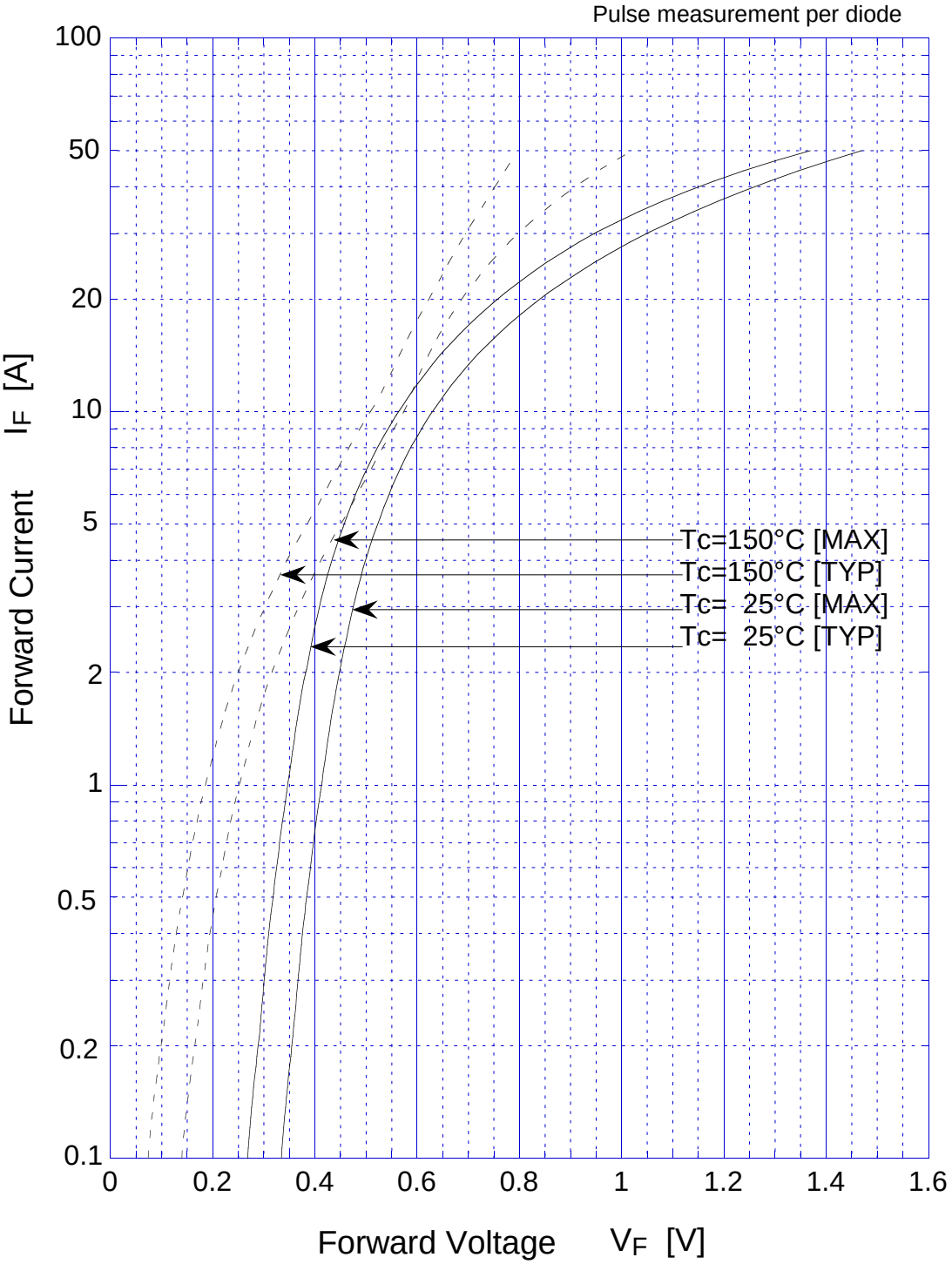
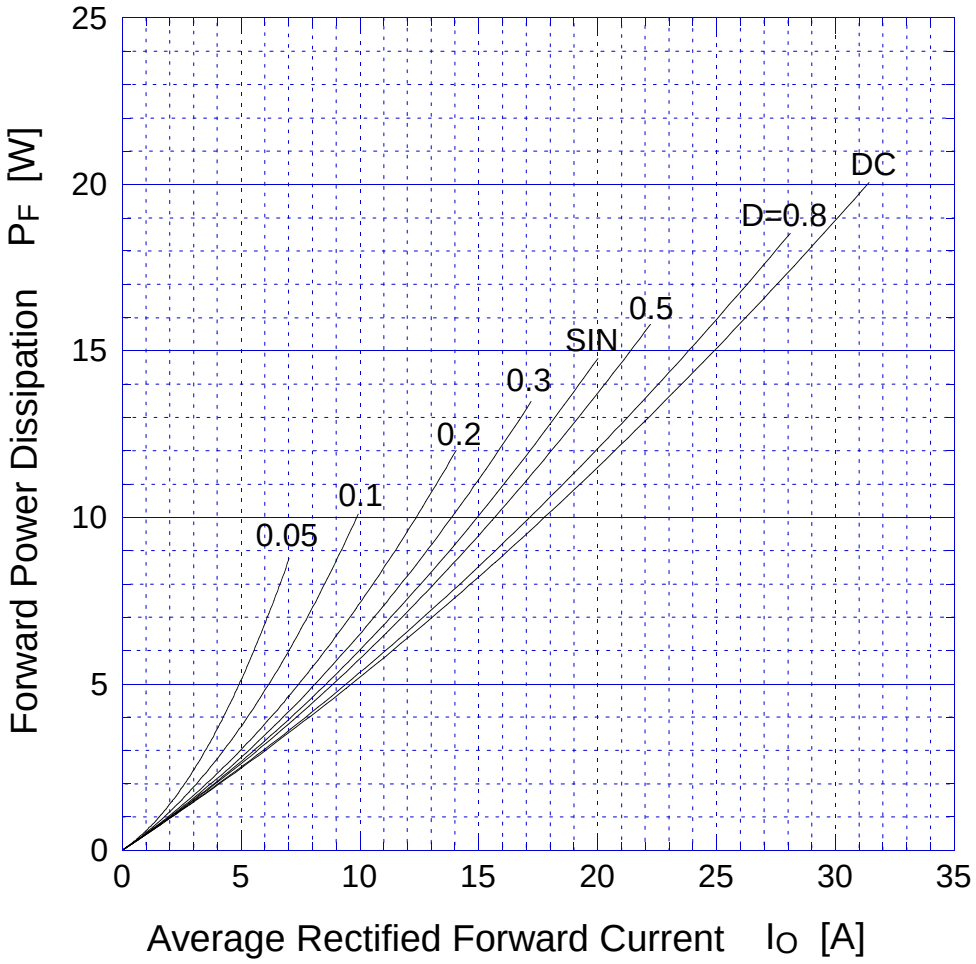
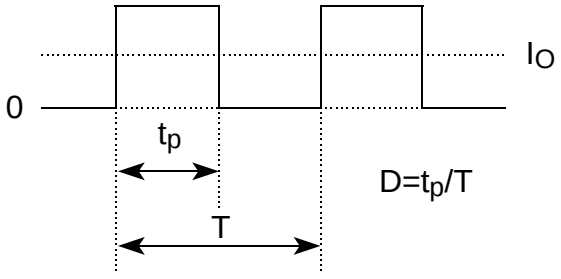
SF20SC6 Forward Voltage



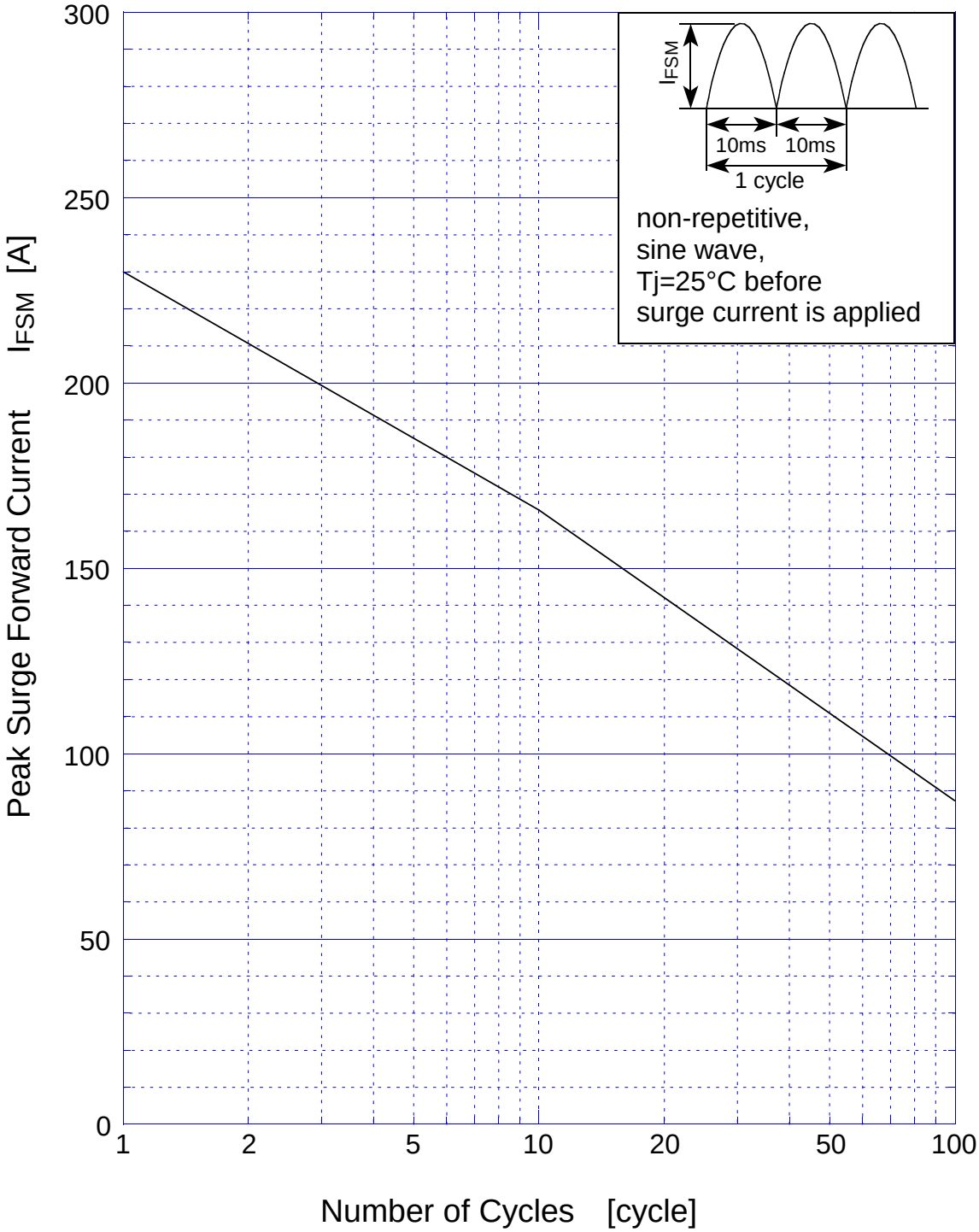
SF20SC6 Forward Power Dissipation



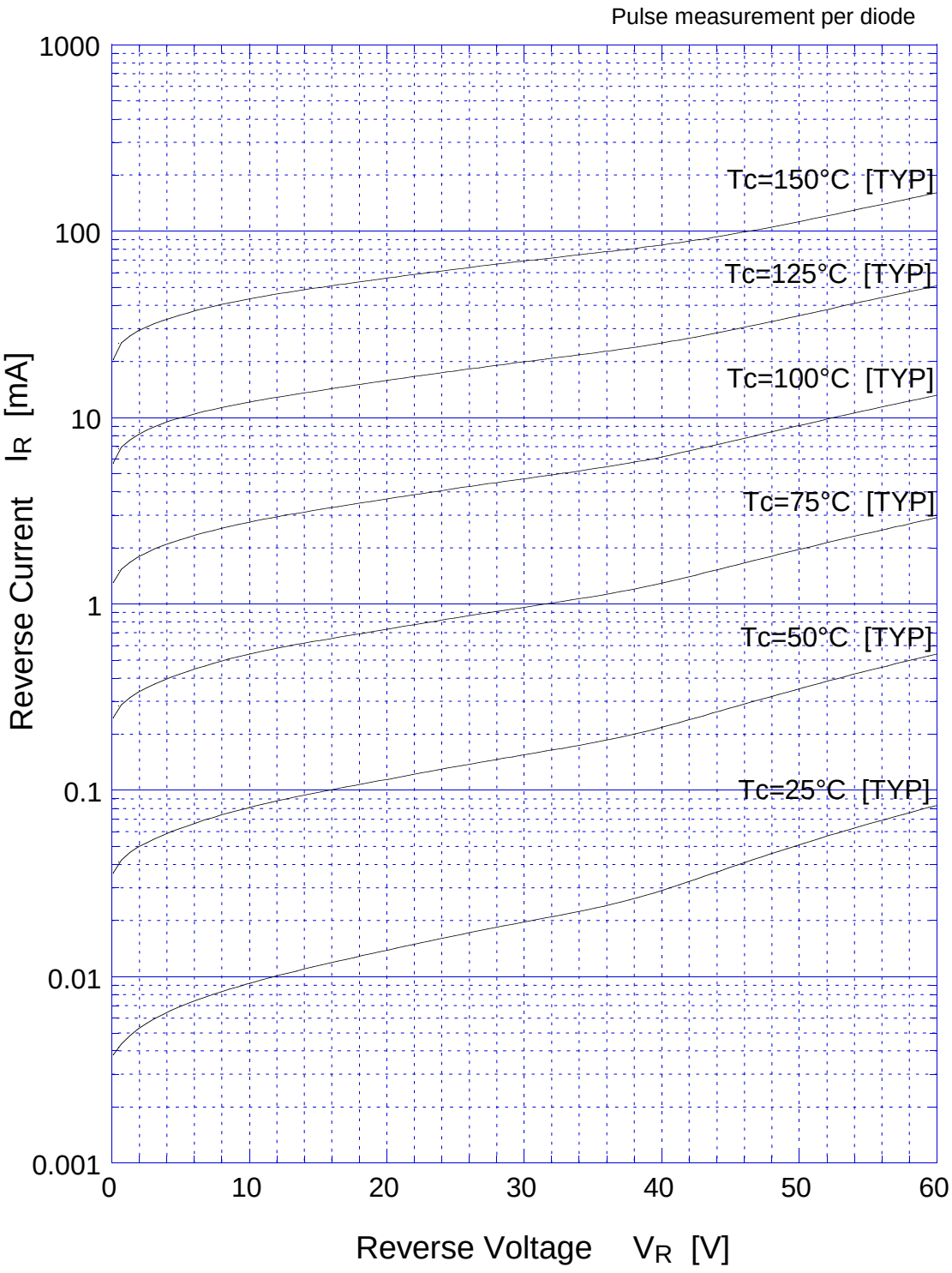
Tj =150°C



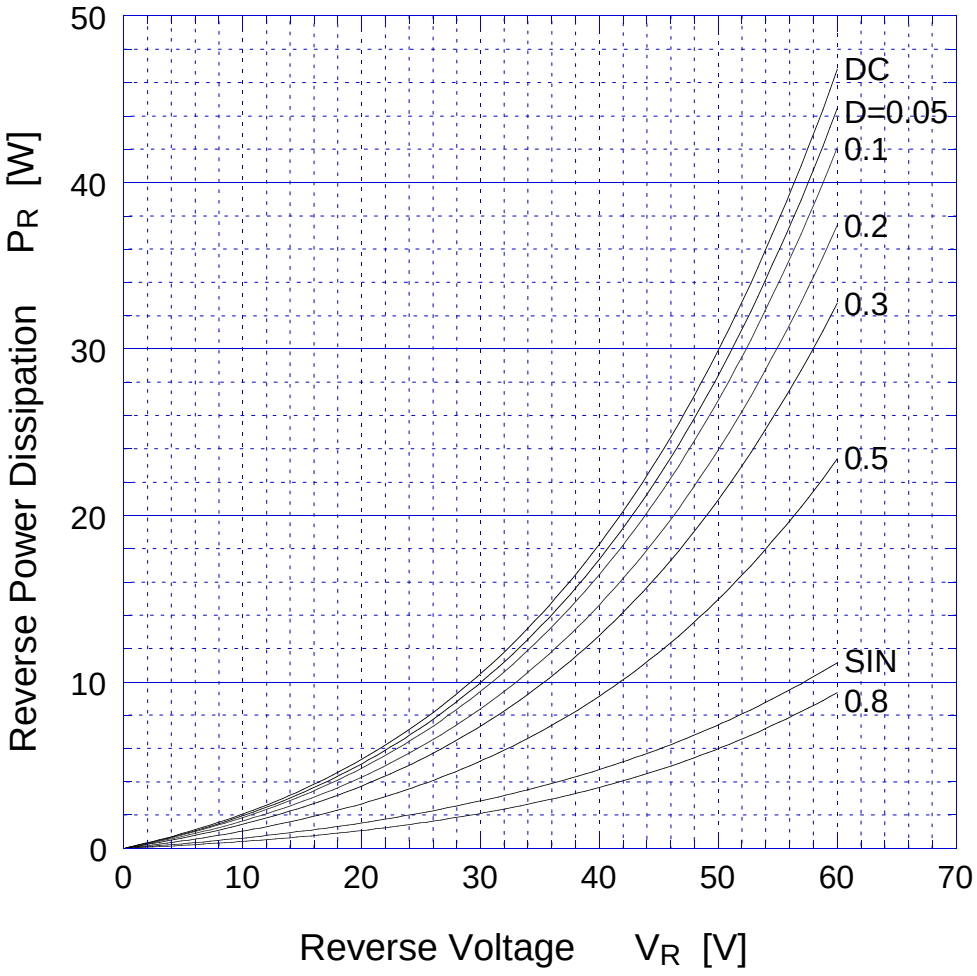
SF20SC6 Peak Surge Forward Capability



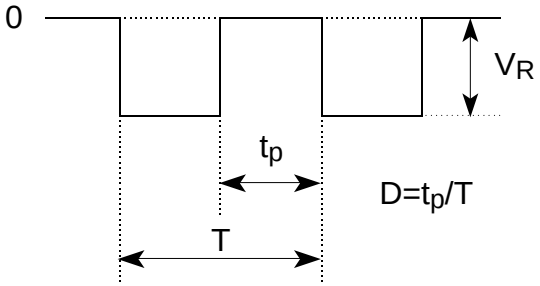
SF20SC6 Reverse Current

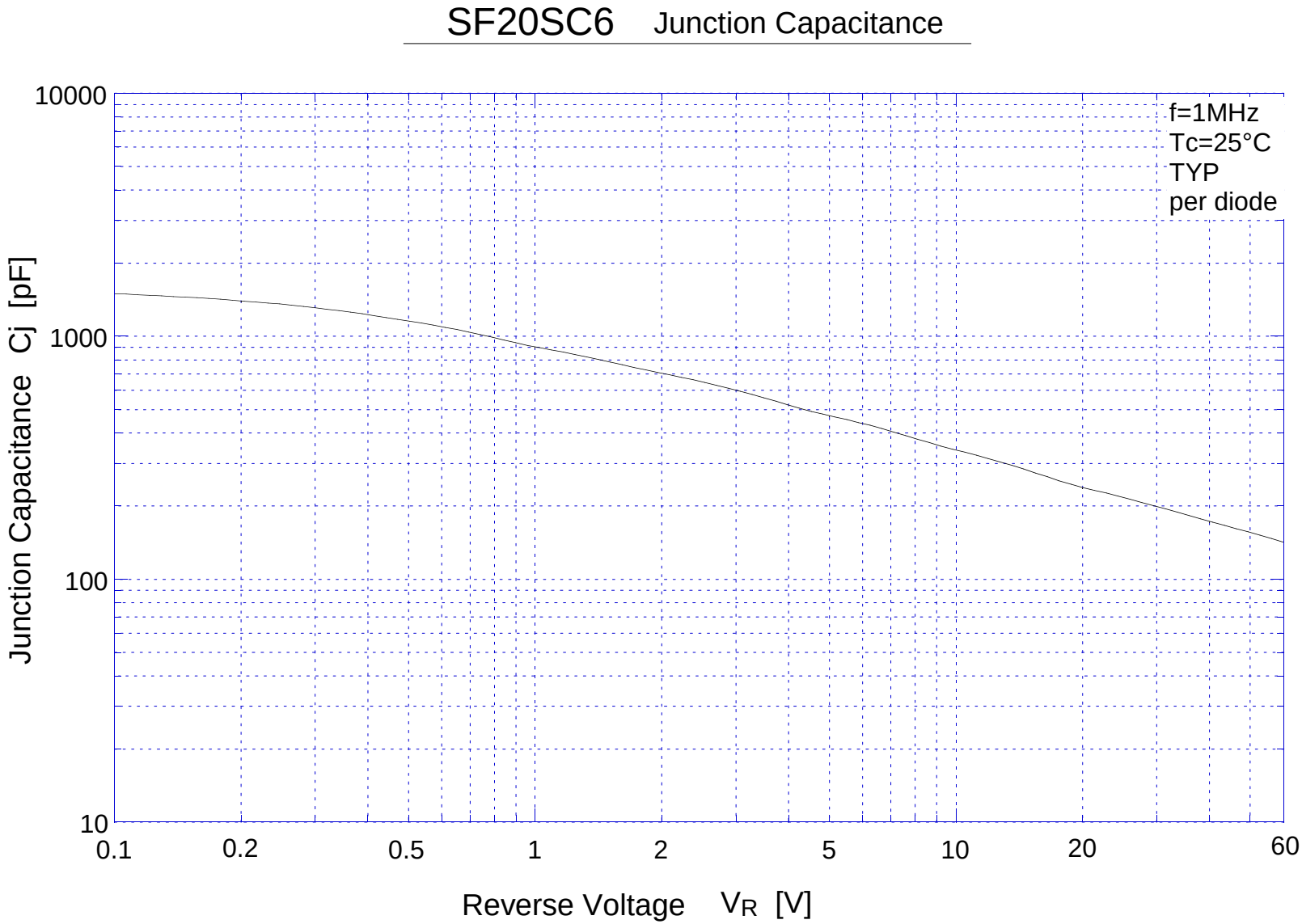


SF20SC6 Reverse Power Dissipation

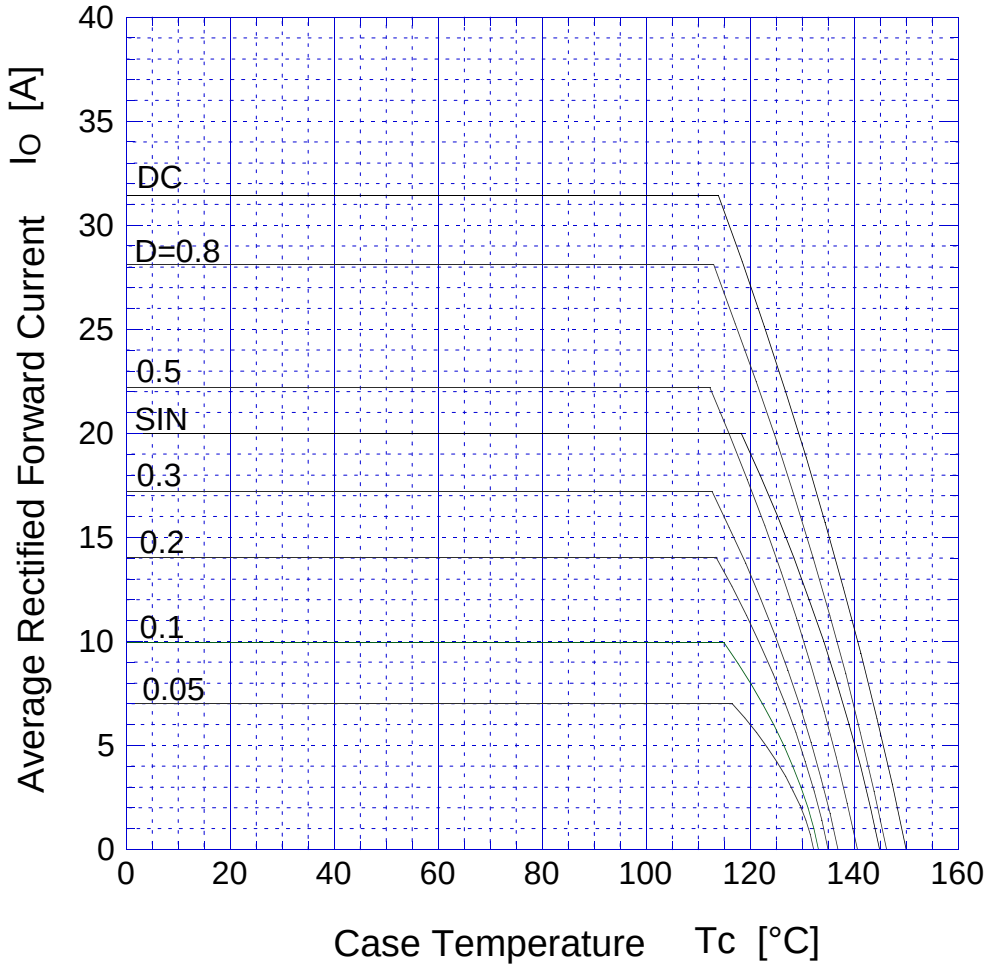


Tj =150°C

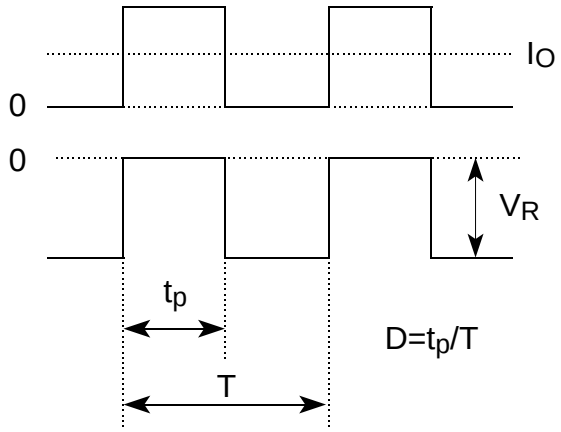



SF20SC6 Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
Junction Capacitance Cj [pF]
10000
1000
100
10
0.1
0.2
0.5
1
2
5
10
20
60
Reverse Voltage VR [V]

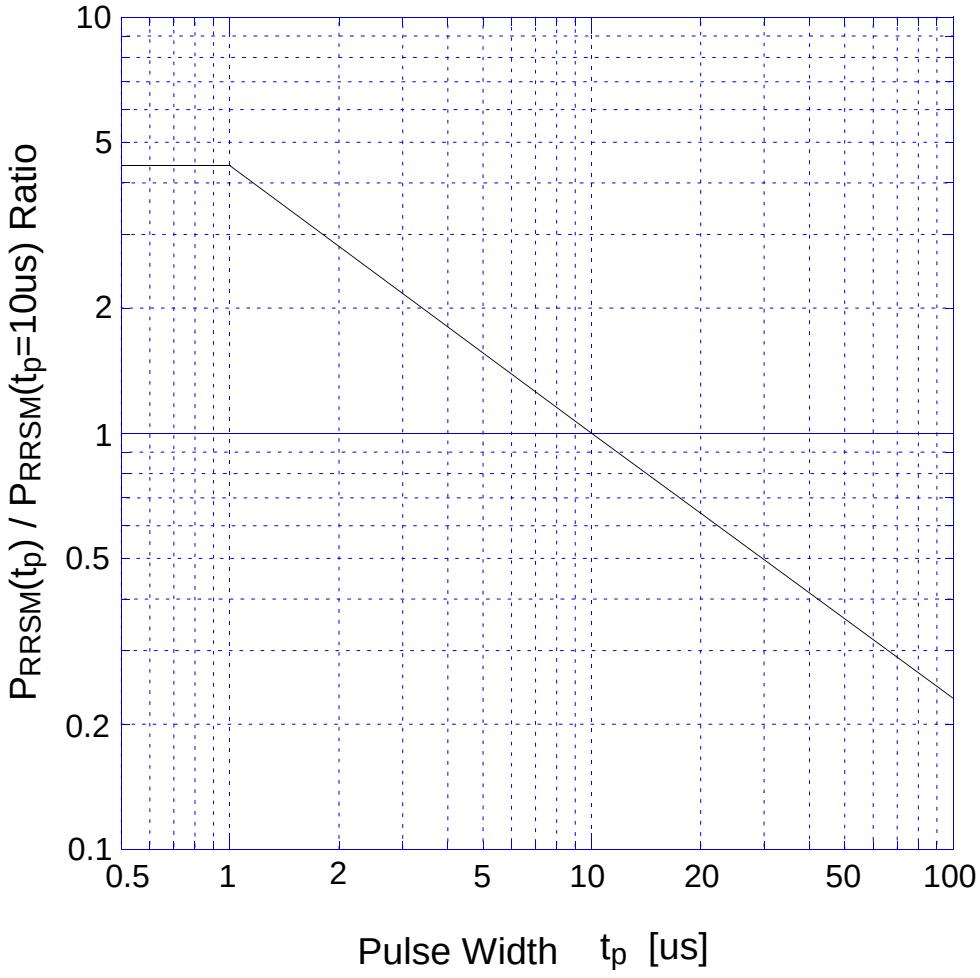
SF20SC6 Derating Curve

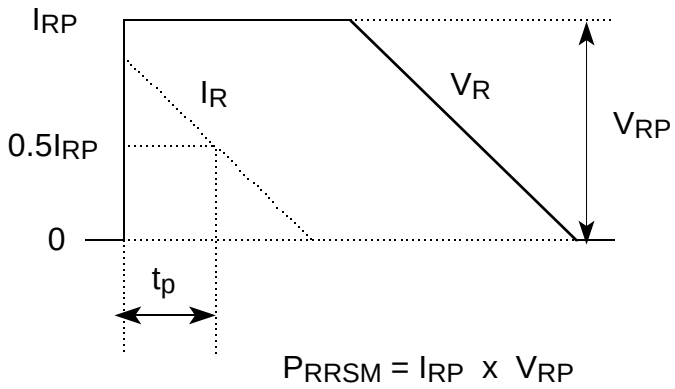


V_R = 30V



SF20SC6 Repetitive Surge Reverse Power Capability





SF20SC6 Repetitive Surge Reverse Power Derating Curve