

SHINDENGEN

Schottky Barrier Diode

Twin Diode

SF20SC4

40V 20A

FEATURES

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

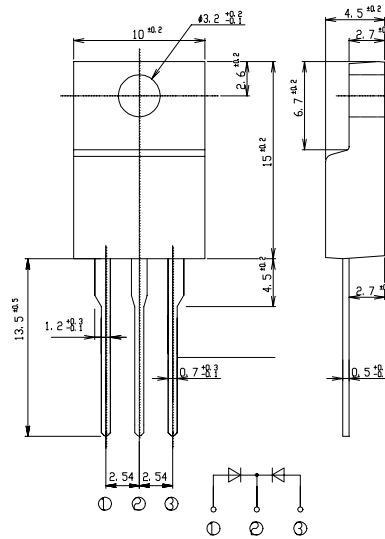
APPLICATION

- 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°C)

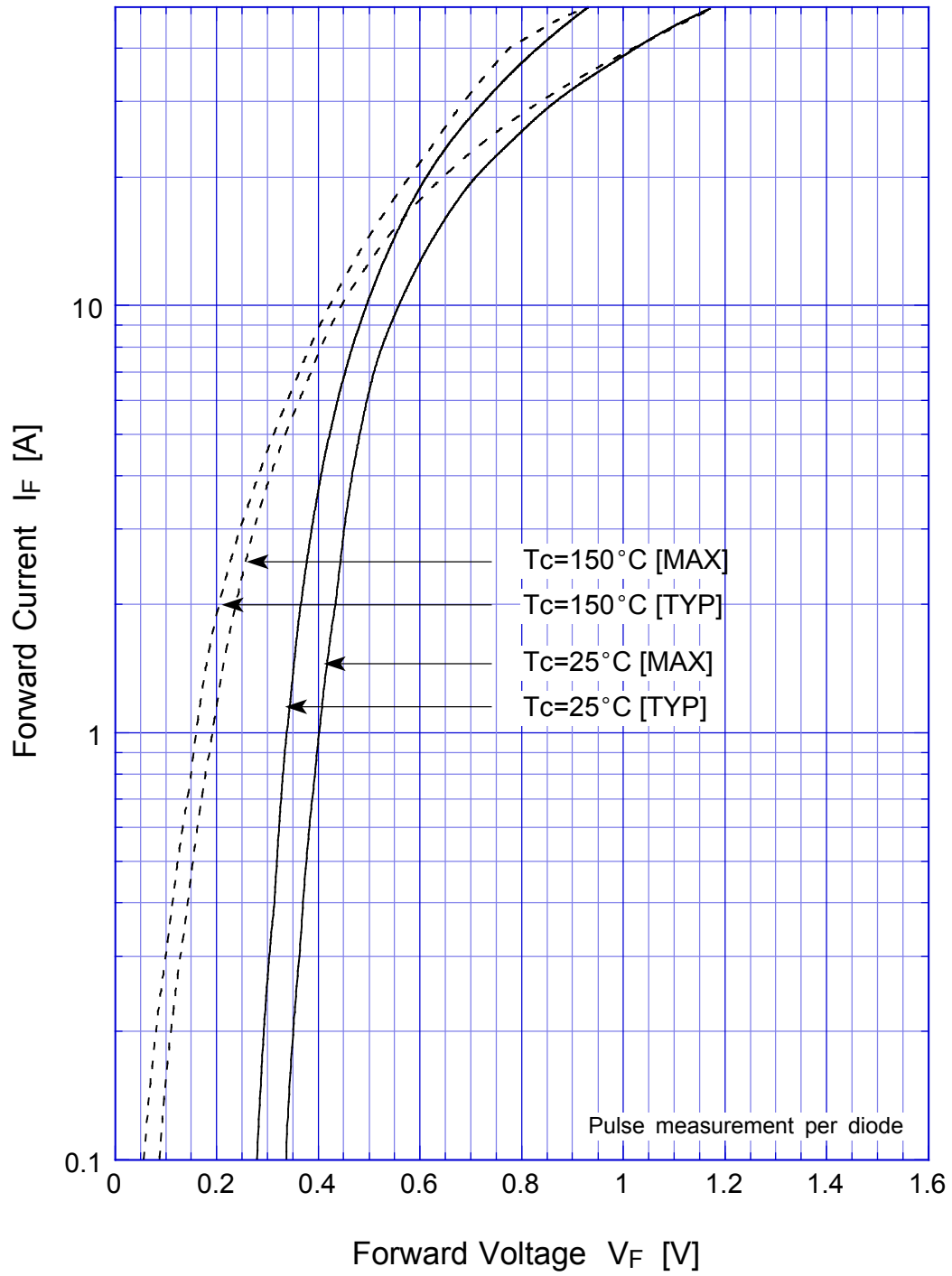
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55~150	°C
Operating Junction Temperature	T _j		150	°C
Maximum Reverse Voltage	V _{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I _O	50Hz sine wave, R-load, Rating for each diode I _O /2, Tc=117°C	20	A
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Rating of per diode, Tj=25°C	230	A
Repetitive Peak Surge Reverse Power	P _{RRSM}	Pulse width 10 μs, Rating of per diode, Tj=25°C	660	W
Dielectric Strength	V _{dis}	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°C)

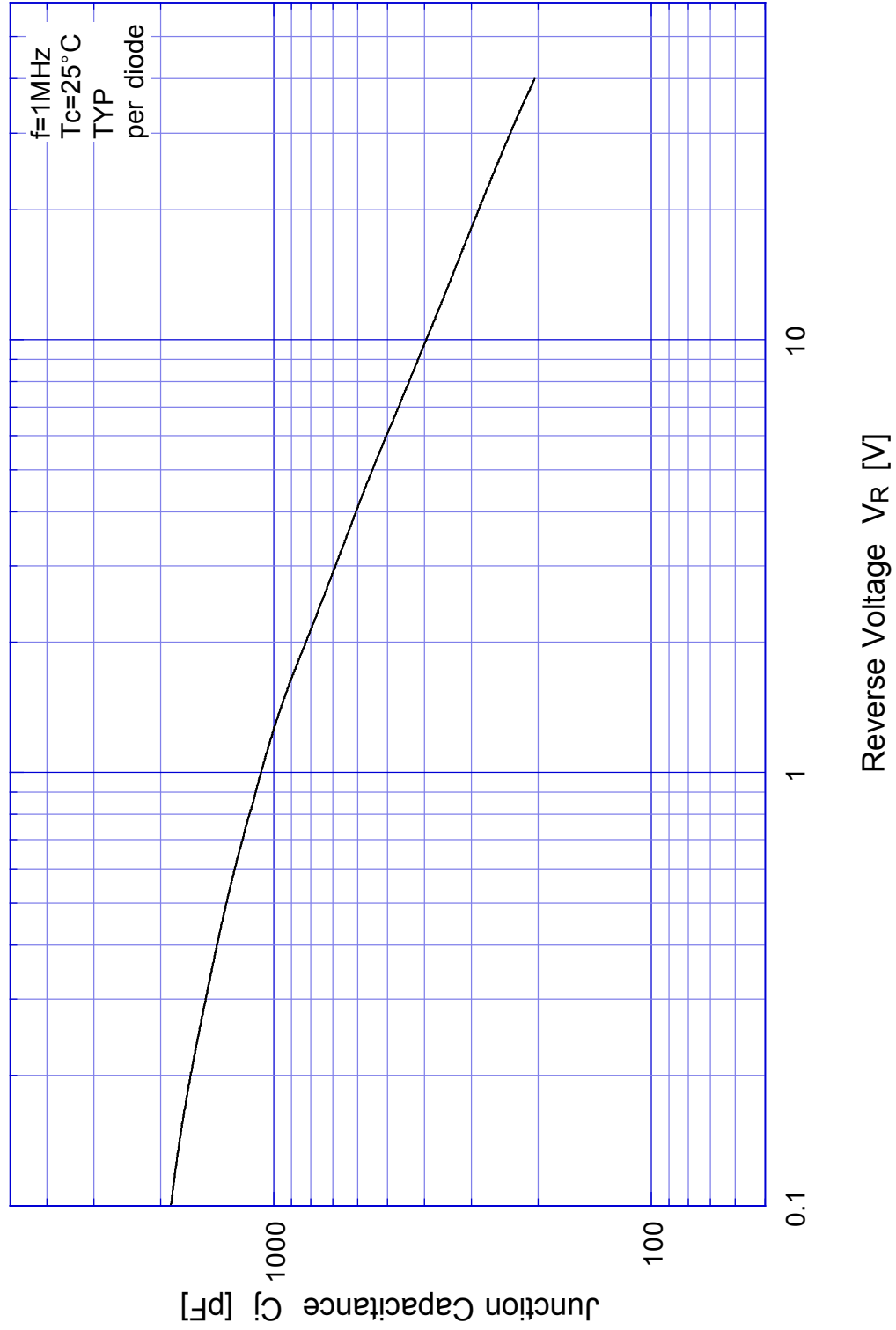
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F =10A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I _R	V _R =V _{RM} , Pulse measurement, Rating of per diode	Max.7.5	mA
Junction Capacitance	C _j	f=1MHz, V _R =10V, Rating of per diode	Typ.390	pF
Thermal Resistance	θ _{jc}	junction to case	Max.2.0	°C/W

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Forward Voltage

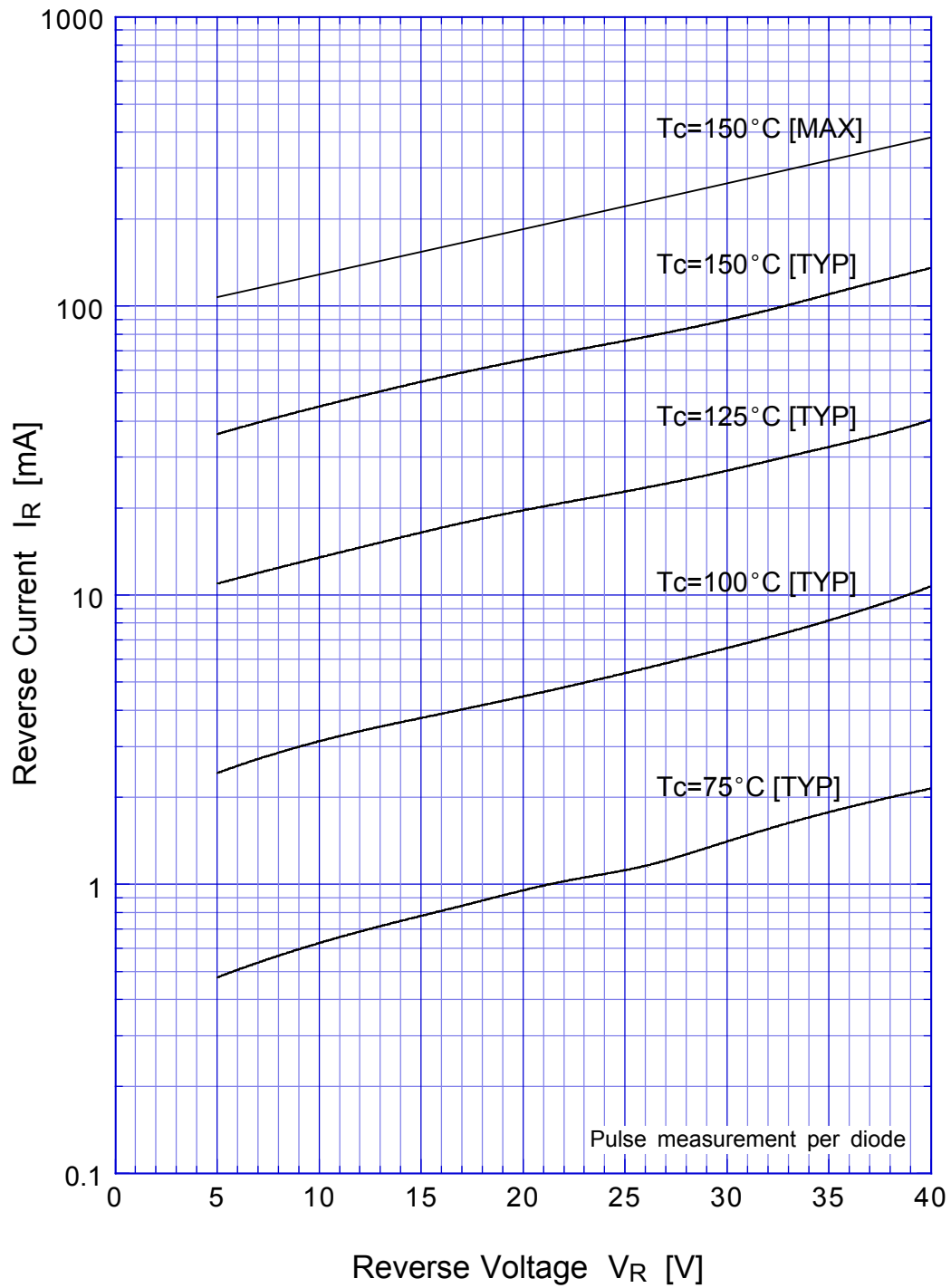


SF20SC4 Junction Capacitance

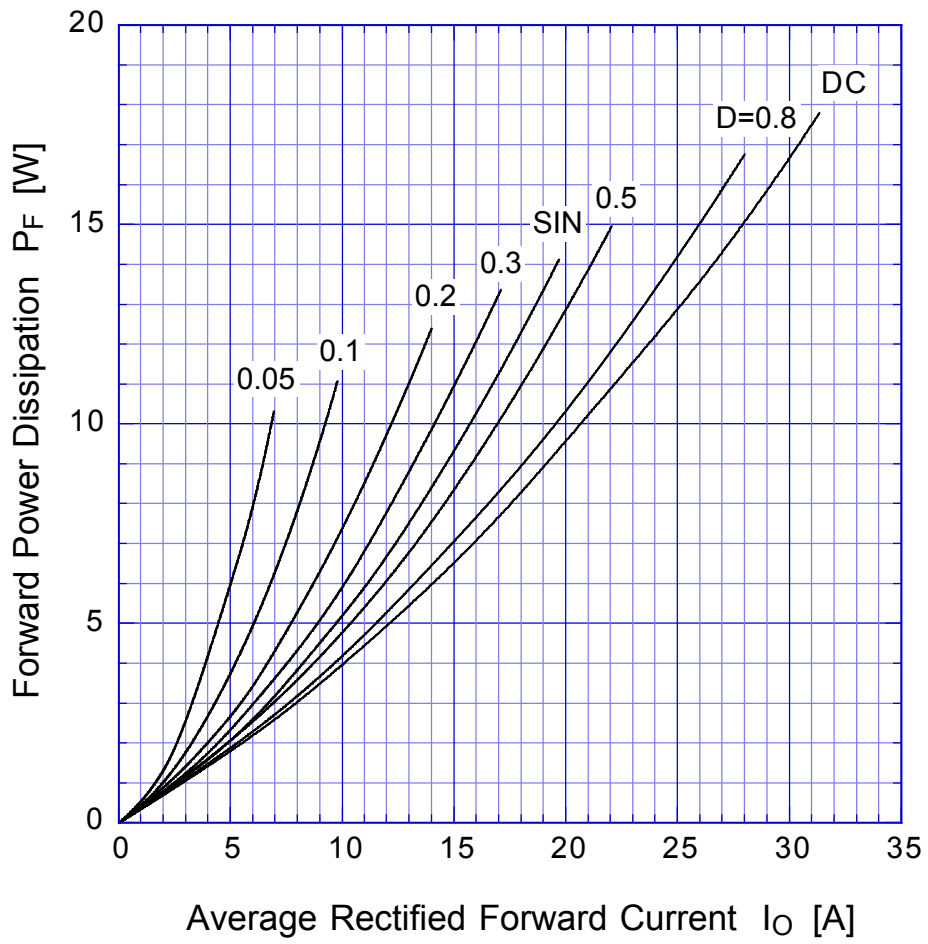


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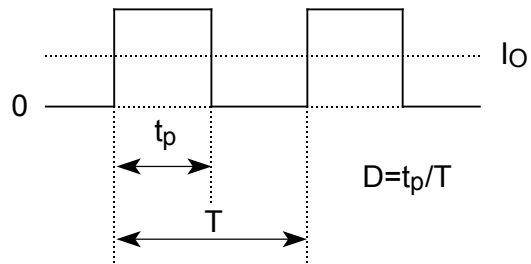
Reverse Current



SF20SC4 Forward Power Dissipation

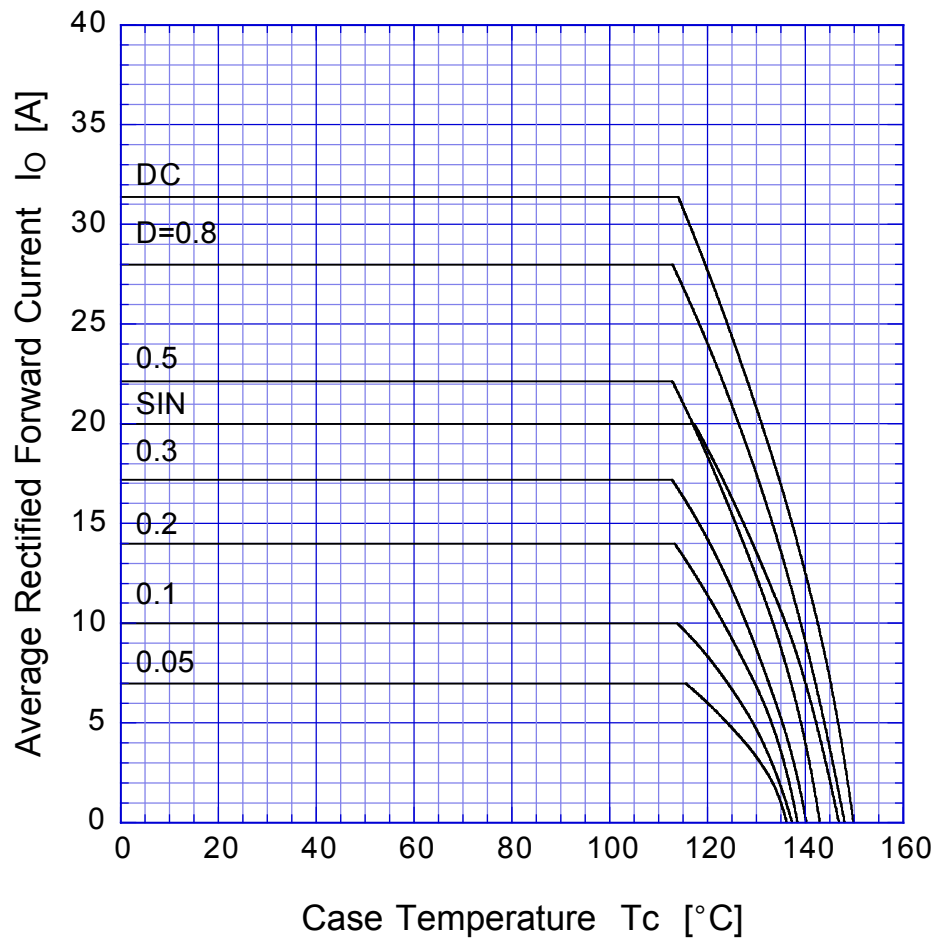


$T_j = 150^\circ\text{C}$

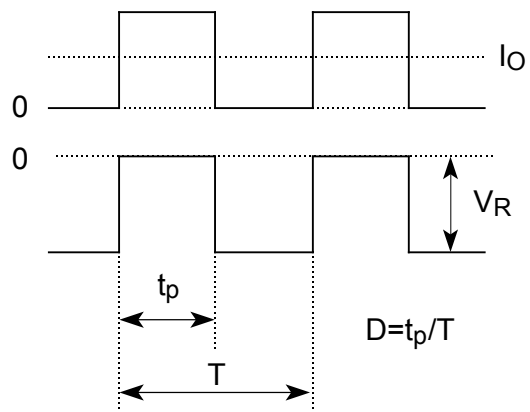


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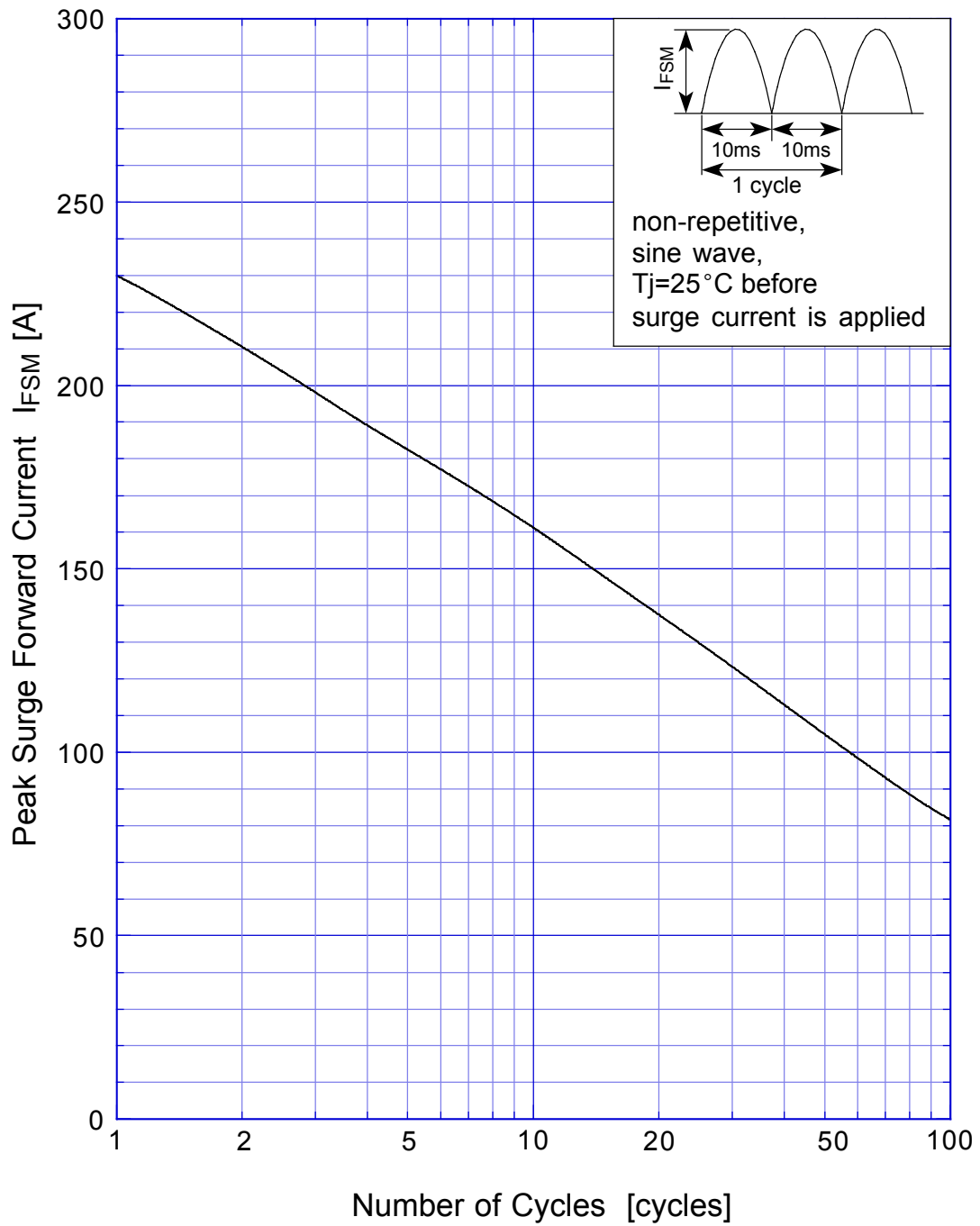
Derating Curve



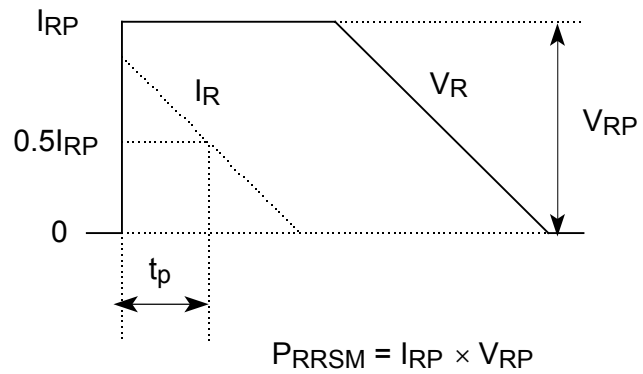
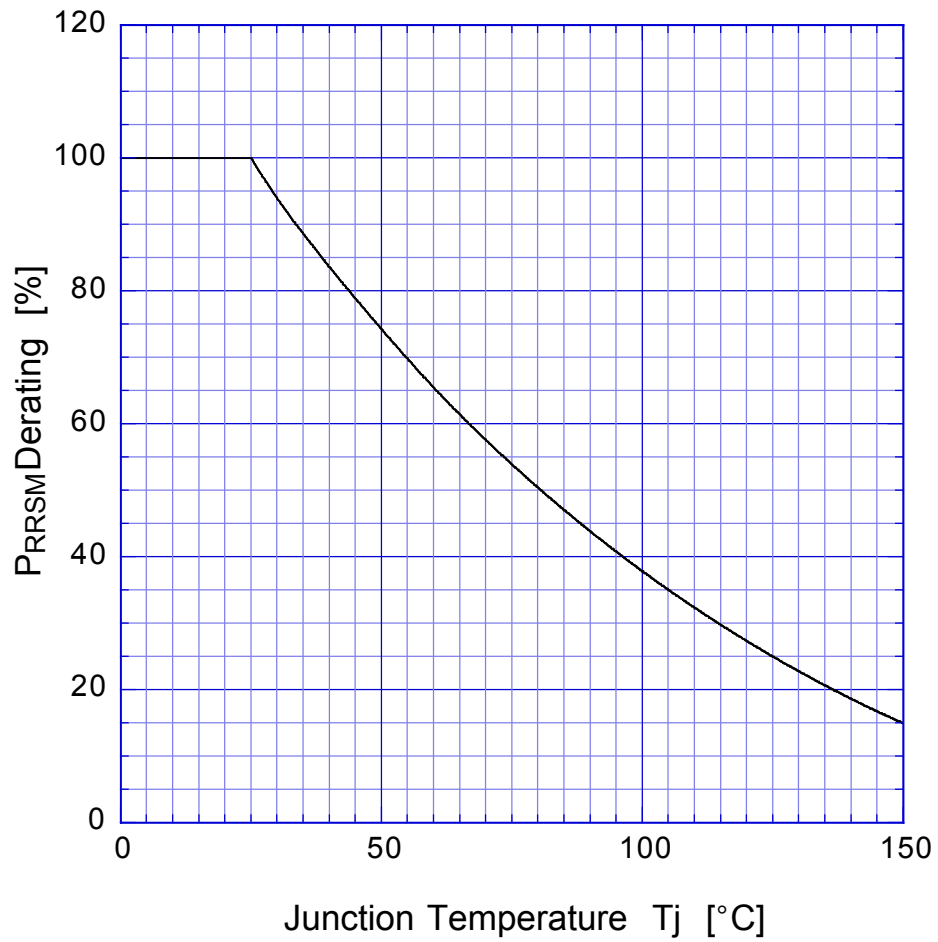
$V_R = 20V$



SF20SC4 Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

