

SF20SC3L

30V 20A

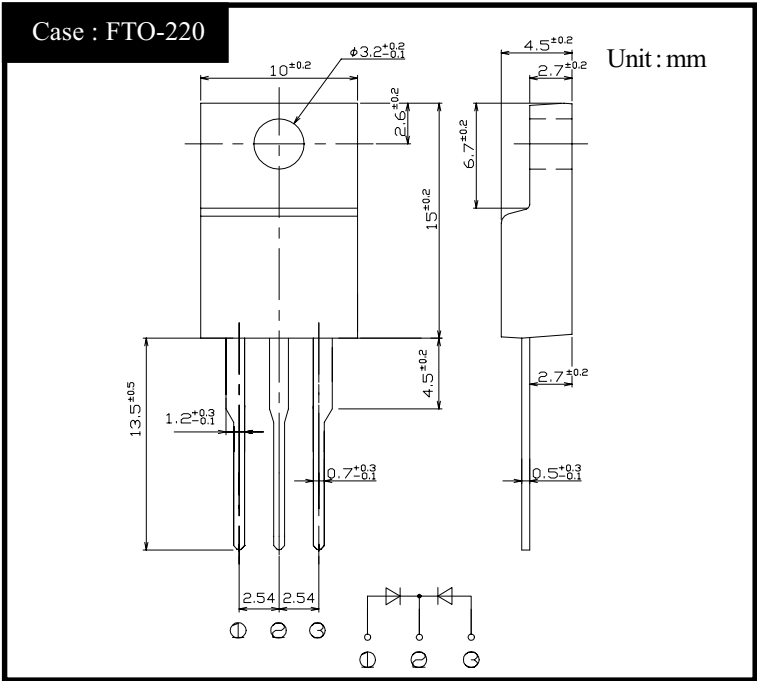
FEATURES

- Tj150℃
- Low VF= 0.45V
- PRRSM avalanche guaranteed
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

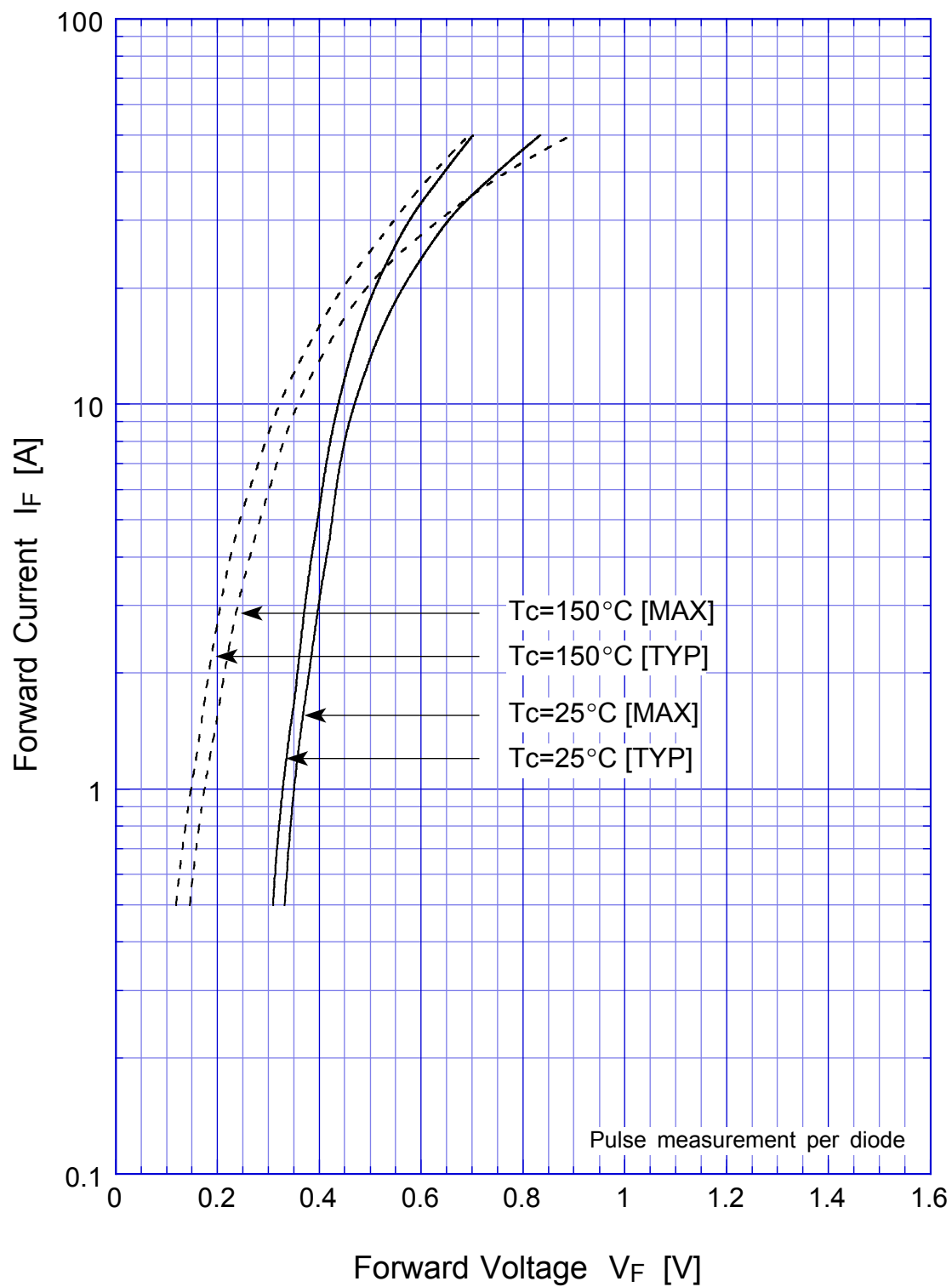
● Absolute Maximum Ratings (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55~150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	VRM		30	V
Repetitive Peak Surge Reverse Voltage	VRSM	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	IO	50Hz sine wave, R-load, With heatsink, Rating for each diode IO/2, Tc=125℃	20	A
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	230	A
Repetitive Peak Surge Reverse Power	PRSM	Pulse width 10 μs, 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

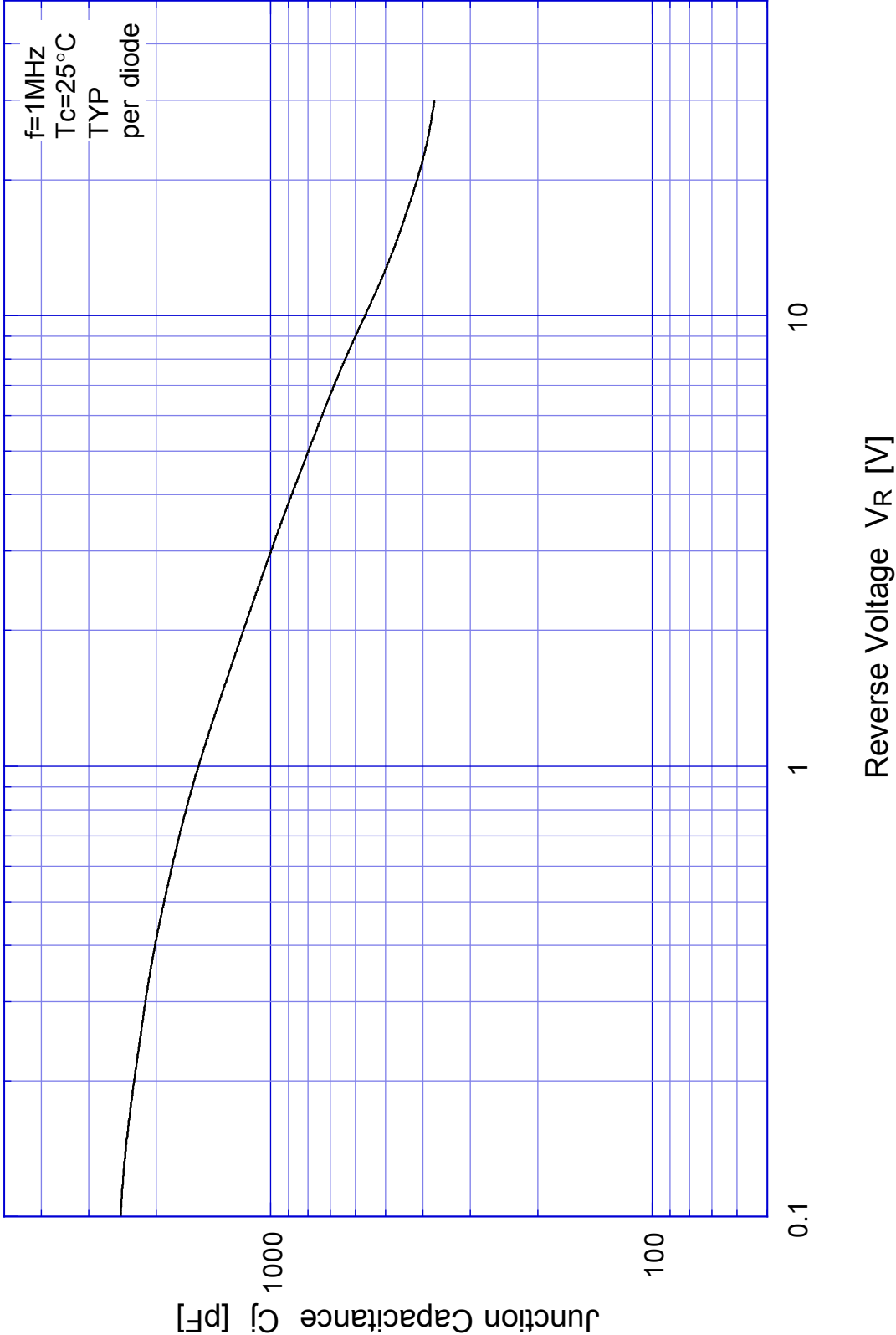
● Electrical Characteristics (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=8A, Pulse measurement, Rating of per diode	Max.0.45	V
Reverse Current	IR	VR=VRM, Pulse measurement, Rating of per diode	Max.9	mA
Junction Capacitance	Cj	f=1MHz, VR=10V, Rating of per diode	Typ.570	pF
Thermal Resistance	θjc	junction to case	Max.2.0	℃/W

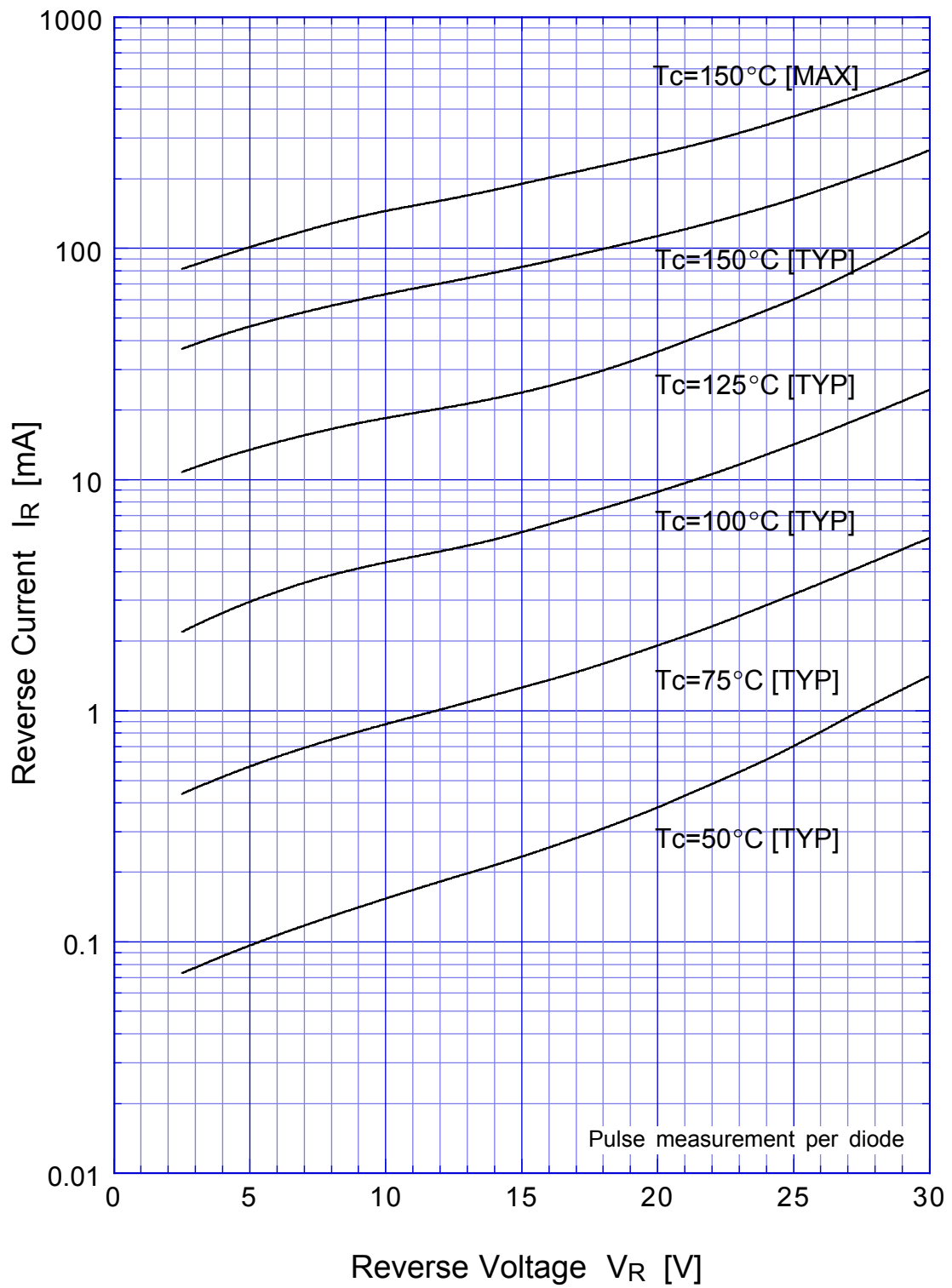
SF20SC3L Forward Voltage



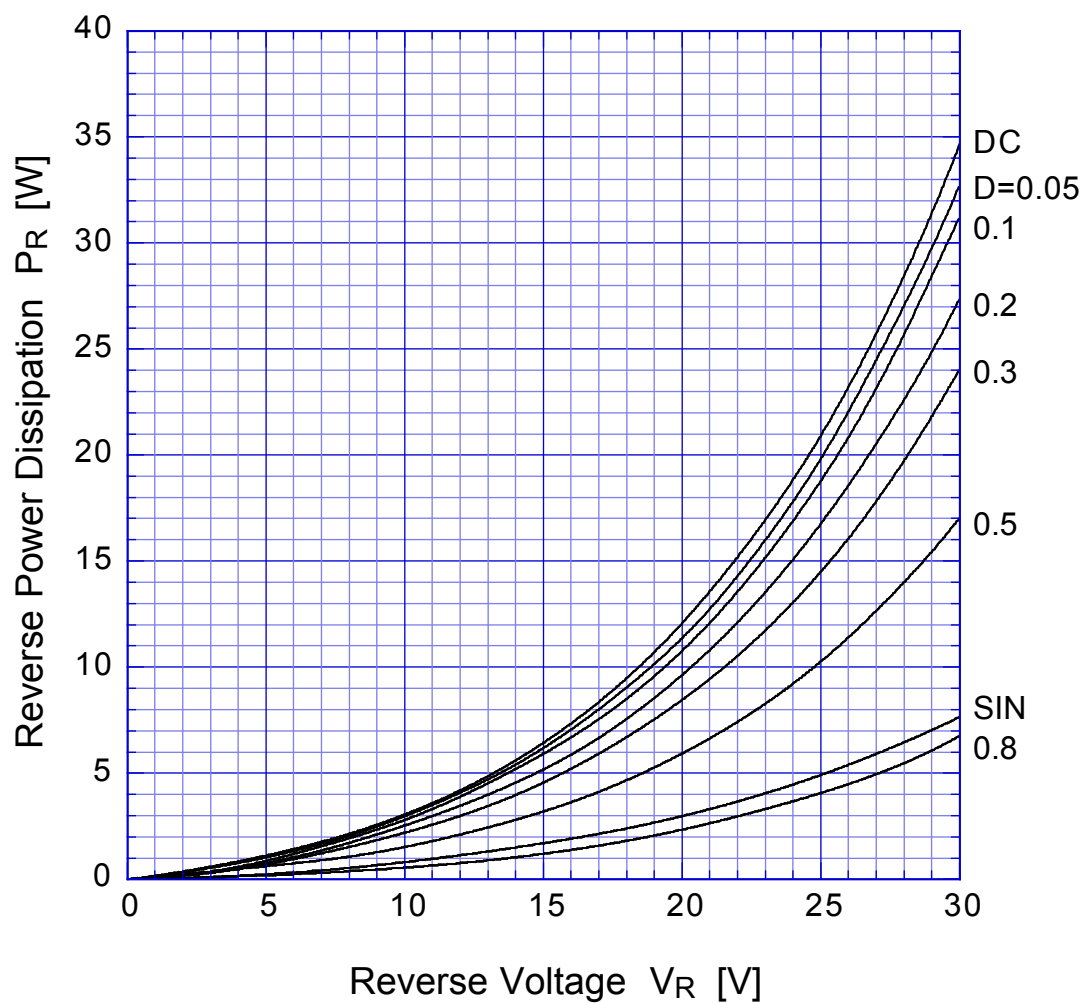
SF20SC3L Junction Capacitance



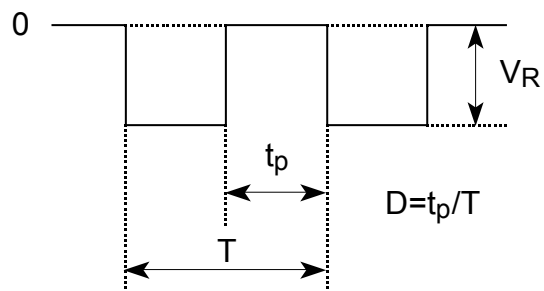
SF20SC3L Reverse Current



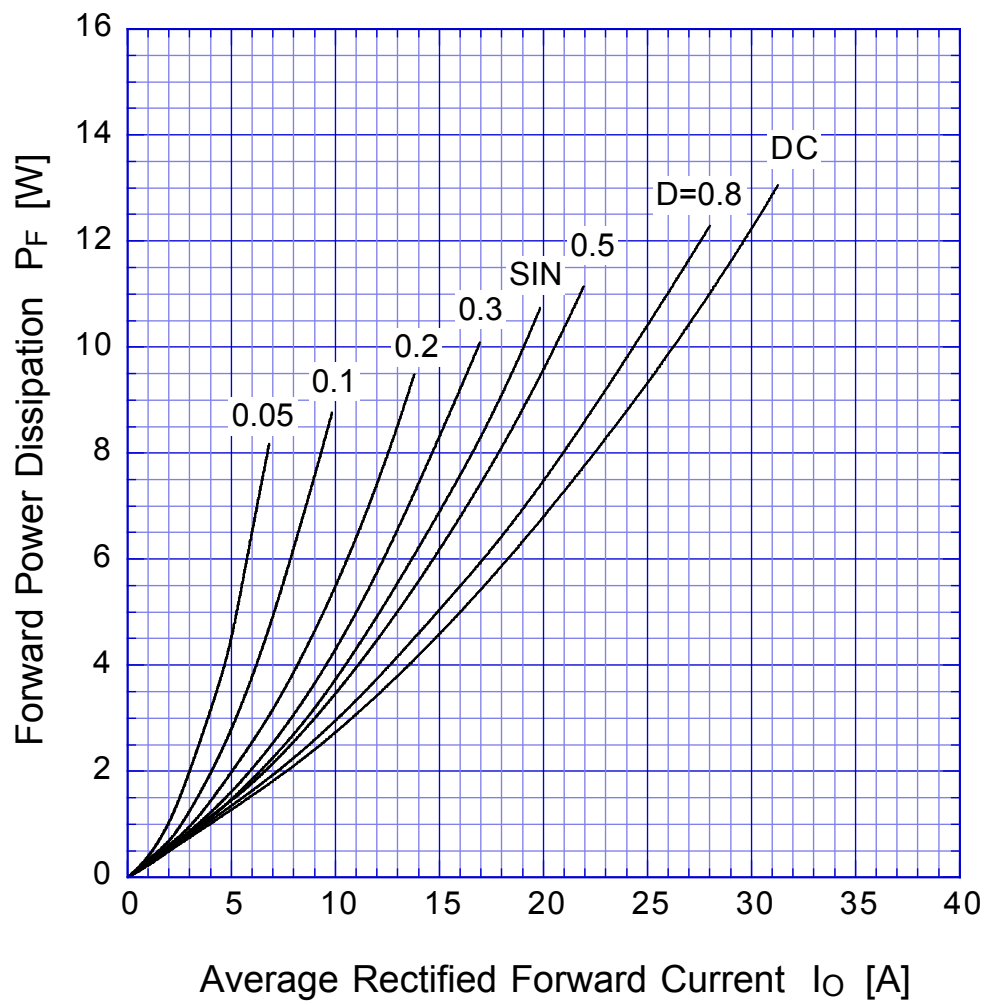
SF20SC3L Reverse Power Dissipation



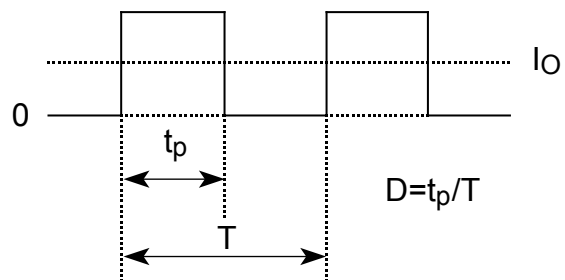
$T_j = T_{jmax}$



SF20SC3L Forward Power Dissipation

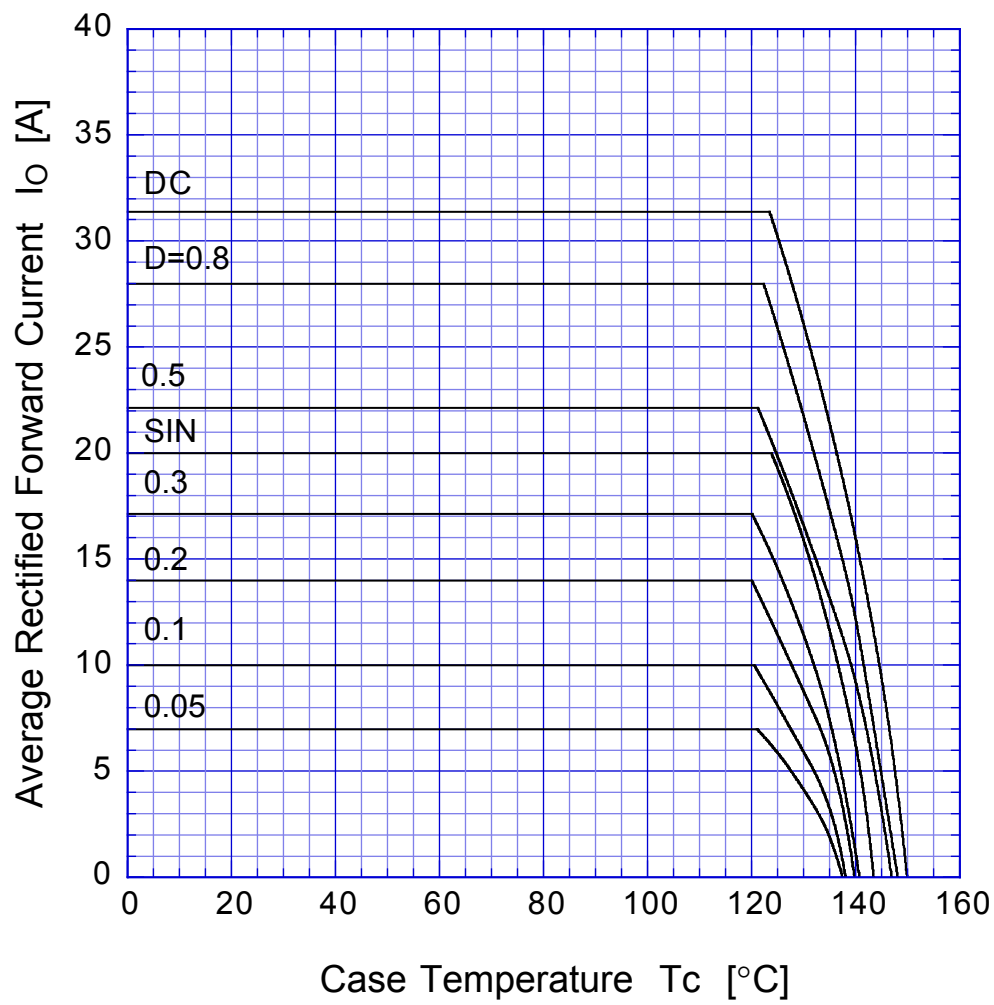


$T_j = T_{jmax}$

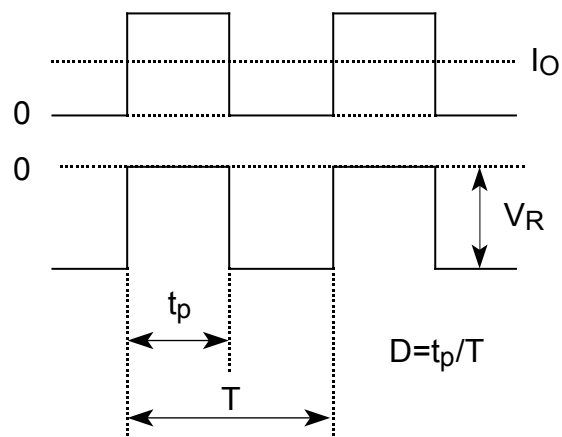


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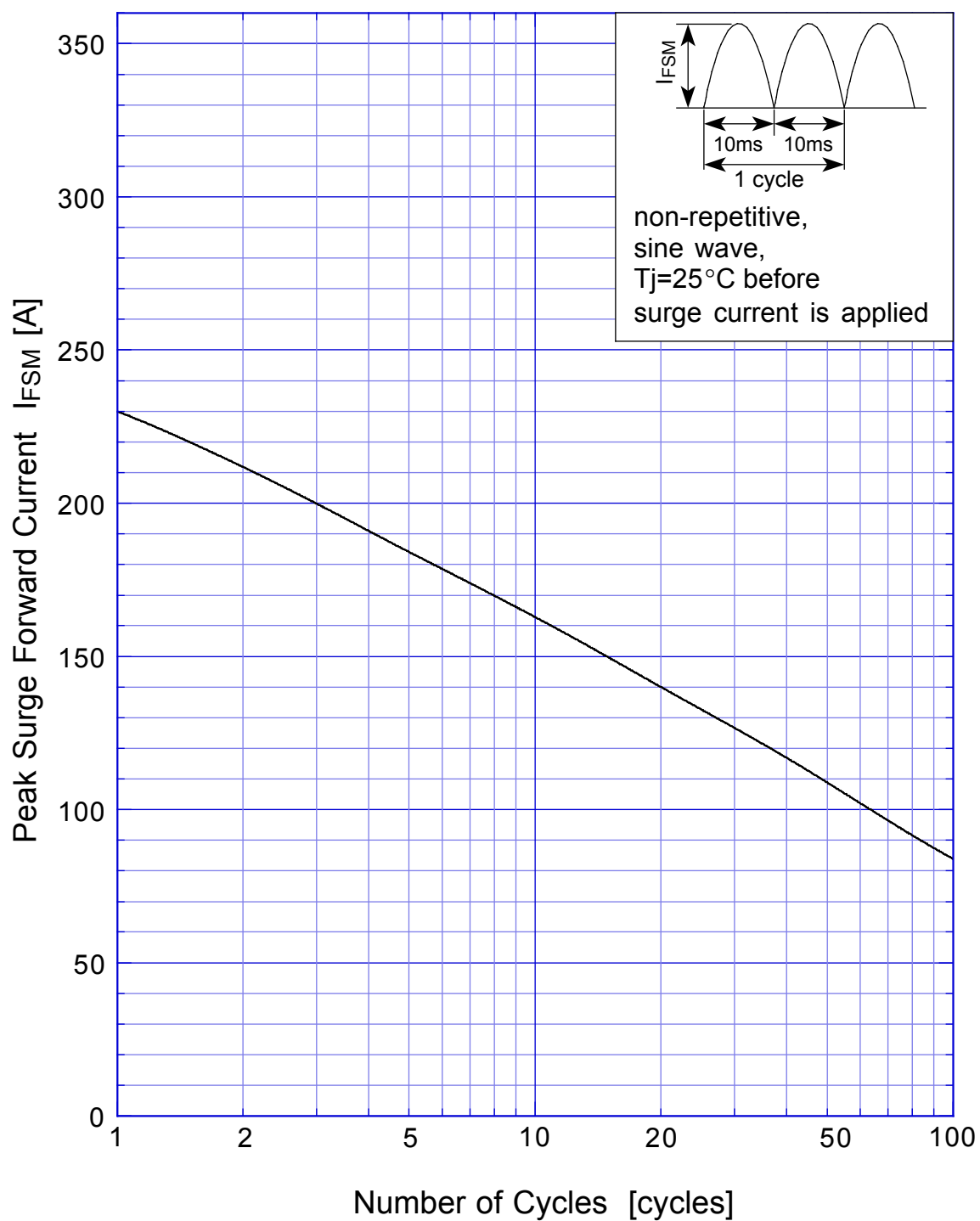
Derating Curve



$$V_R = V_{RM}/2$$



SF20SC3L Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

