

DF30SC3ML

30V 30A

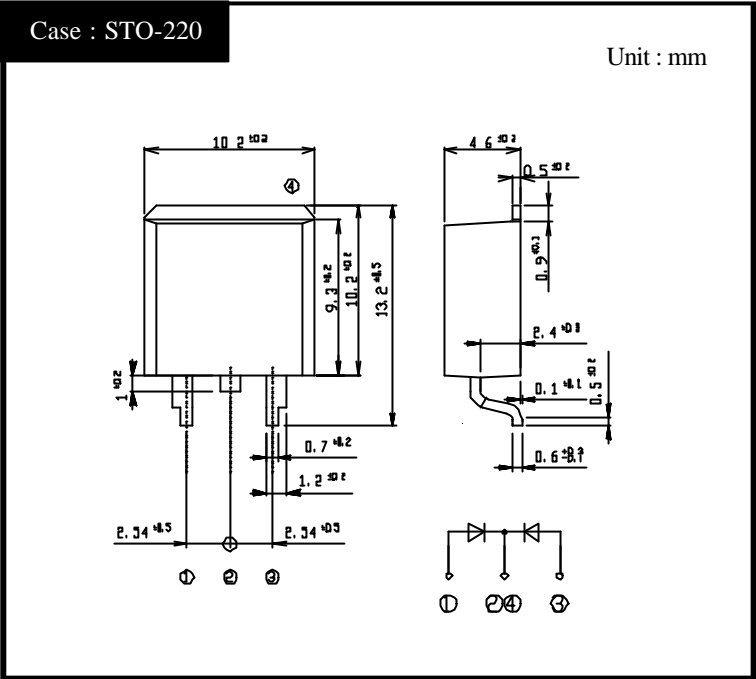
FEATURES

- SMT
- Tj150
- Low VF=0.45V
- PRRSM avalanche guaranteed
- High current capacity with Small Package

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

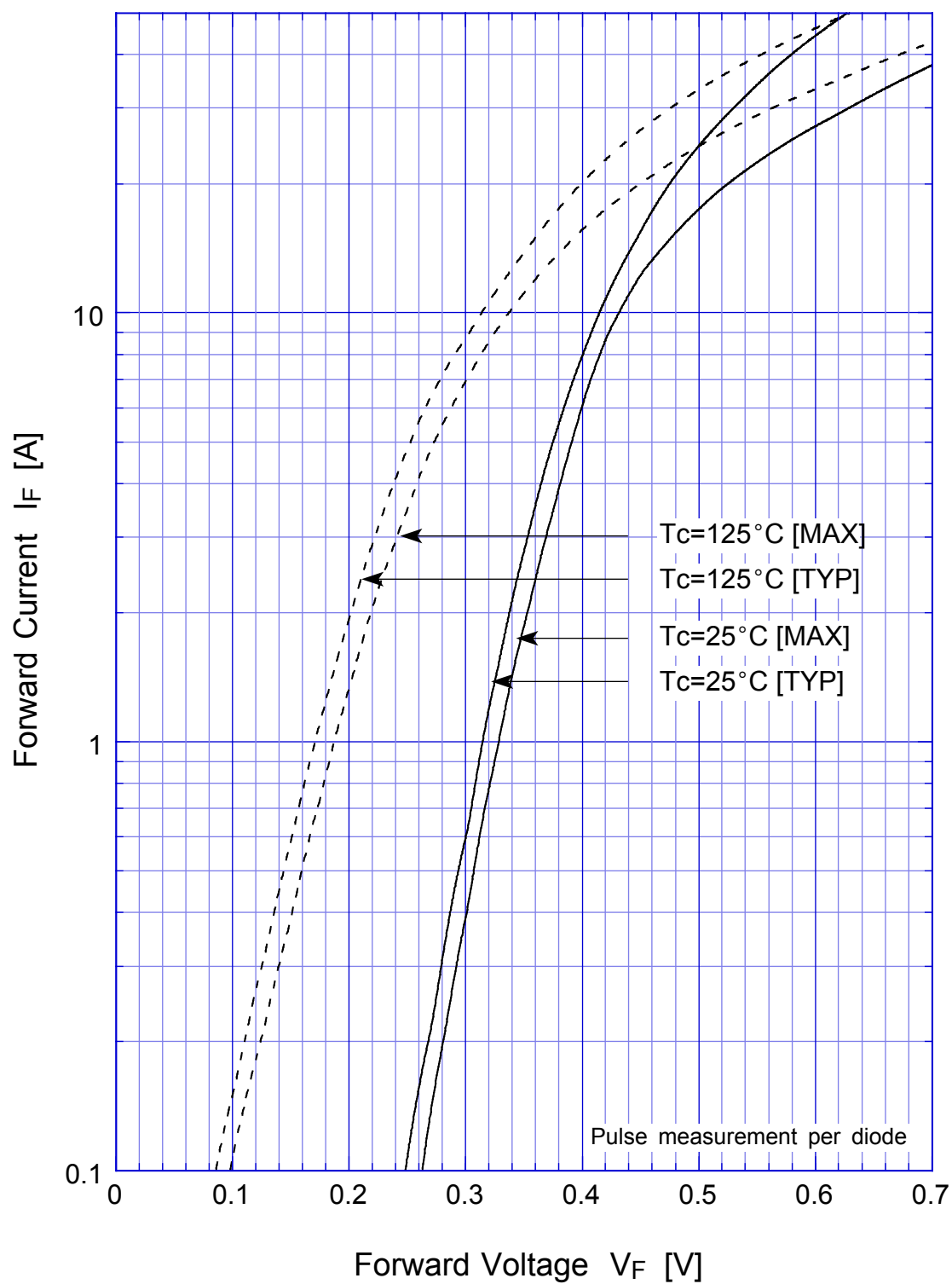
Absolute Maximum Ratings (If not specified Tc=25)

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	VRRSM	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Rating for each diode Io/2, Tc=119	30	A
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25	350	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10 μs, Rating of per diode, Tj=25	1000	W

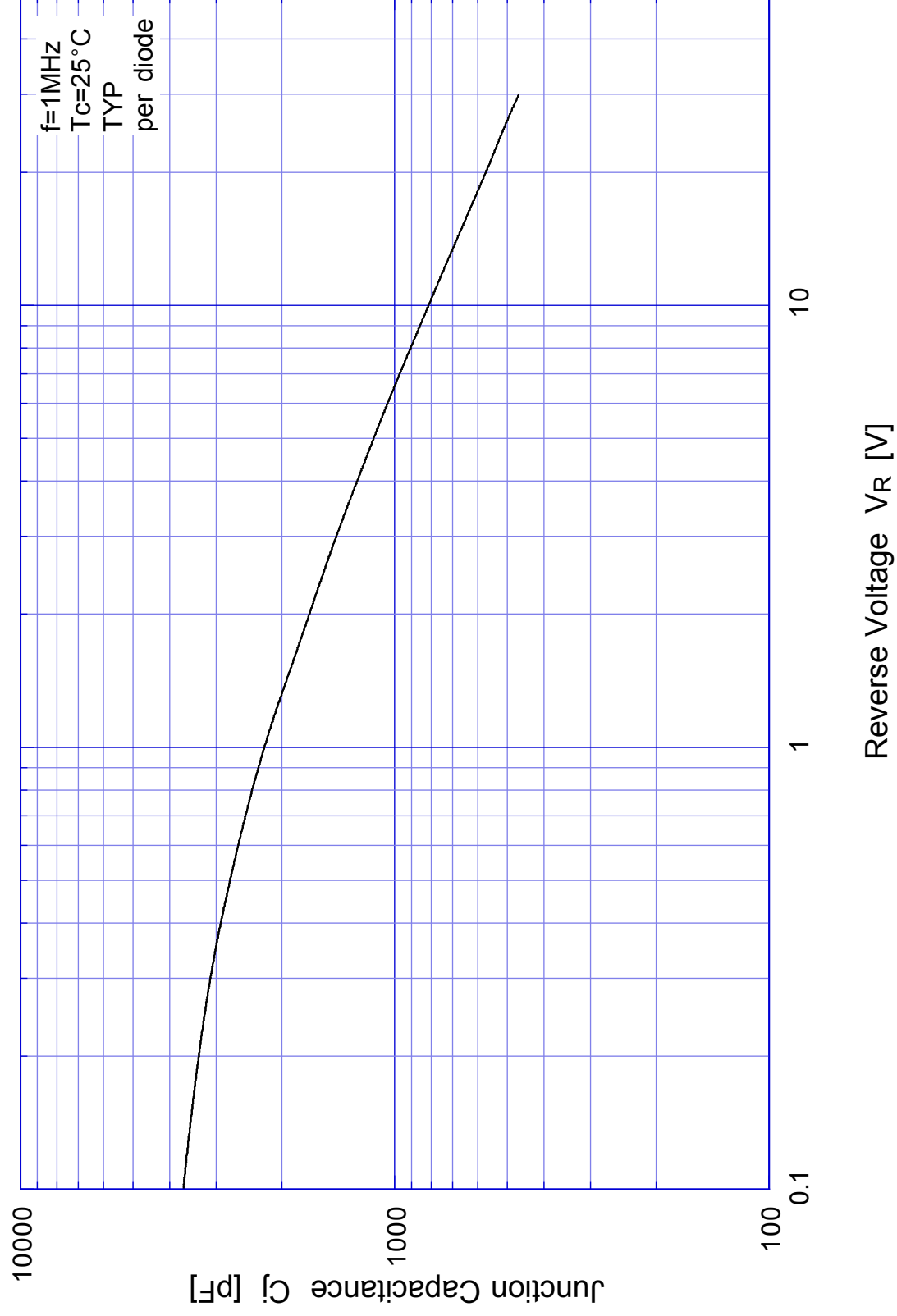
Electrical Characteristics (If not specified Tc=25)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=12.5A, Pulse measurement, Rating of per diode	Max.0.45	V
Reverse Current	IR	VR=VRM, Pulse measurement, Rating of per diode	Max.10	mA
Junction Capacitance	Cj	f=1MHz, VR=10V, Rating of per diode	Typ.820	pF
Thermal Resistance	jc	junction to case	Max.1.6	/W

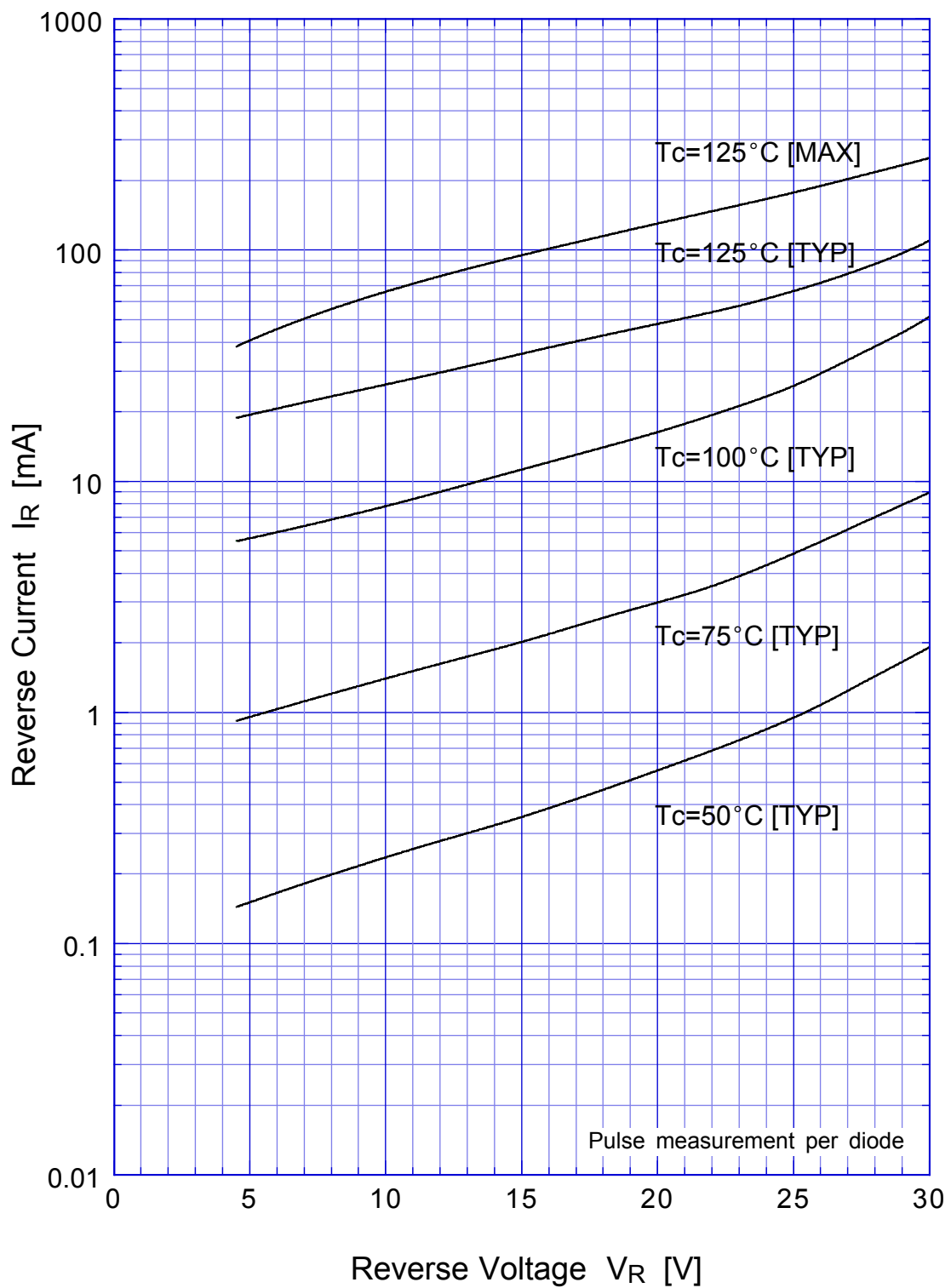
DF30SC3ML Forward Voltage



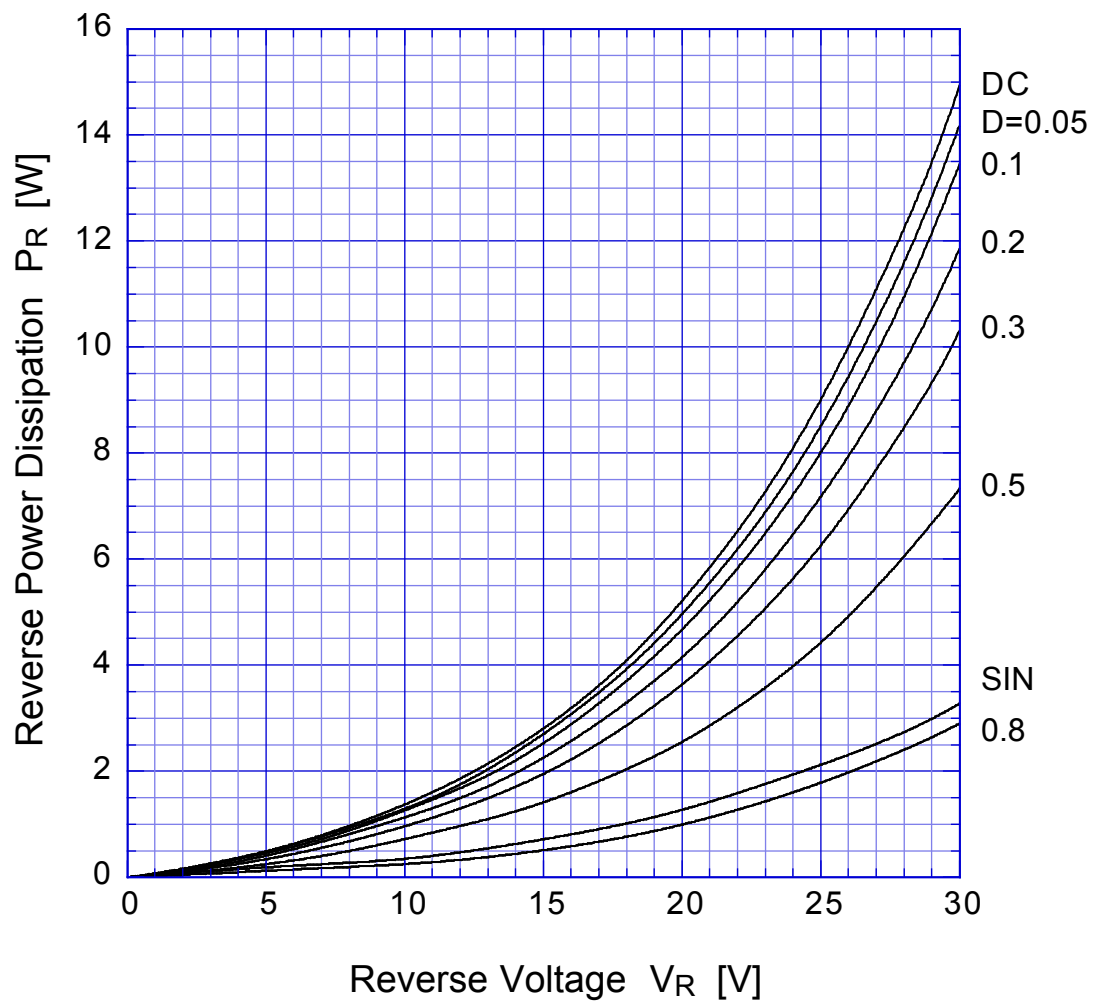
DF30SC3ML Junction Capacitance



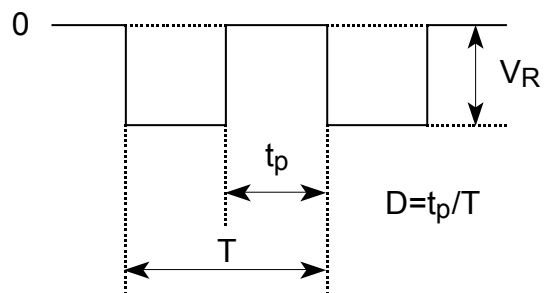
DF30SC3ML Reverse Current



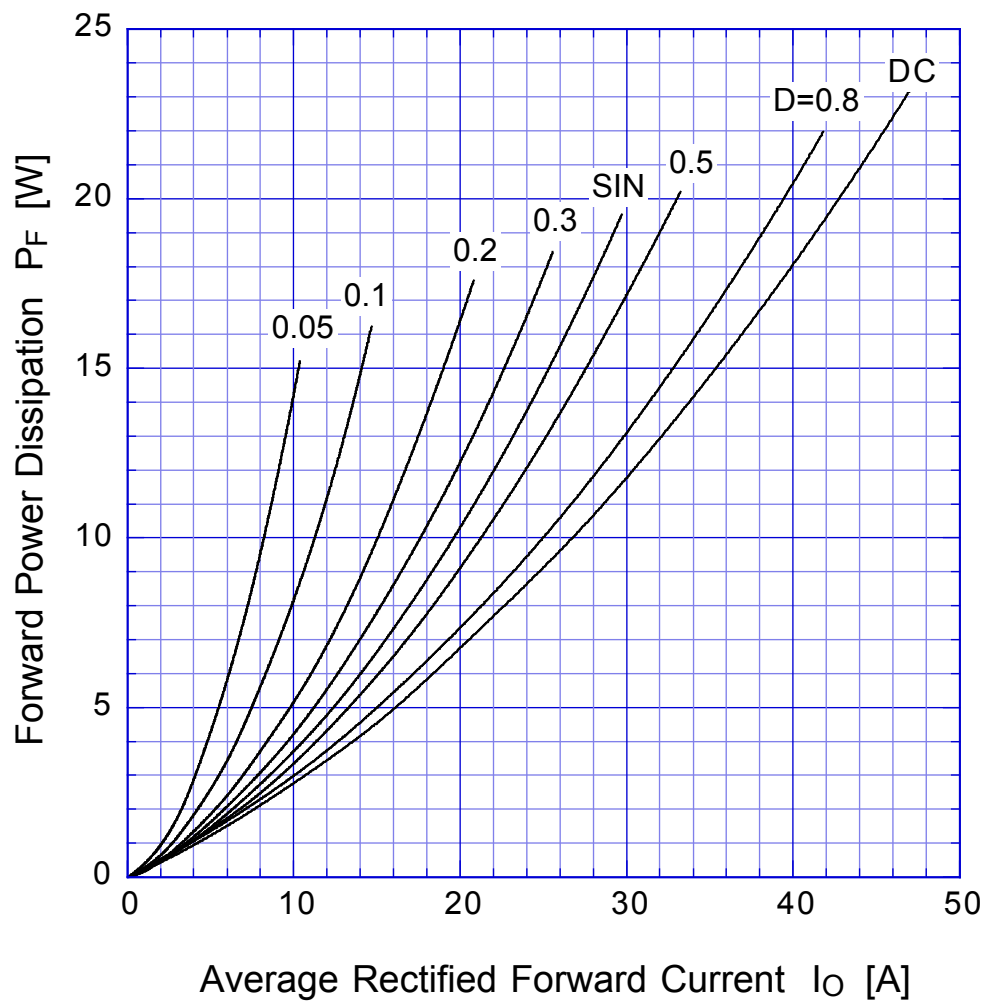
DF30SC3ML Reverse Power Dissipation



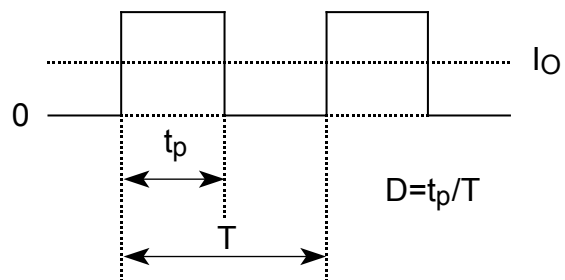
$T_j = T_{jmax}$



DF30SC3ML Forward Power Dissipation

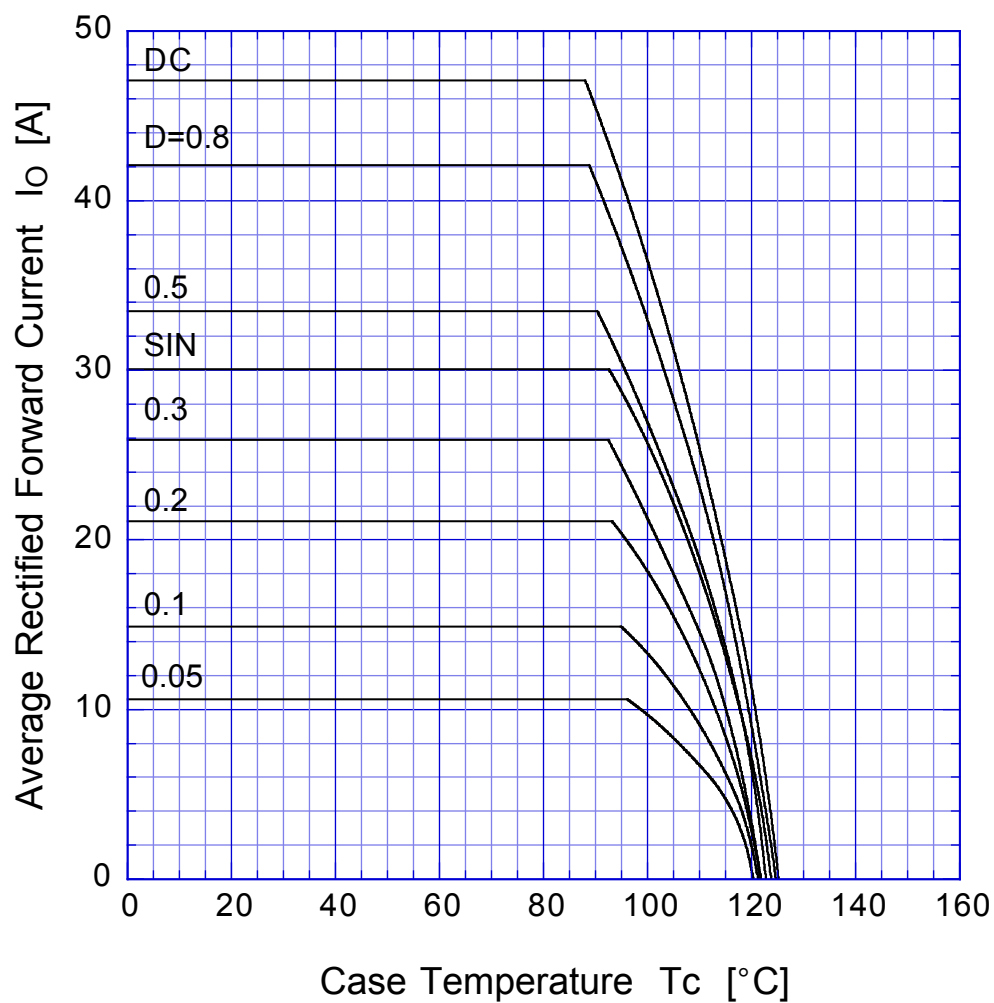


$T_j = T_{jmax}$

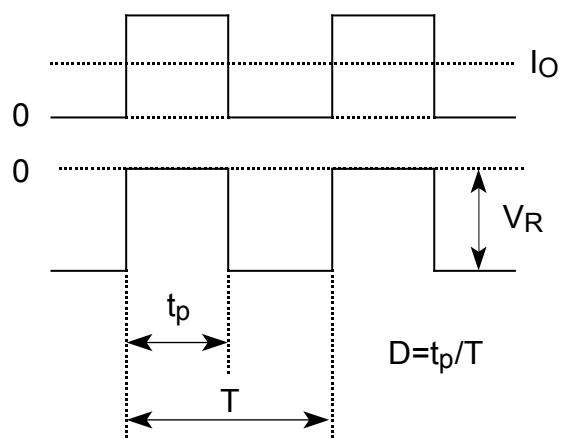


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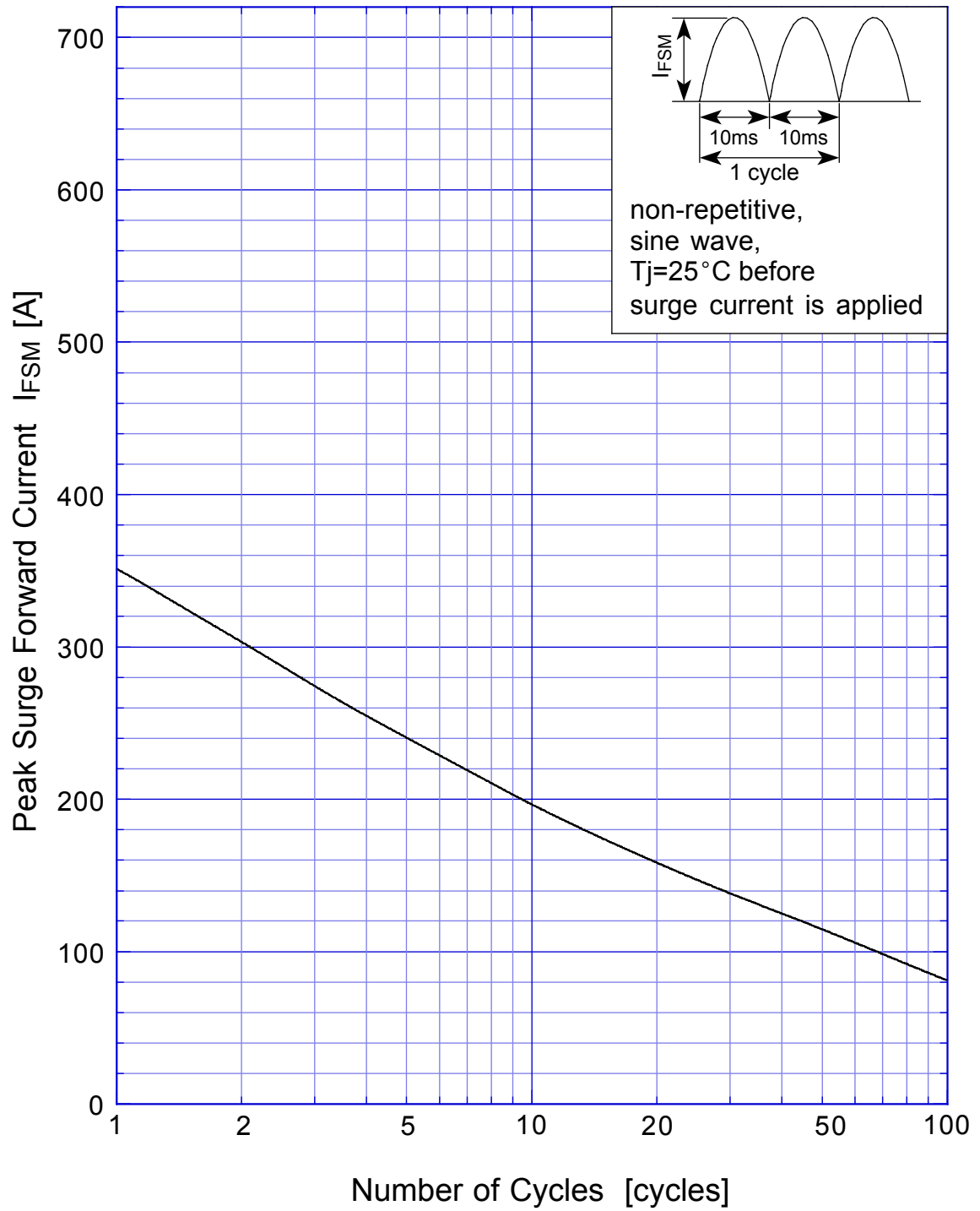
Derating Curve



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



DF30SC3ML Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

