

S30SC4M

40V 30A

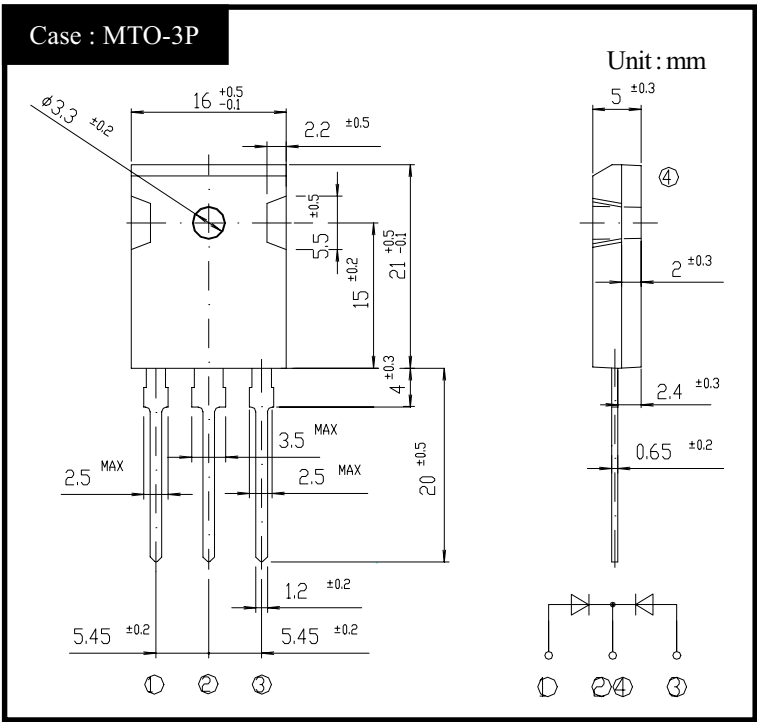
FEATURES

- Tj150°C
- PRRSM avalanche guaranteed
- Small θ_{jc}
- High current capacity

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

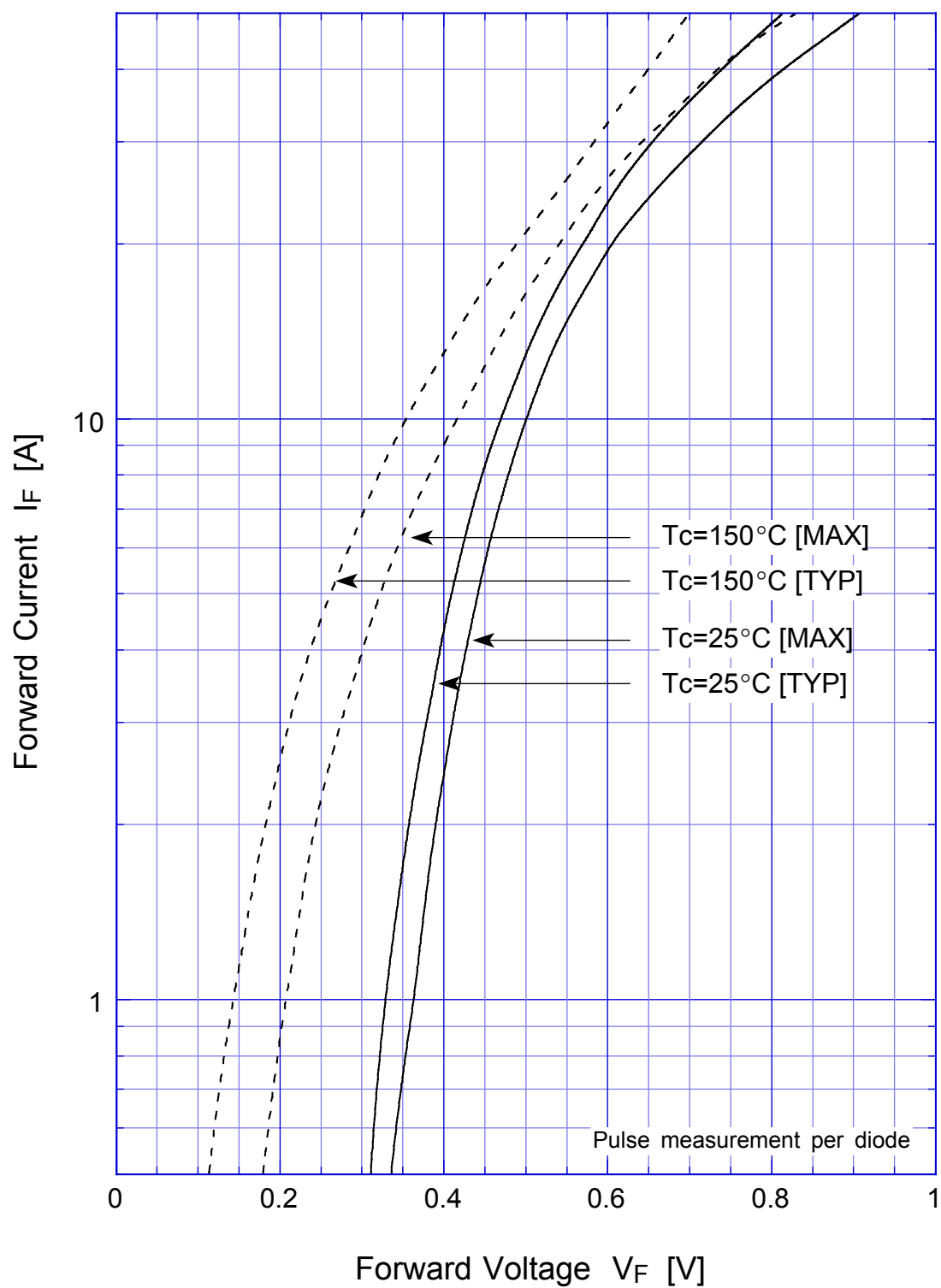
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	VRM		40	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	IO	50Hz sine wave, R-load, Rating for each diode IO/2, Tc=126°C	30	A
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125°C	300	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10 μs, Rating of per diode, Tj=25°C	1000	W
Mounting Torque	TOR	(Recommended torque:0.5N·m)	0.8	N·m

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

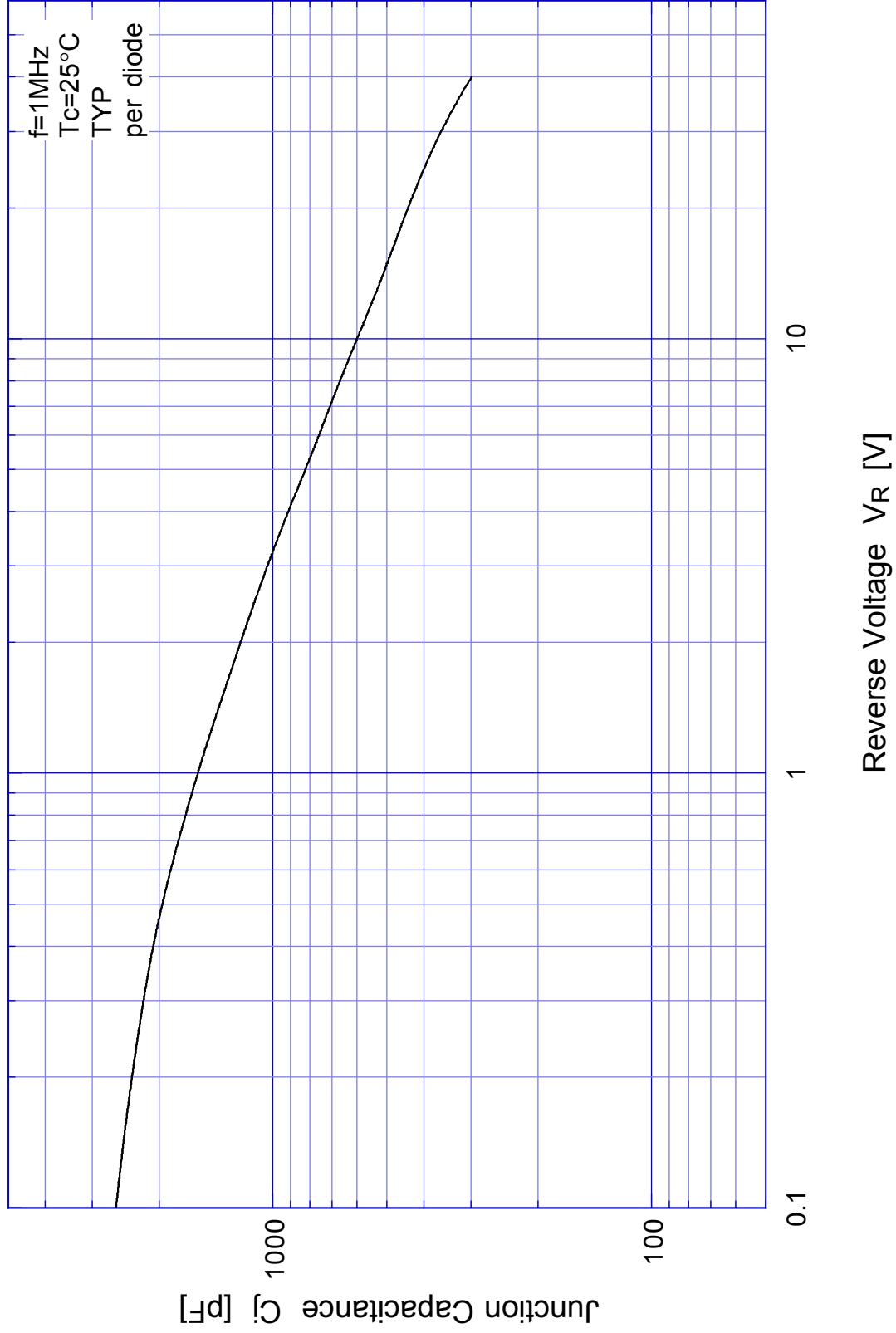
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=15A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	IR	VR=VRM, Pulse measurement, Rating of per diode	Max.10	mA
Junction Capacitance	Cj	f=1MHz, VR=10V, Rating of per diode	Typ.590	pF
Thermal Resistance	θ_{jc}	junction to case	Max.1.0	°C/W

S30SC4M

Forward Voltage

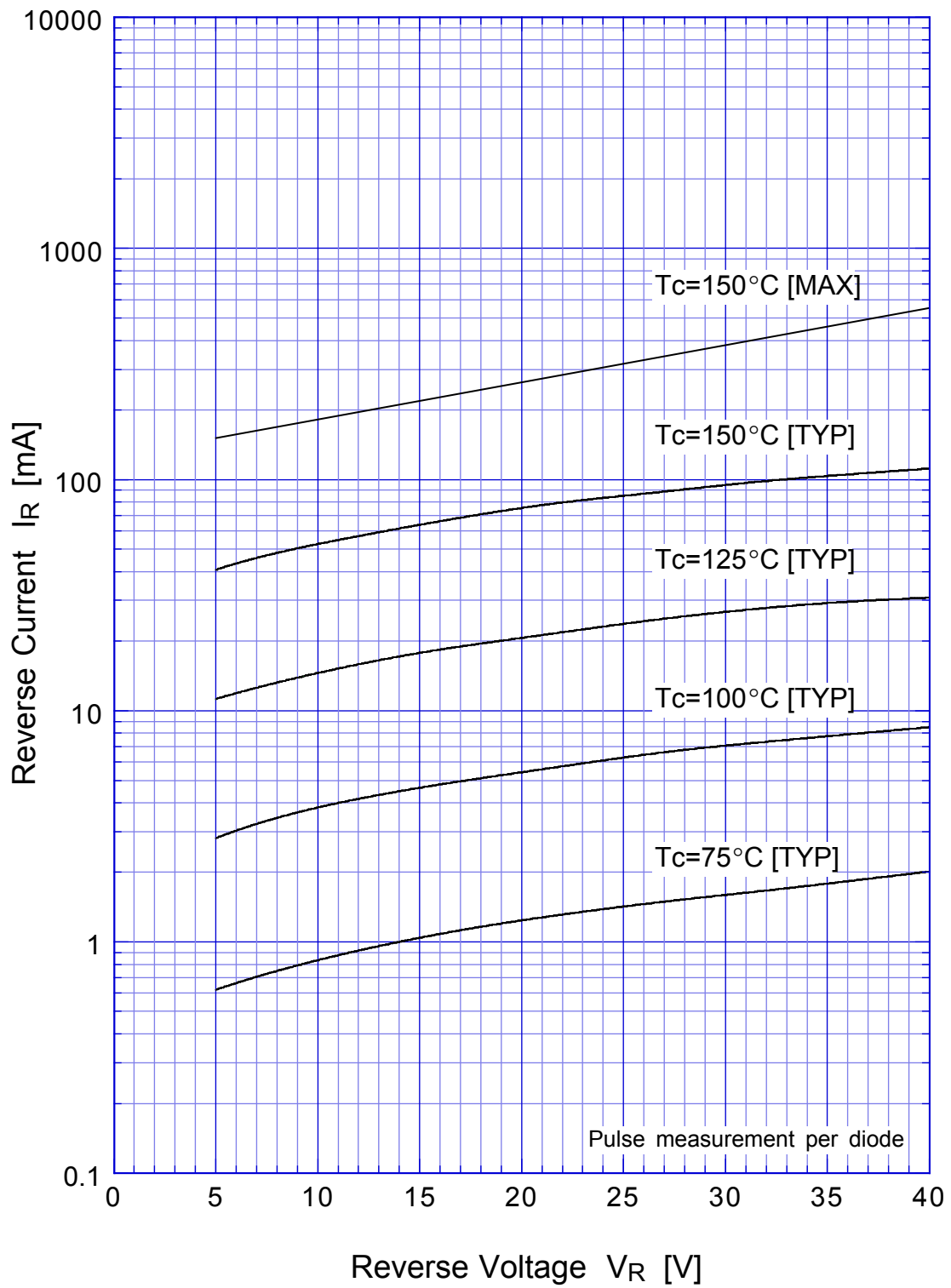


S30SC4M Junction Capacitance

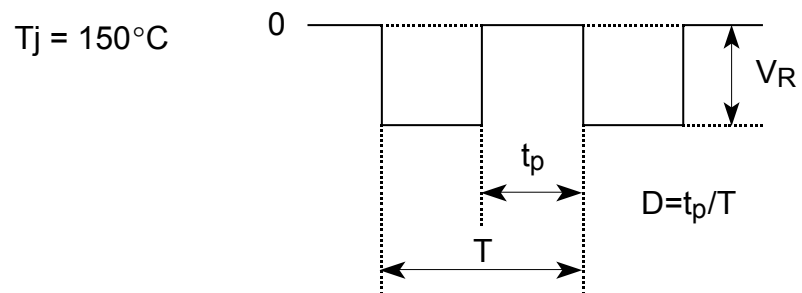
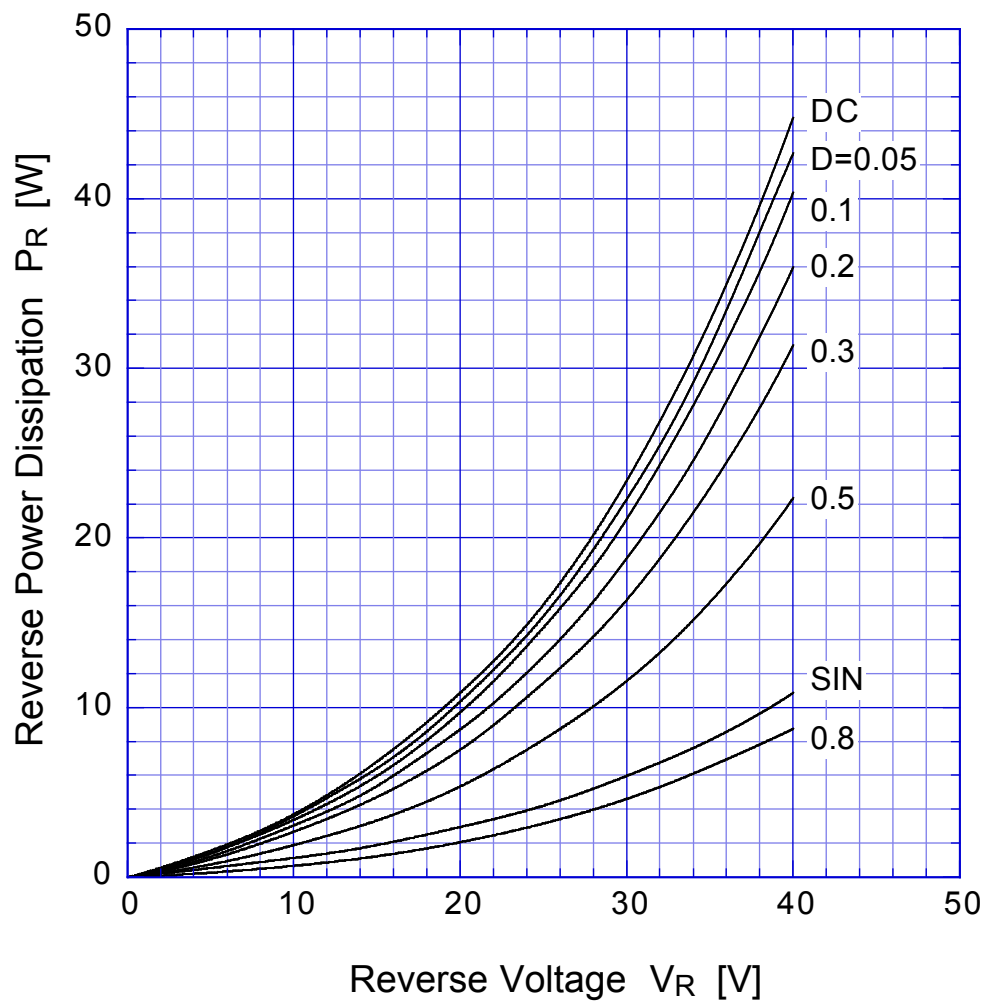


S30SC4M

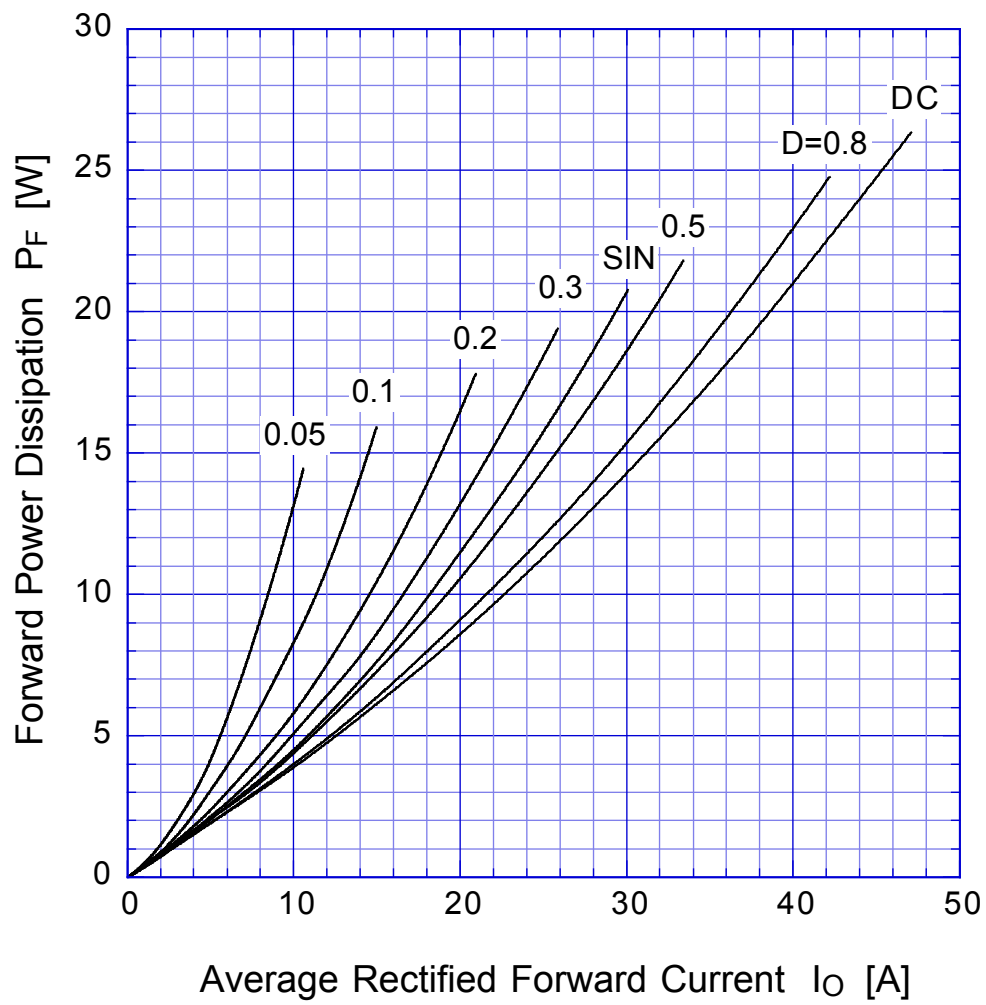
Reverse Current



S30SC4M Reverse Power Dissipation



S30SC4M Forward Power Dissipation

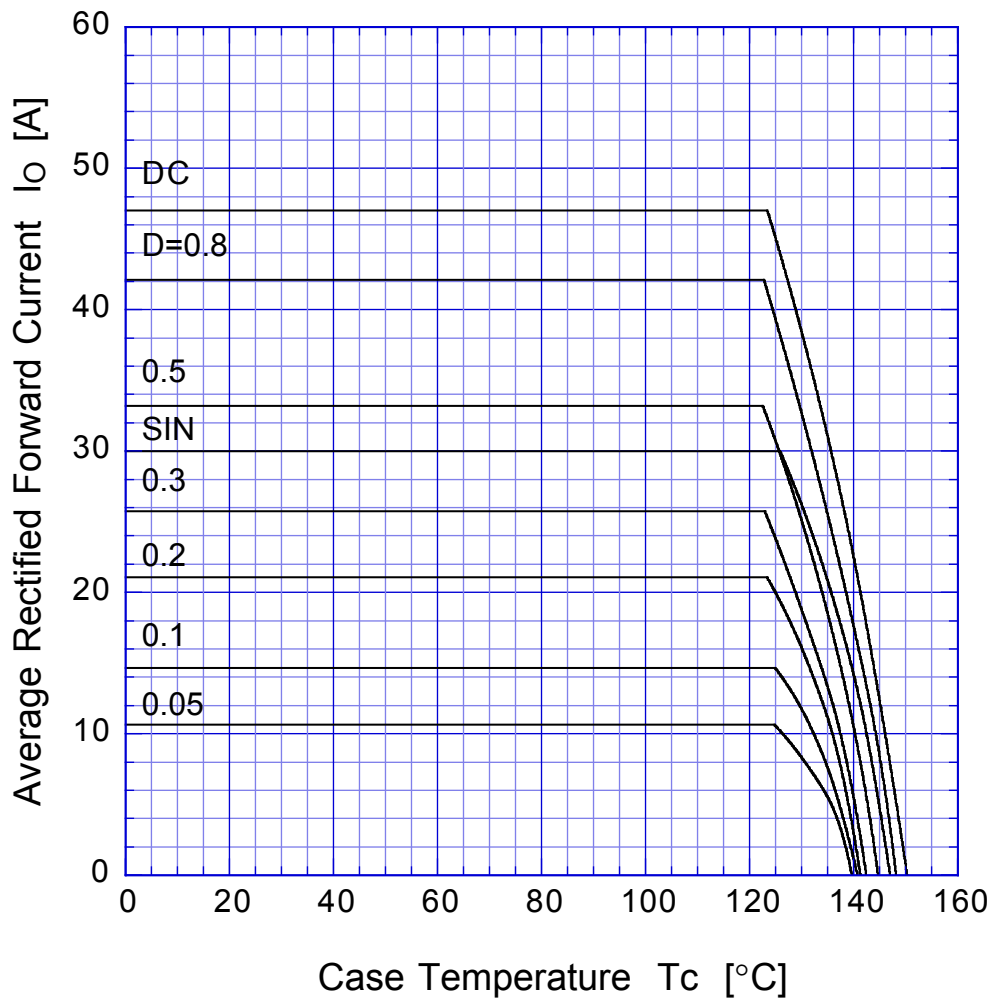


$T_J = 150^\circ\text{C}$

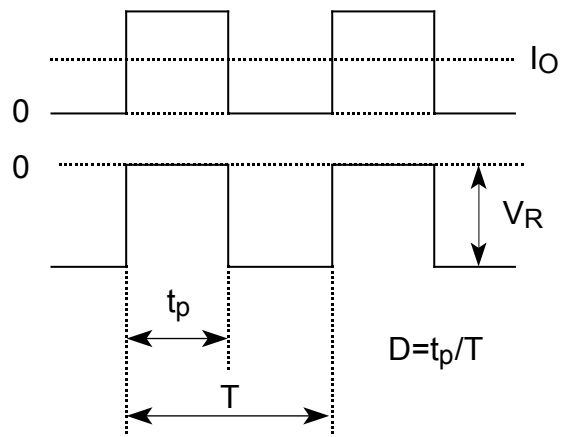


S30SC4M

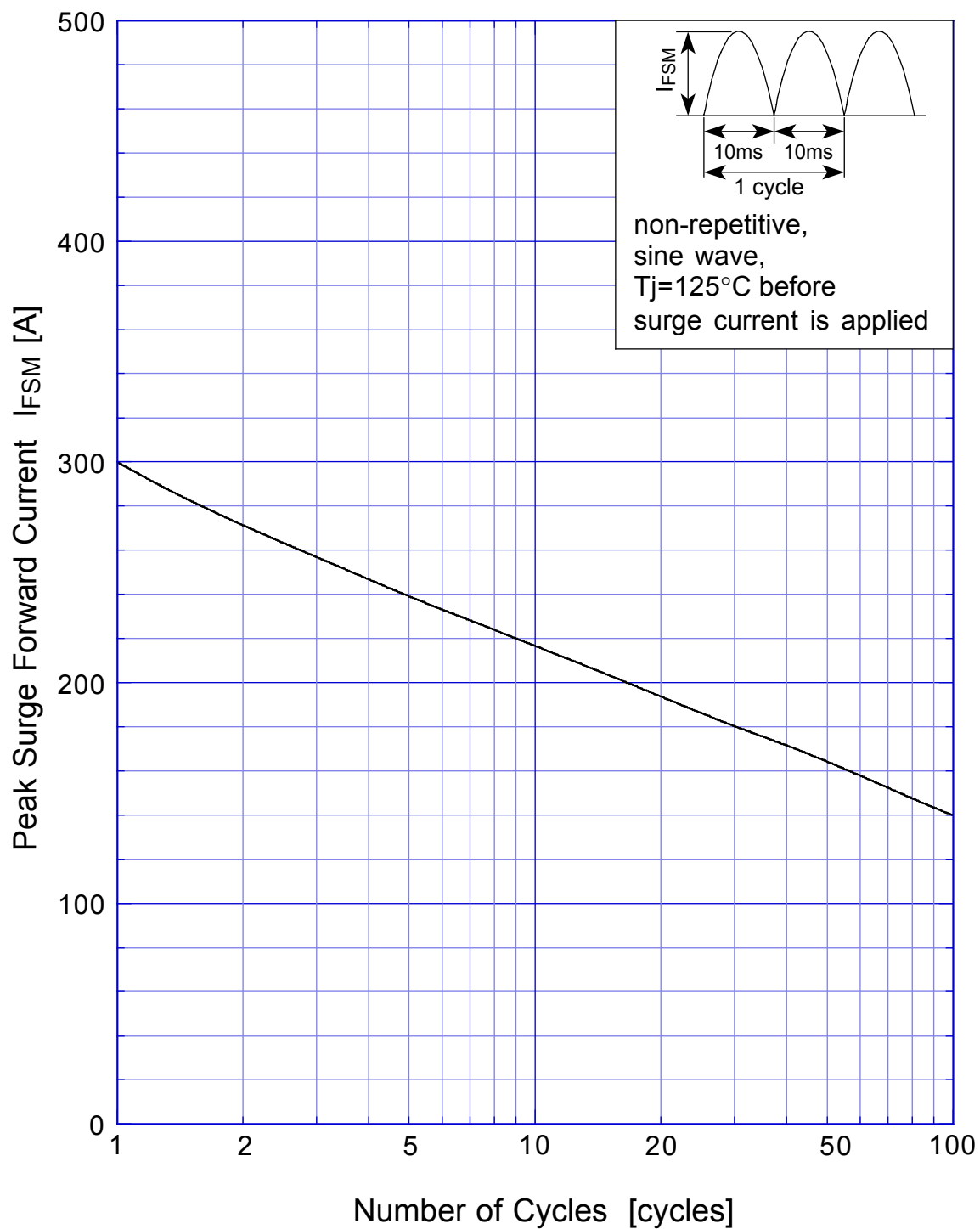
Derating Curve



$V_R = 20V$



S30SC4M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

