SHINDENGEN

Schottky Rectifiers (SBD)

Dual

S20SC9M

90V 20A

FEATURES

- Tj150℃
- PRRSM avalanche guaranteed
- Small θ jc
- High current capacity

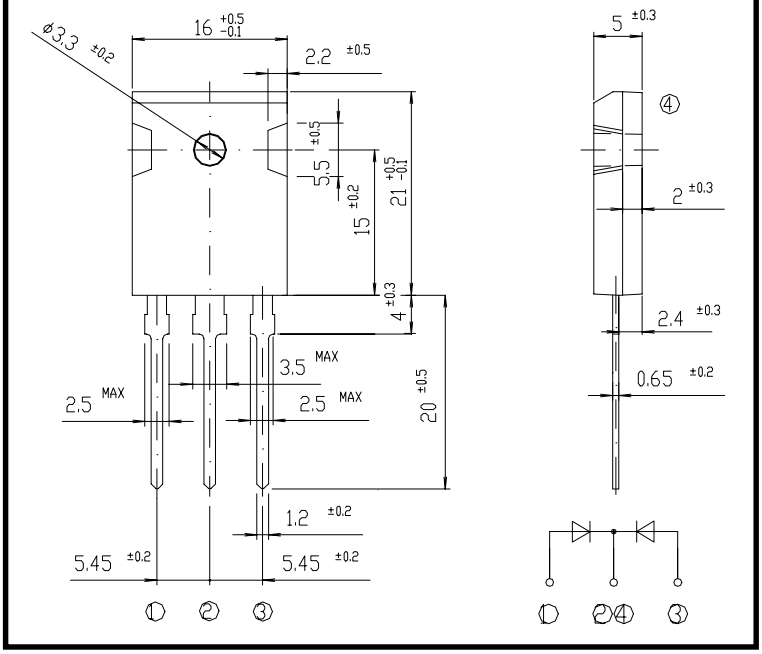
APPLICATION

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

OUTLINE DIMENSIONS

Case : MTO-3P

Unit : mm



RATINGS

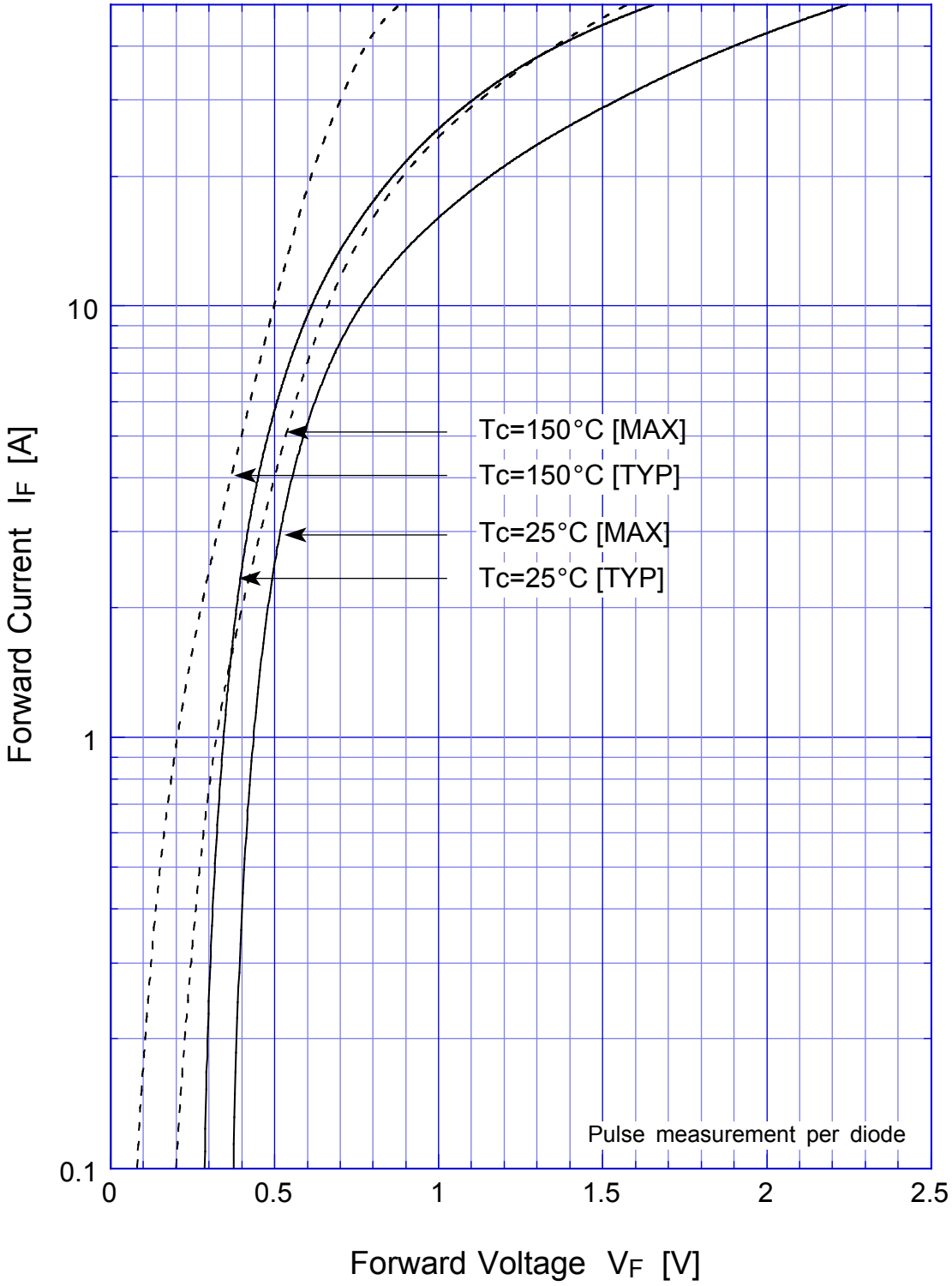
●Absolute Maximum Ratings (If not specified Tc=25℃)

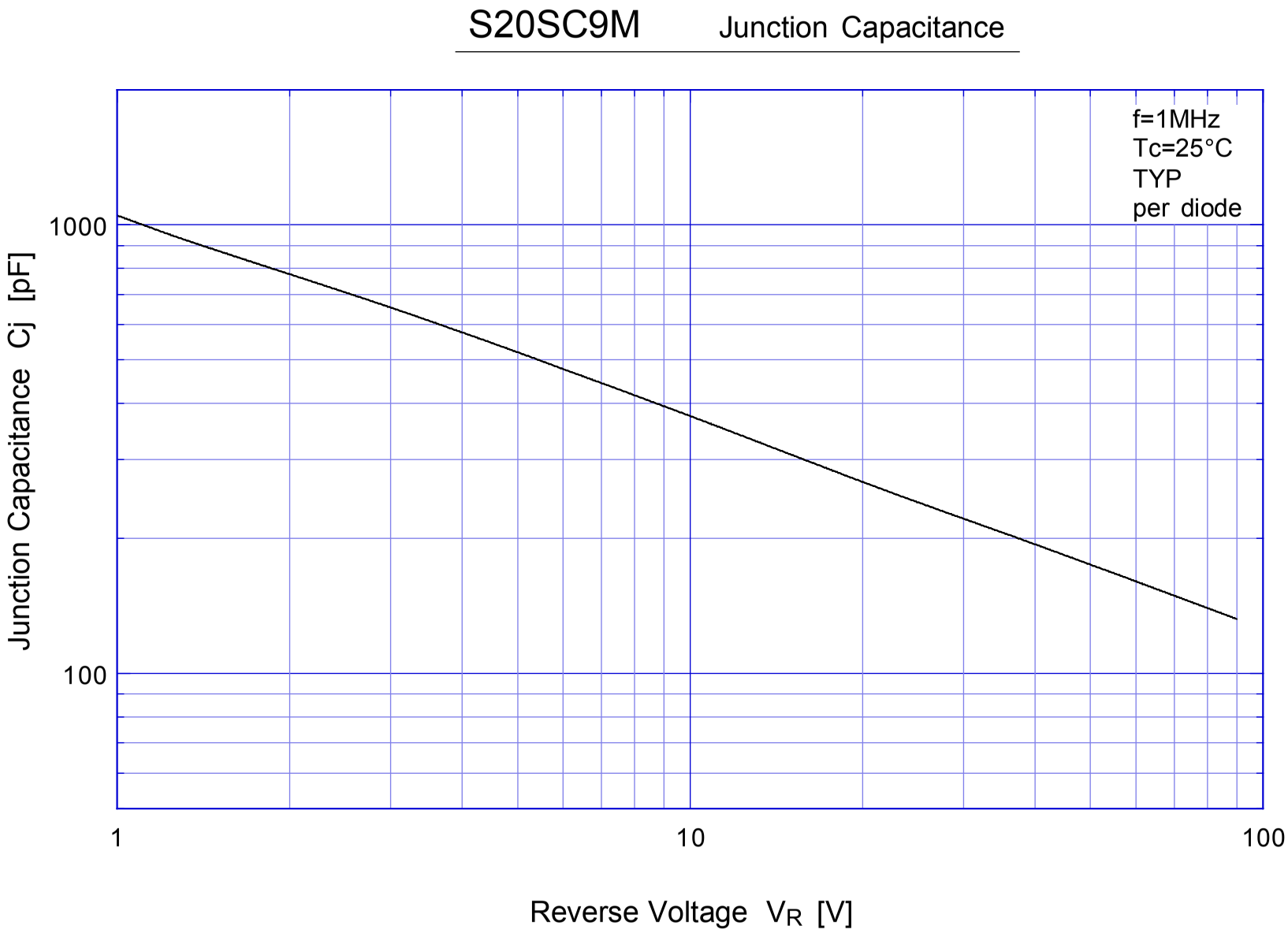
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	VRM		90	V
Repetitive Peak Surge Reverse Voltage	VRRSM	Pulse width 0.5ms, duty 1/40	100	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Rating for each diode Io/2, Tc=125℃	20	A
Peak Surge Forward Current	IFSM	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	200	A
Repetitive Peak Surge Reverse Power	PRRSM	Pulse width 10μs, Rating of per diode, Tj=25℃	660	W
Mounting Torque	TOR	(Recommended torque : 0.5N・m)	0.8	N・m

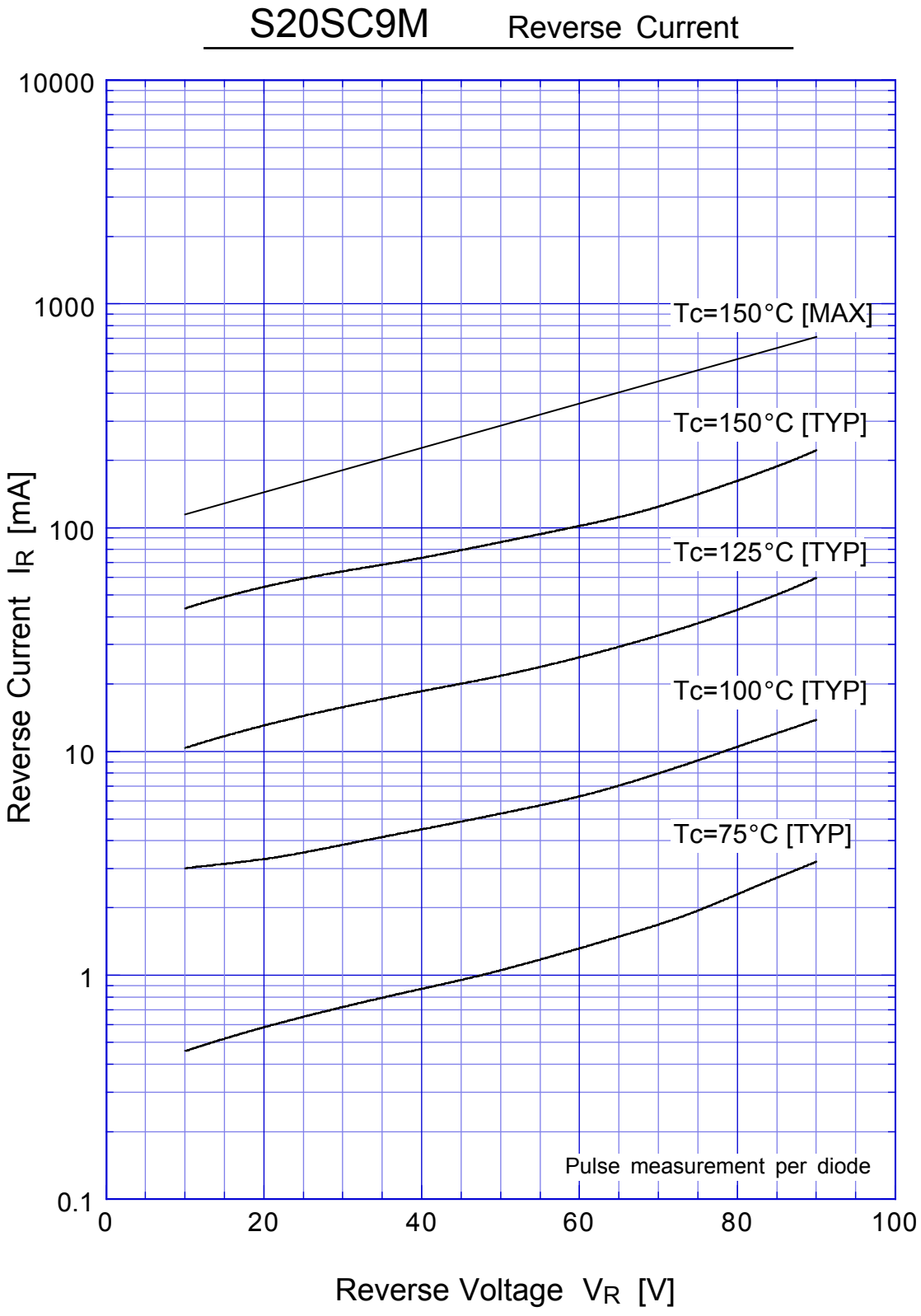
●Electrical Characteristics (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	VF	IF=10A, Pulse measurement, Rating of per diode	Max.0.75	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.370	pF
Thermal Resistance	θ jc	junction to case	Max.1.0	℃/W

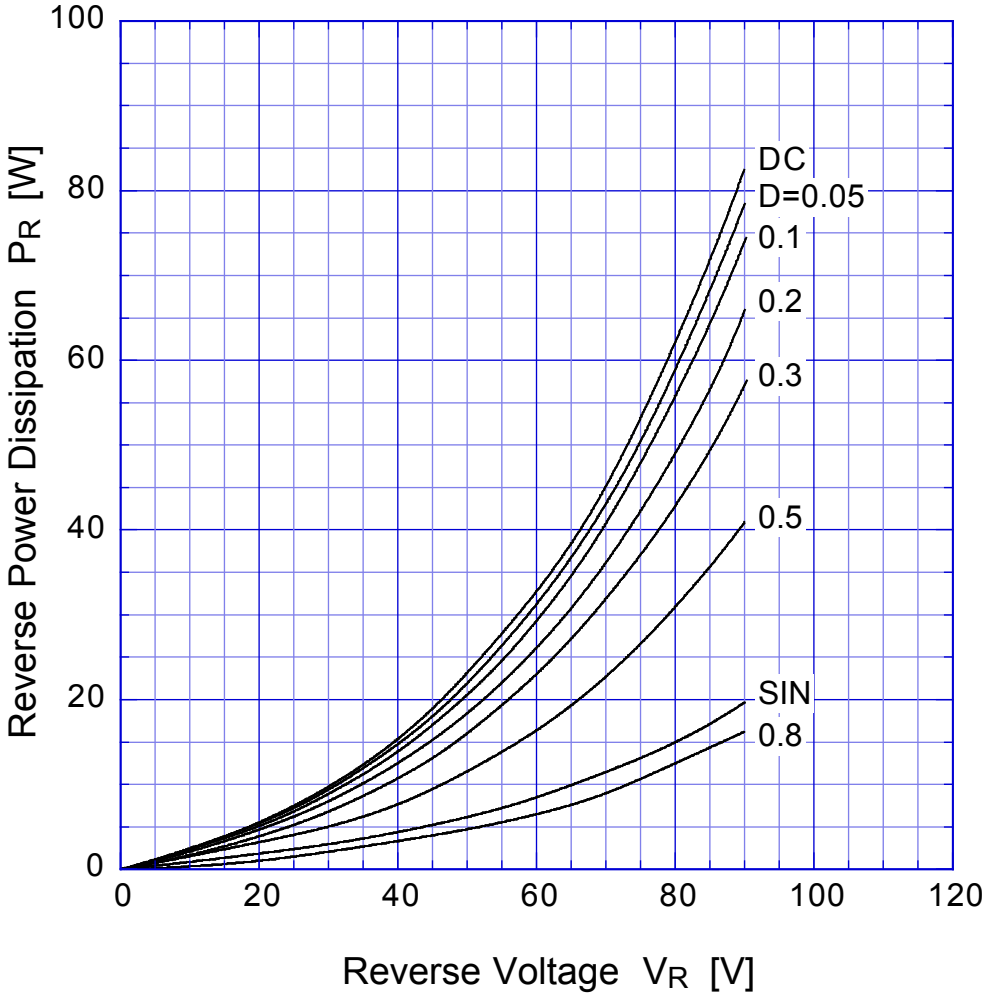
S20SC9M Forward Voltage



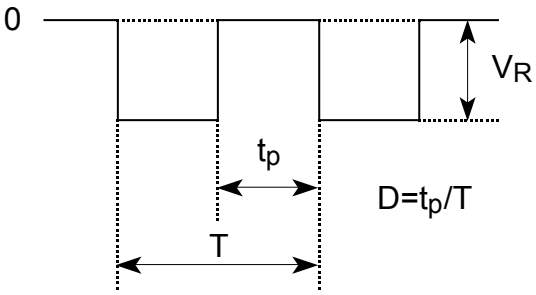

S20SC9M
Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
1000
100
Junction Capacitance Cj [pF]
1
10
100
Reverse Voltage VR [V]


S20SC9M Reverse Current
10000
1000
100
10
1
0.1
Reverse Current IR [mA]
0
20
40
60
80
100
Reverse Voltage VR [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=125°C [TYP]
Tc=100°C [TYP]
Tc=75°C [TYP]
Pulse measurement per diode

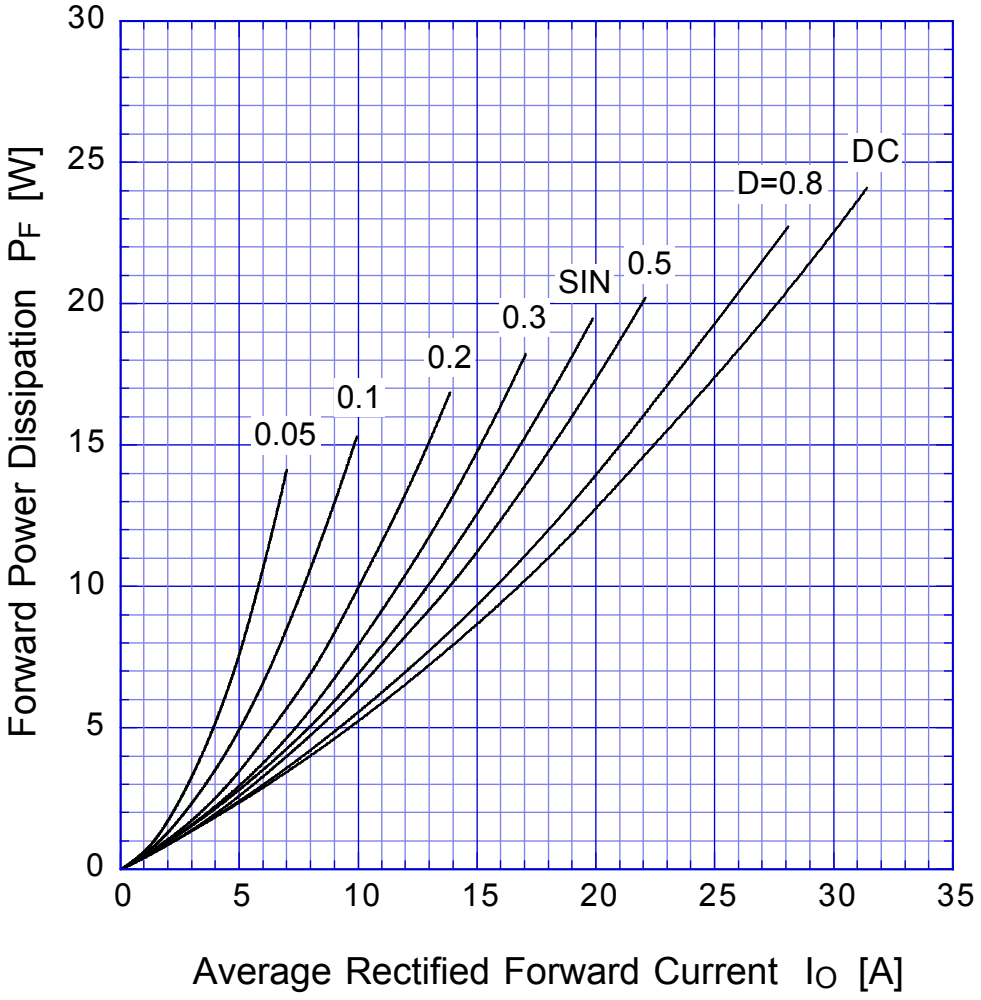
S20SC9M Reverse Power Dissipation



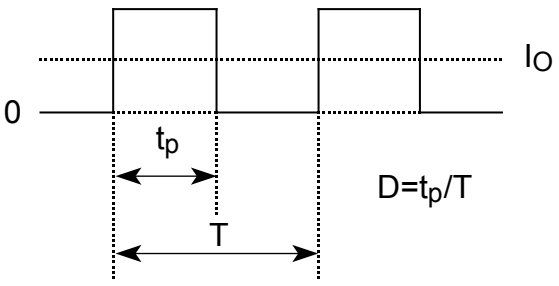
Tj = 150°C



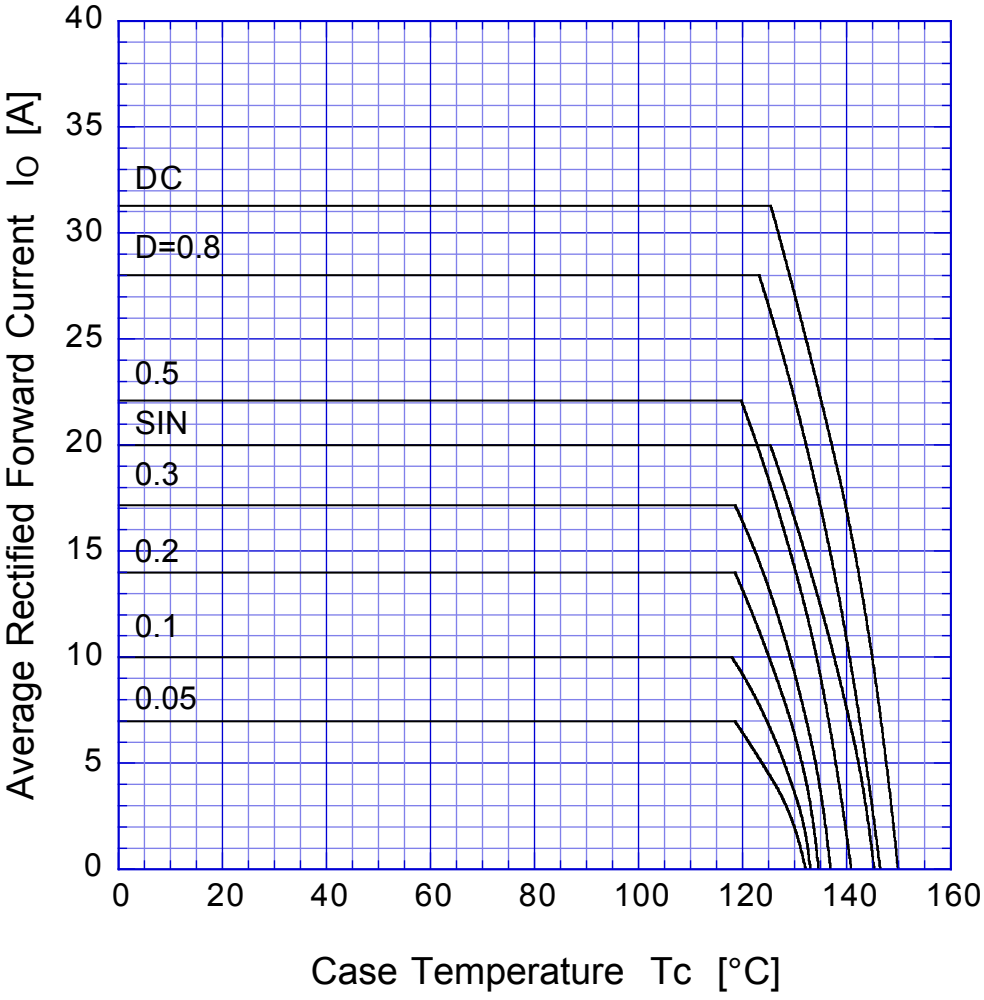
S20SC9M Forward Power Dissipation



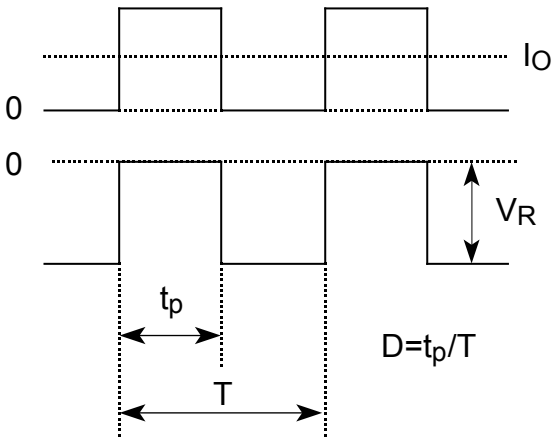
Tj = 150°C



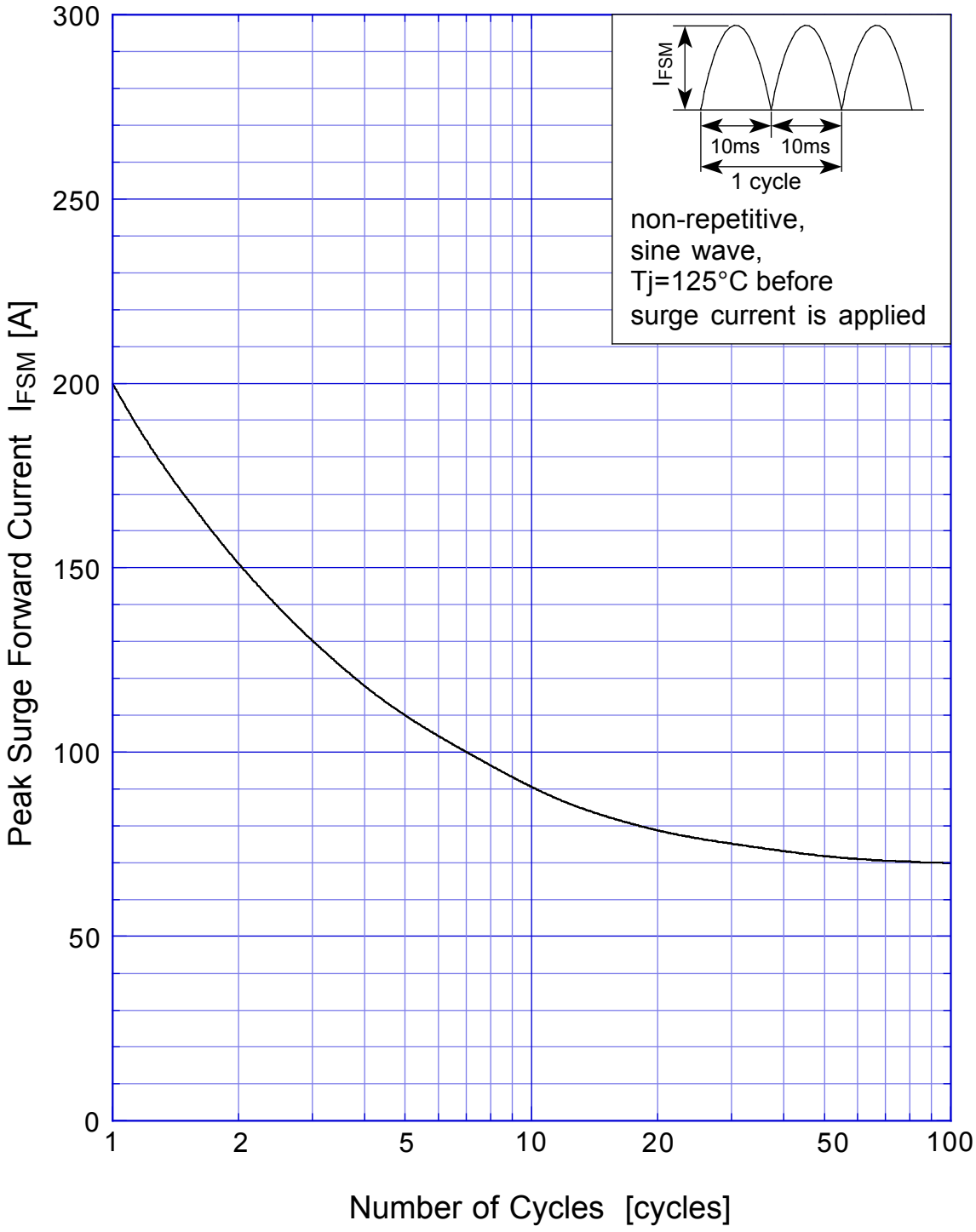
S20SC9M Derating Curve



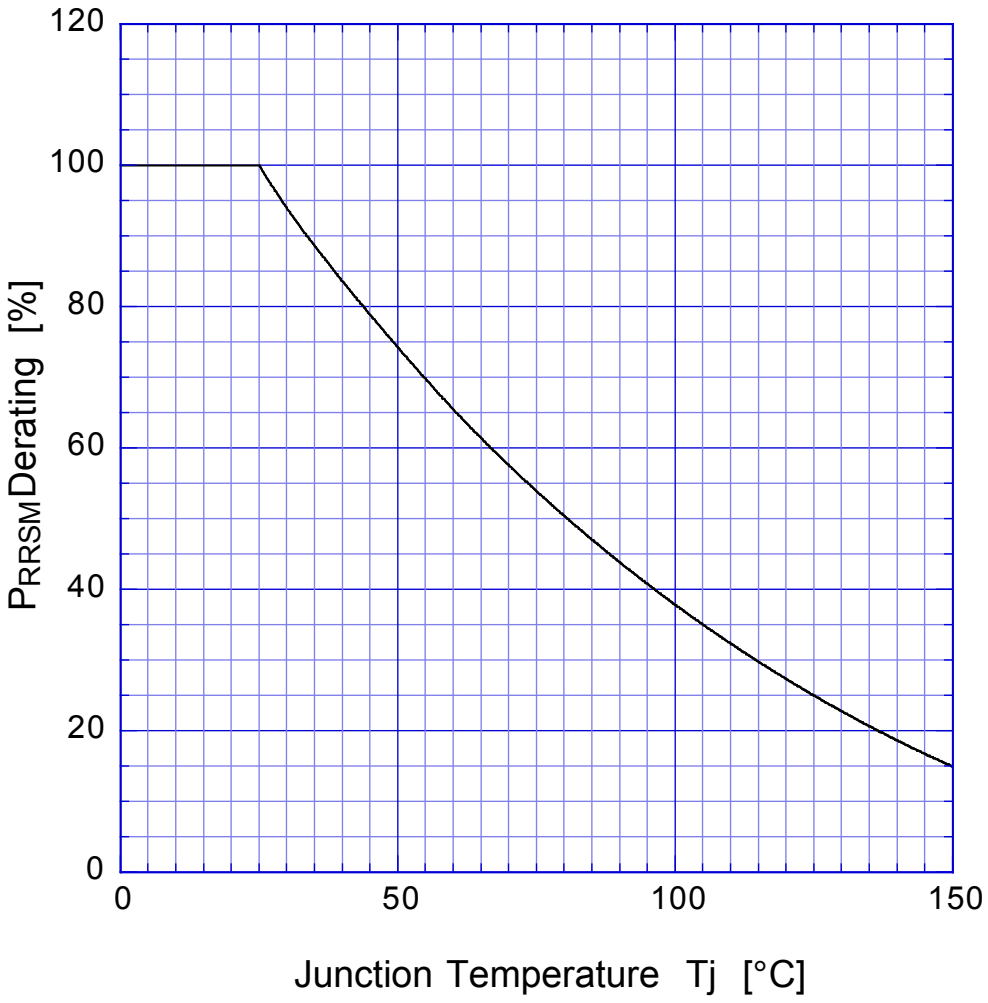
V_R = 45V

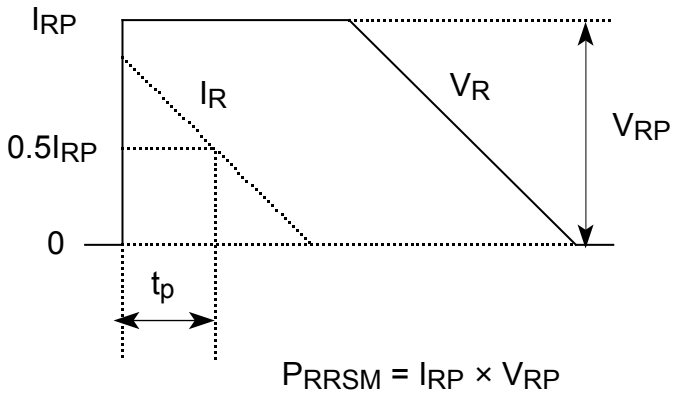


S20SC9M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability