SHINDENGEN

Schottky Rectifiers (SBD)

Dual

S60SC6M

60V 60A

FEATURES

- Tj150℃
- P_{RRSM} avalanche guaranteed
- Small θ jc
- High current capacity

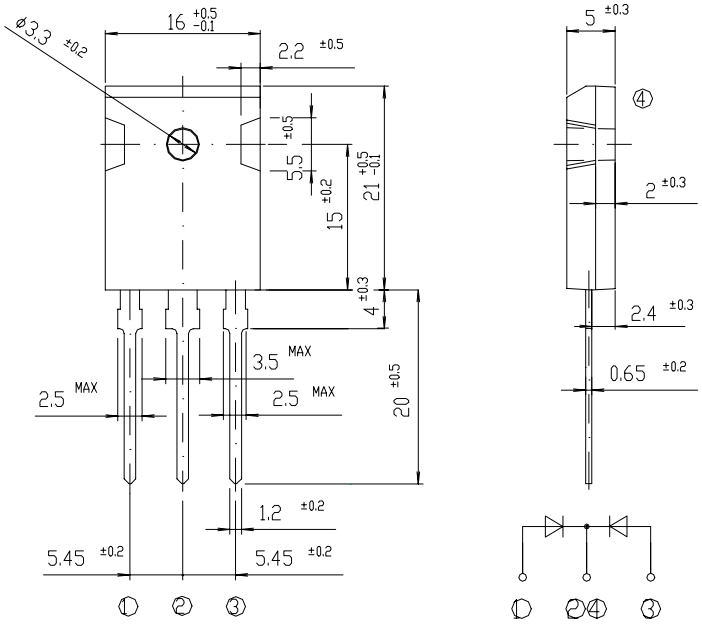
APPLICATION

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

OUTLINE DIMENSIONS

Case : MTO-3P

Unit : mm



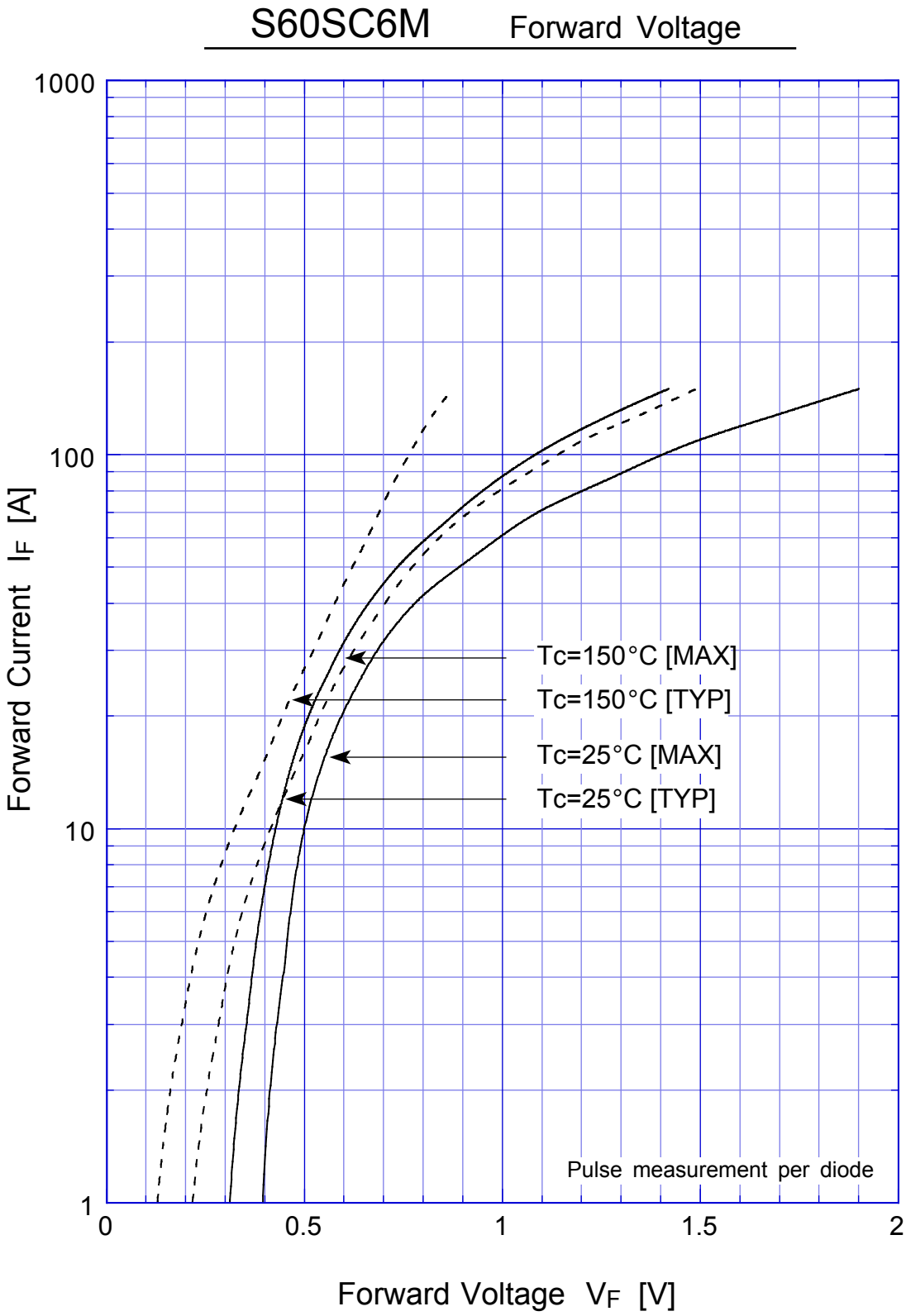
RATINGS

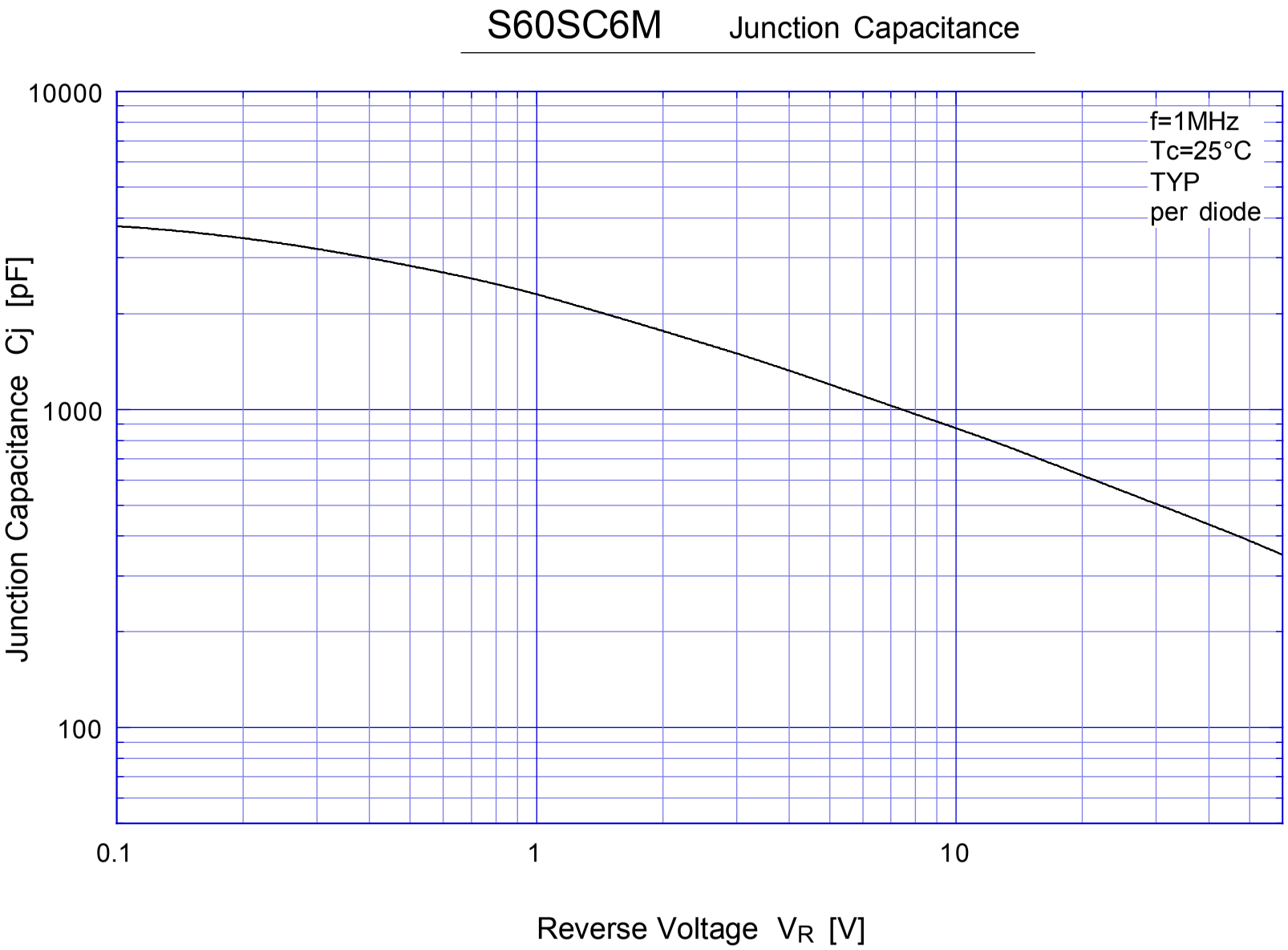
●Absolute Maximum Ratings (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		−40～150	℃
Operating Junction Temperature	Tj		150	℃
Maximum Reverse Voltage	V_{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Rating for each diode Io/2, Tc=118℃	60	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125℃	500	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Rating of per diode, Tj=25℃	1000	W
Mounting Torque	TOR	(Recommended torque : 0.5N・m)	0.8	N・m

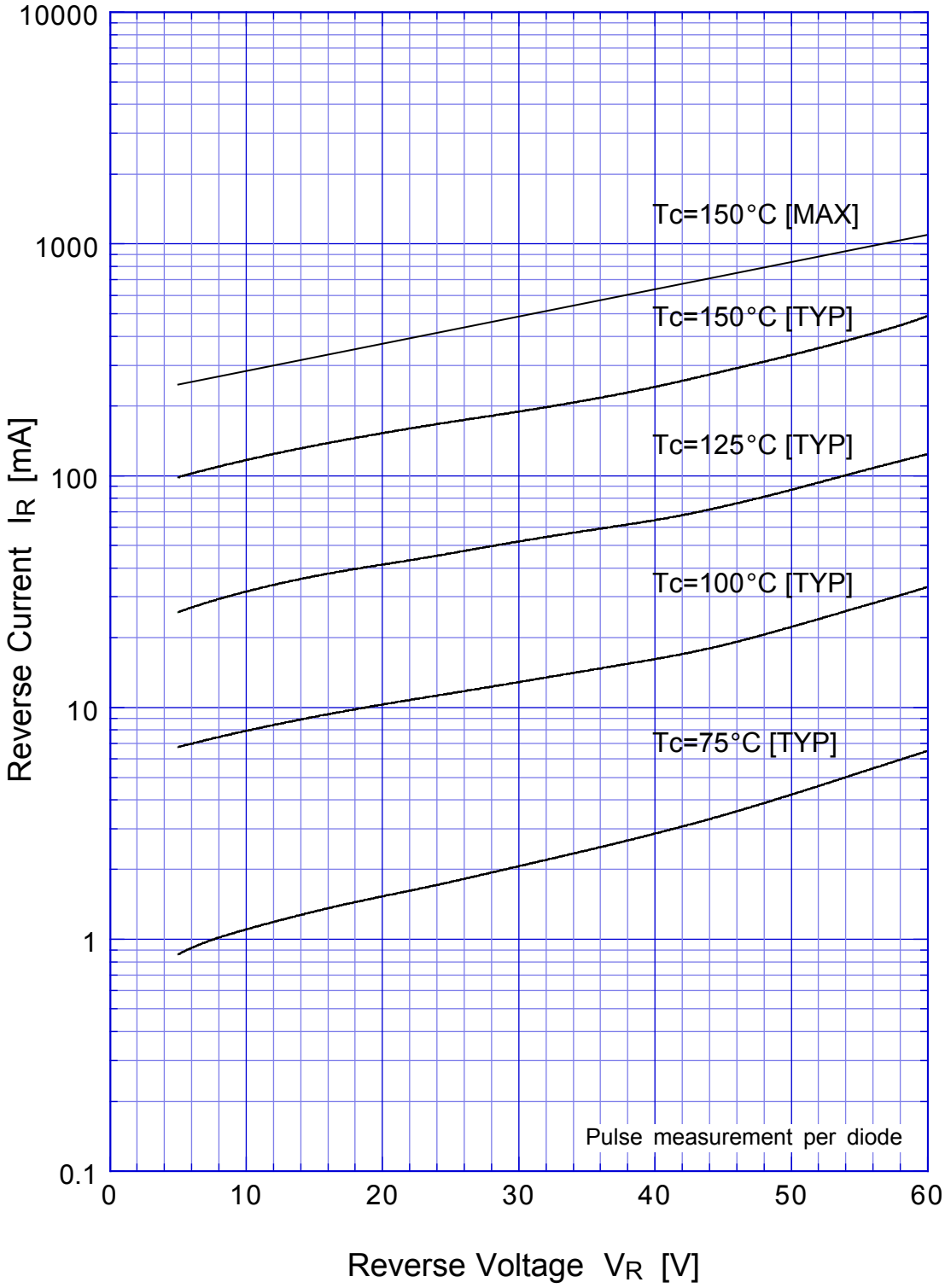
●Electrical Characteristics (If not specified Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=30A, Pulse measurement, Rating of per diode	Max.0.67	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement, Rating of per diode	Max.20	mA
Junction Capacitance	Cj	f=1MHz, V_R=10V, Rating of per diode	Typ.850	pF
Thermal Resistance	θ jc	junction to case	Max.0.5	℃/W

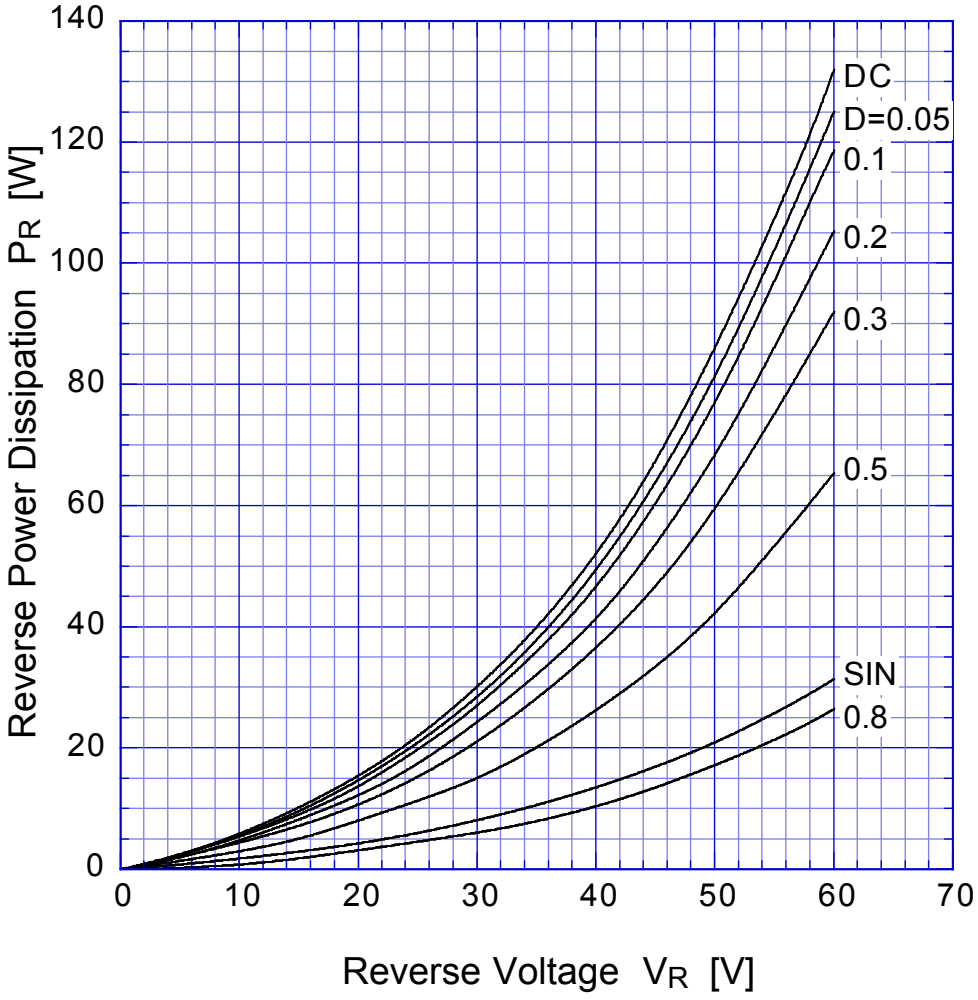

S60SC6M Forward Voltage
1000
100
10
1
0
0.5
1
1.5
2
Forward Current IF [A]
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=25°C [MAX]
Tc=25°C [TYP]
Pulse measurement per diode


S60SC6M
Junction Capacitance
10000
1000
100
0.1
1
10
f=1MHz
Tc=25°C
TYP
per diode
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]

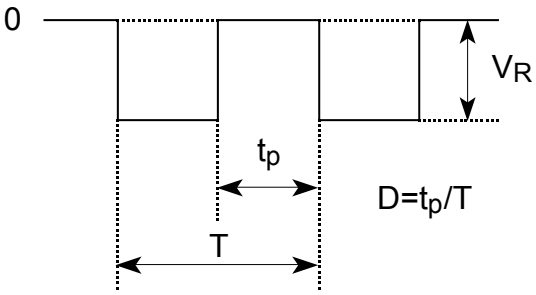
S60SC6M Reverse Current



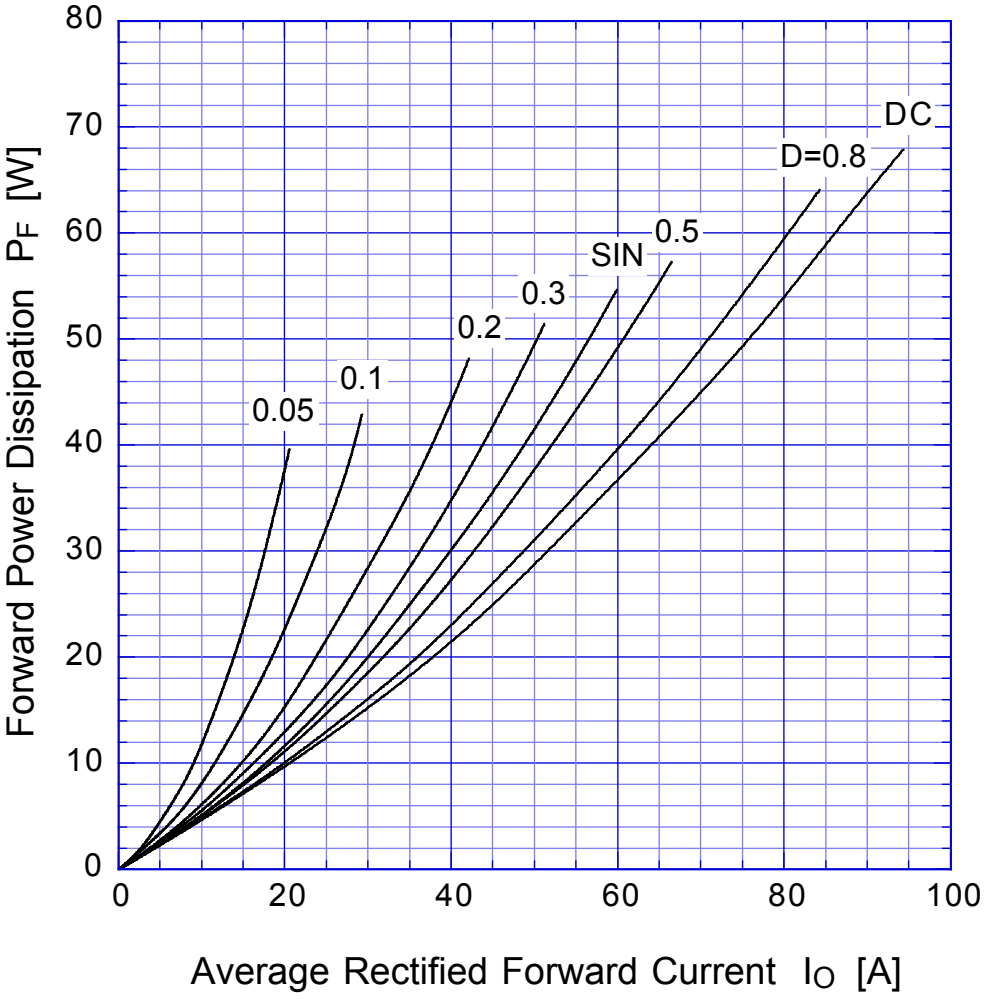
S60SC6M Reverse Power Dissipation



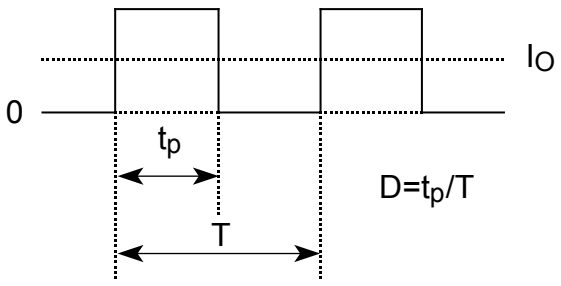
Tj = 150°C



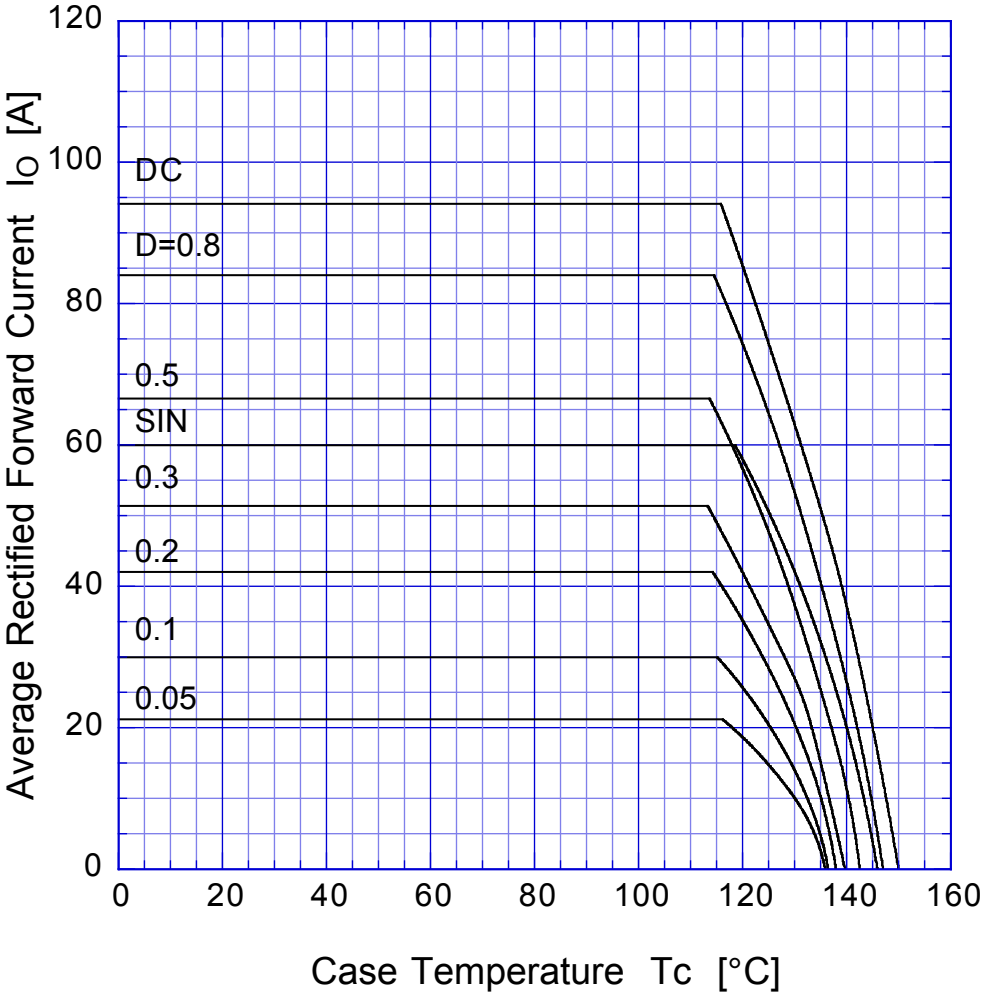
S60SC6M Forward Power Dissipation



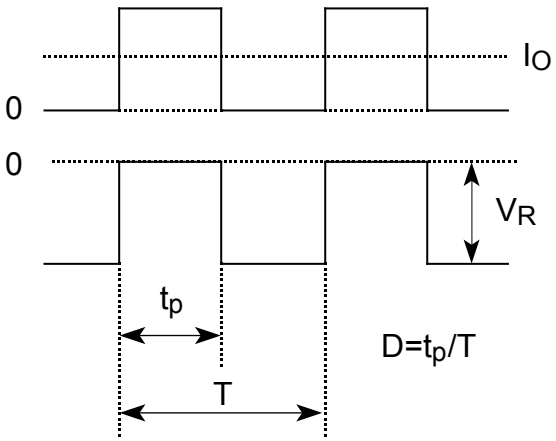
Tj = 150°C



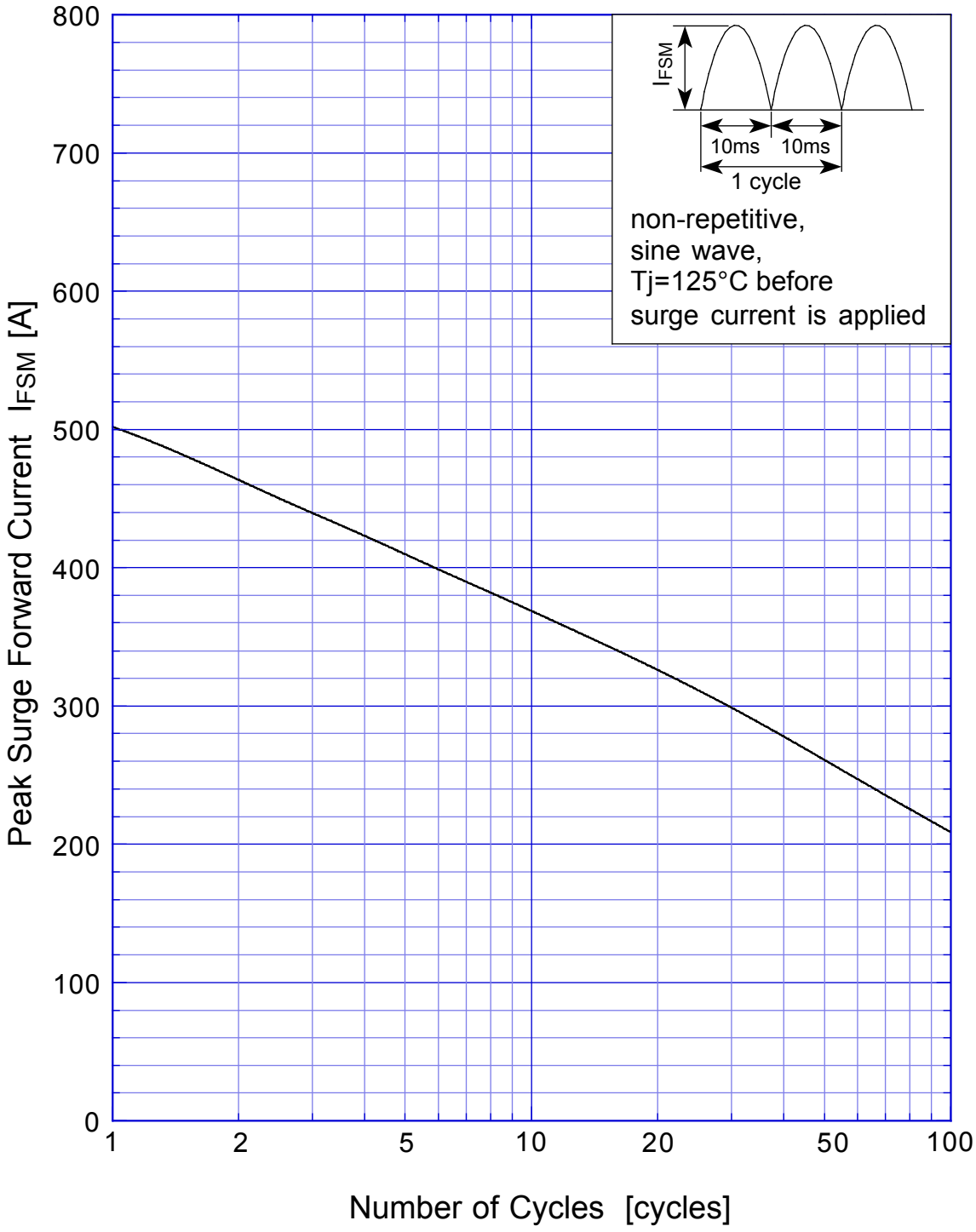
S60SC6M Derating Curve



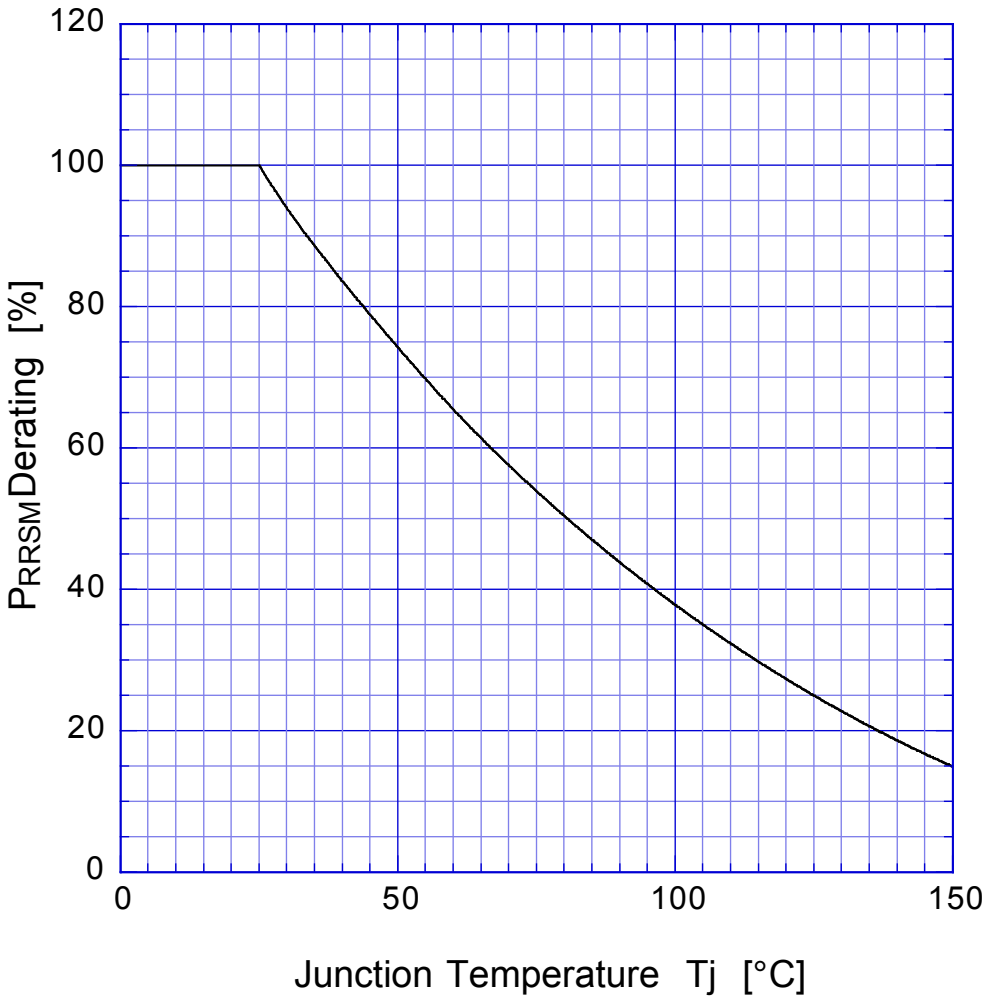
V_R = 30V

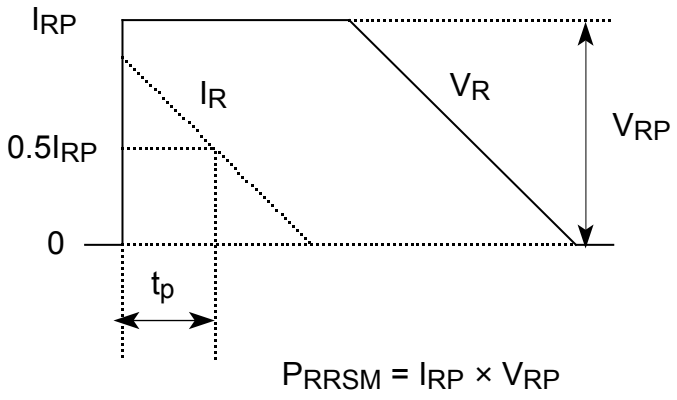


S60SC6M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve





SBD Repetitive Surge Reverse Power Capability