

SHINDENGEN

Schottky Rectifiers (SBD)

Single

D3S6M

60V 3A

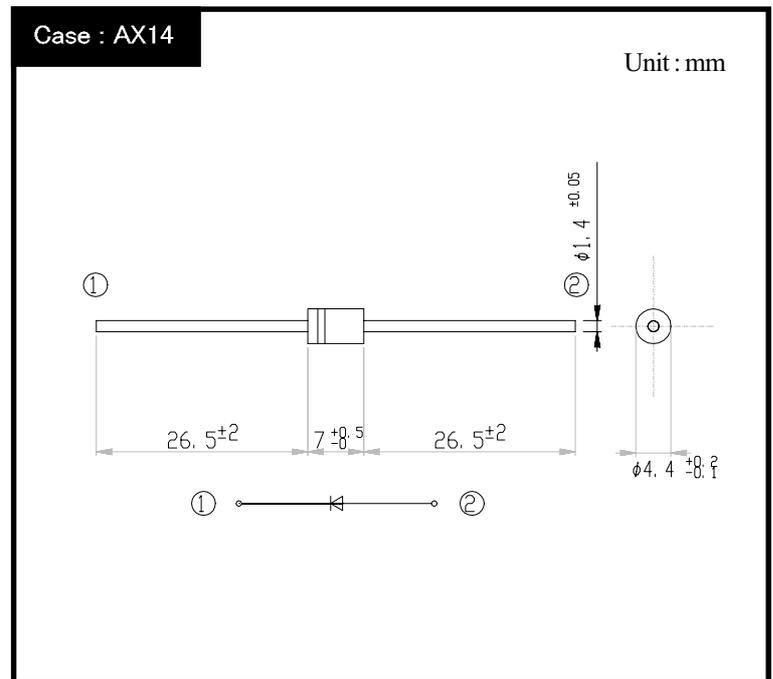
FEATURES

- Tj150°C
- P_{RRSM} avalanche guaranteed
- 1.4 φ lead

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings Tl=25°C

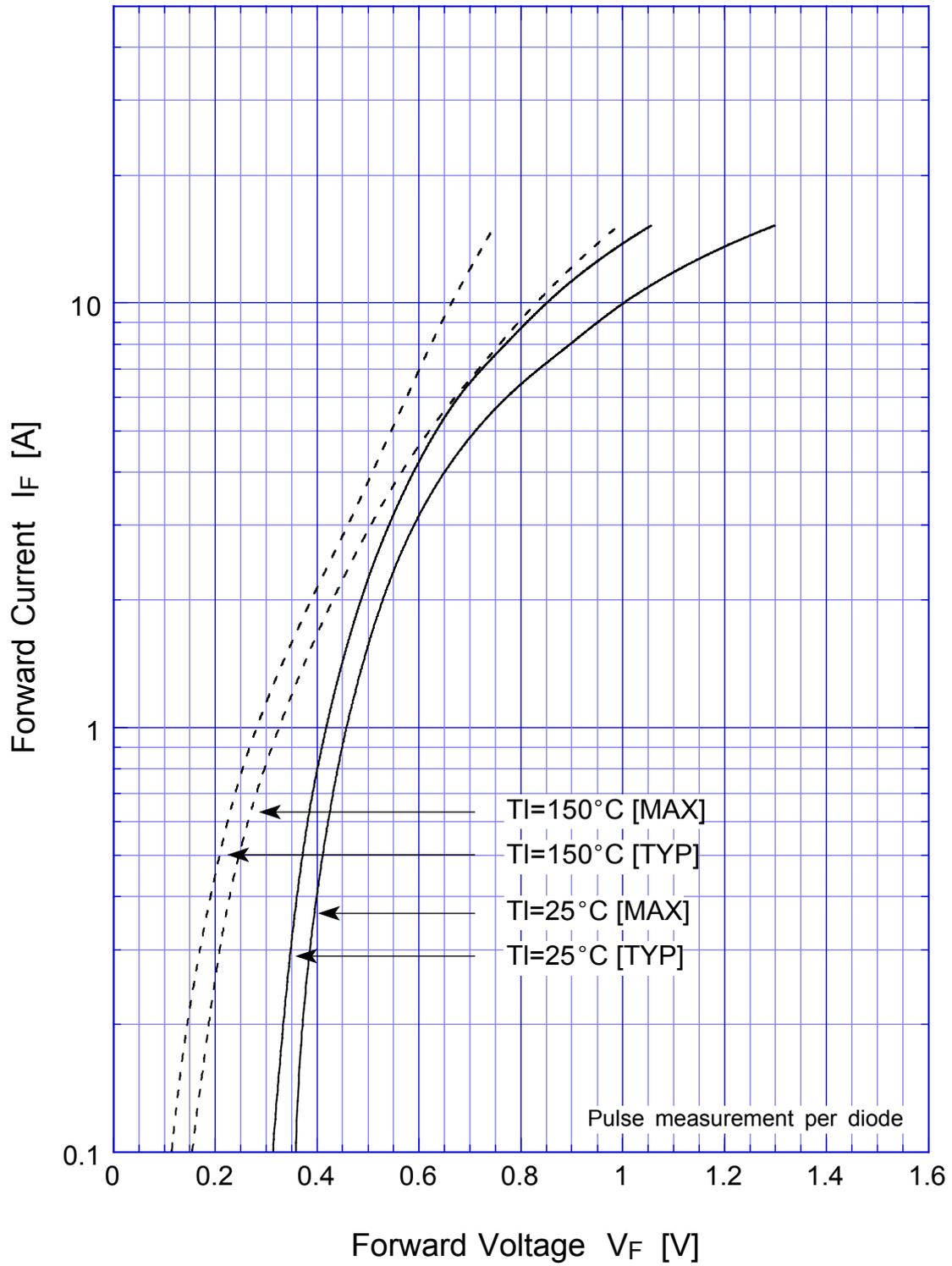
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-40~150	°C
Operating Junction Temperature	T _j		150	°C
Maximum Reverse Voltage	V _{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	Pulse width0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I _O	50Hz sine wave, R-load Tl=133°C	3	A
		50Hz sine wave, R-load Ta=57°C	1.8	
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Rating of per diode, Tj=125°C	80	A
Repetitive Peak Surge Reverse Power	P _{RRSM}	Pulse width10 μs, Tj=25°C	330	W

● Electrical Characteristics Tl=25°C

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F =3A, Pulse measurement	Max.0.58	V
Reverse Current	I _R	V _R =V _{RM} , Pulse measurement	Max.2.5	mA
Junction Capacitance	C _j	f=1MHz, V _R =10V	Typ.130	pF
Thermal Resistance	θ _{jl}	junction to lead	Max.6.5	°C/W
	θ _{ja}	junction to ambient (Without heatsink)	Max.62	

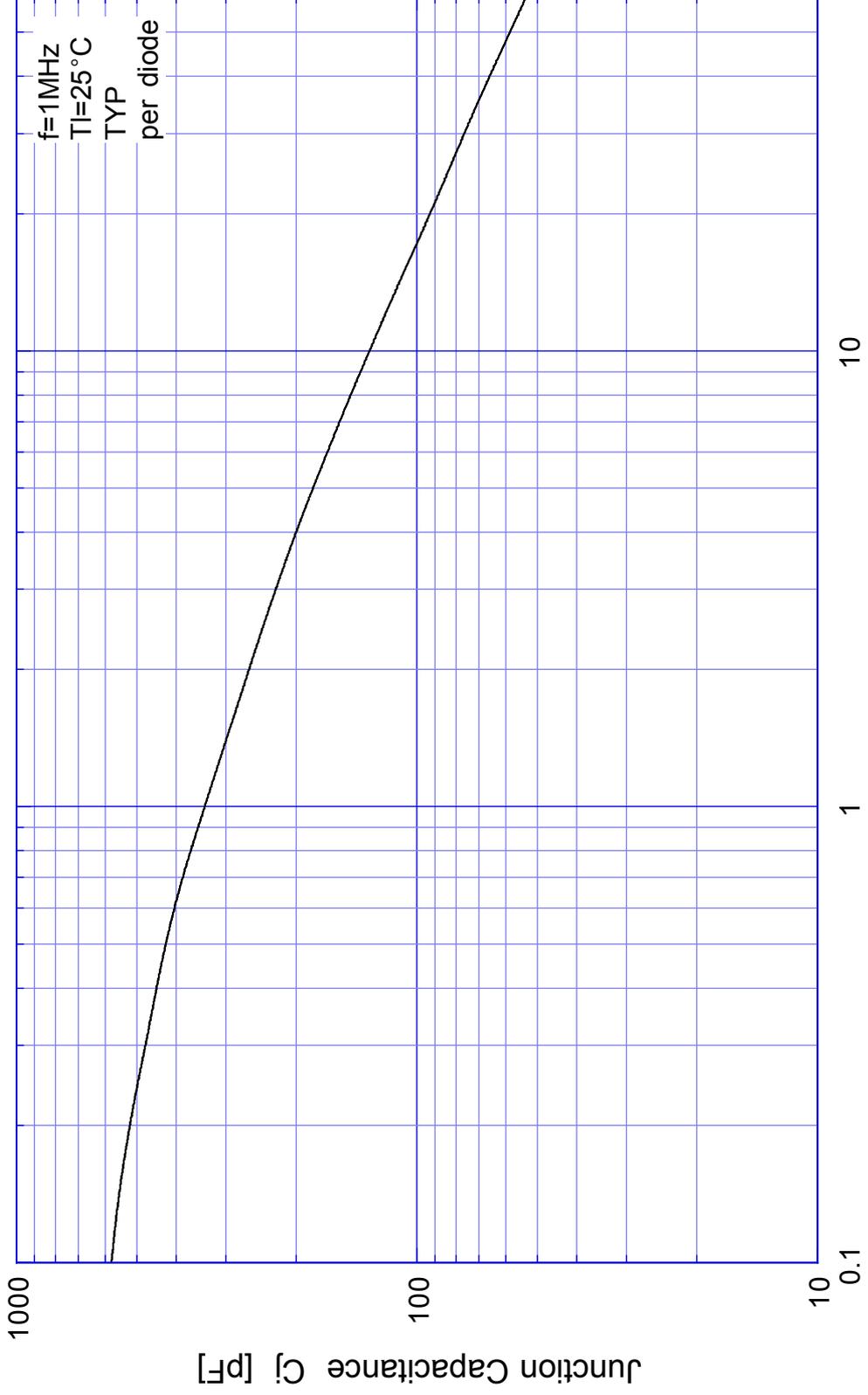
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Forward Voltage



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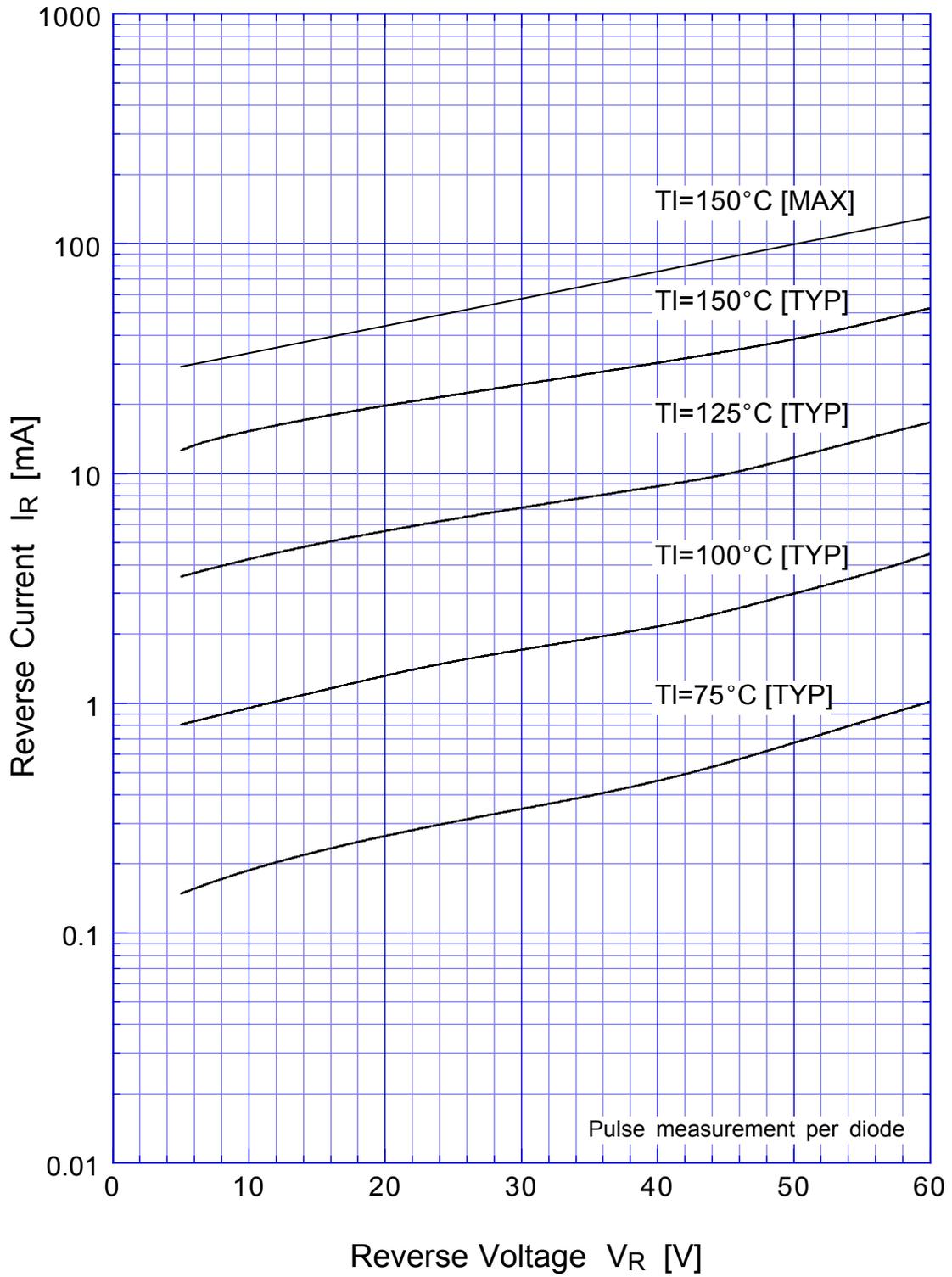
Junction Capacitance



Reverse Voltage V_R [V]

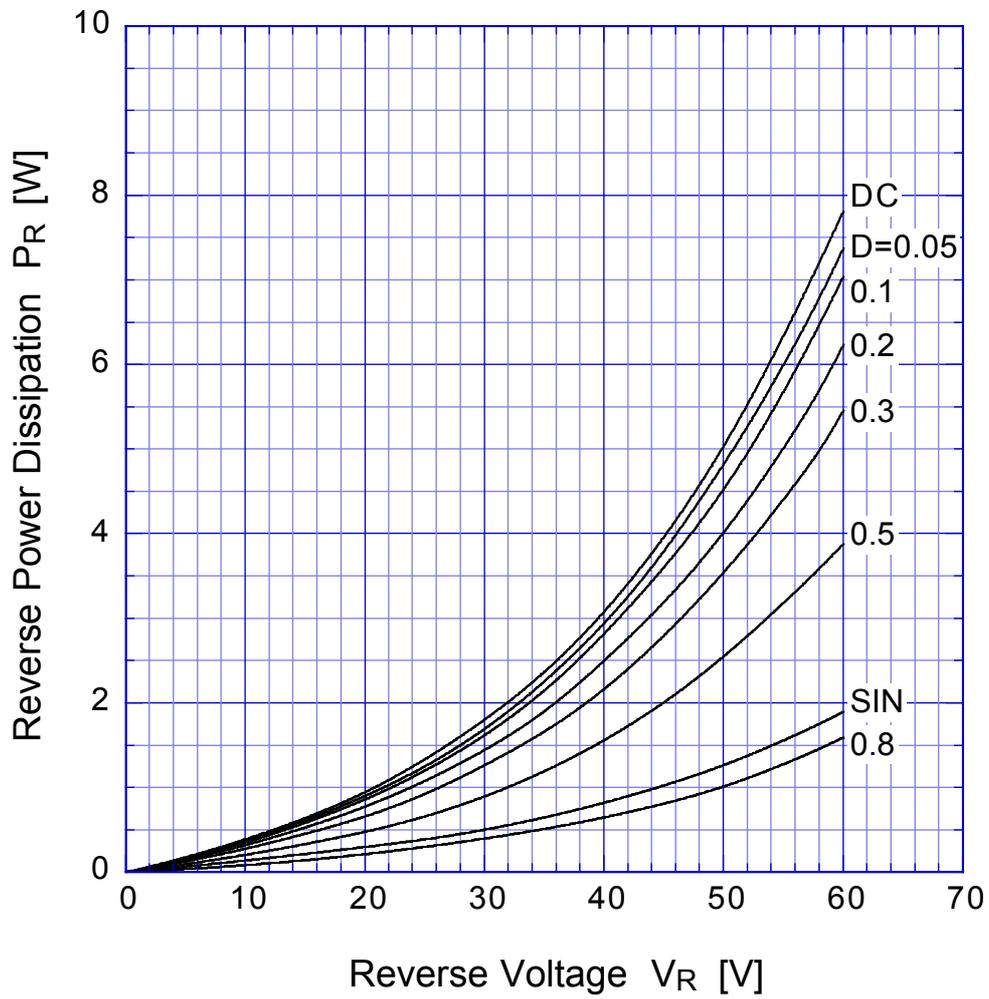
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Reverse Current

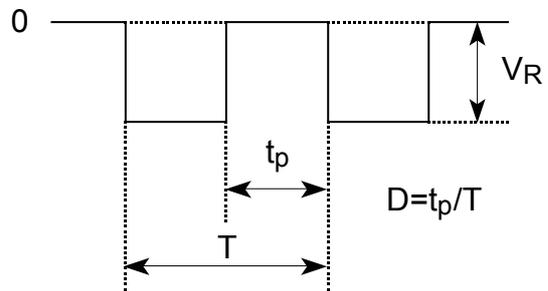


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Reverse Power Dissipation

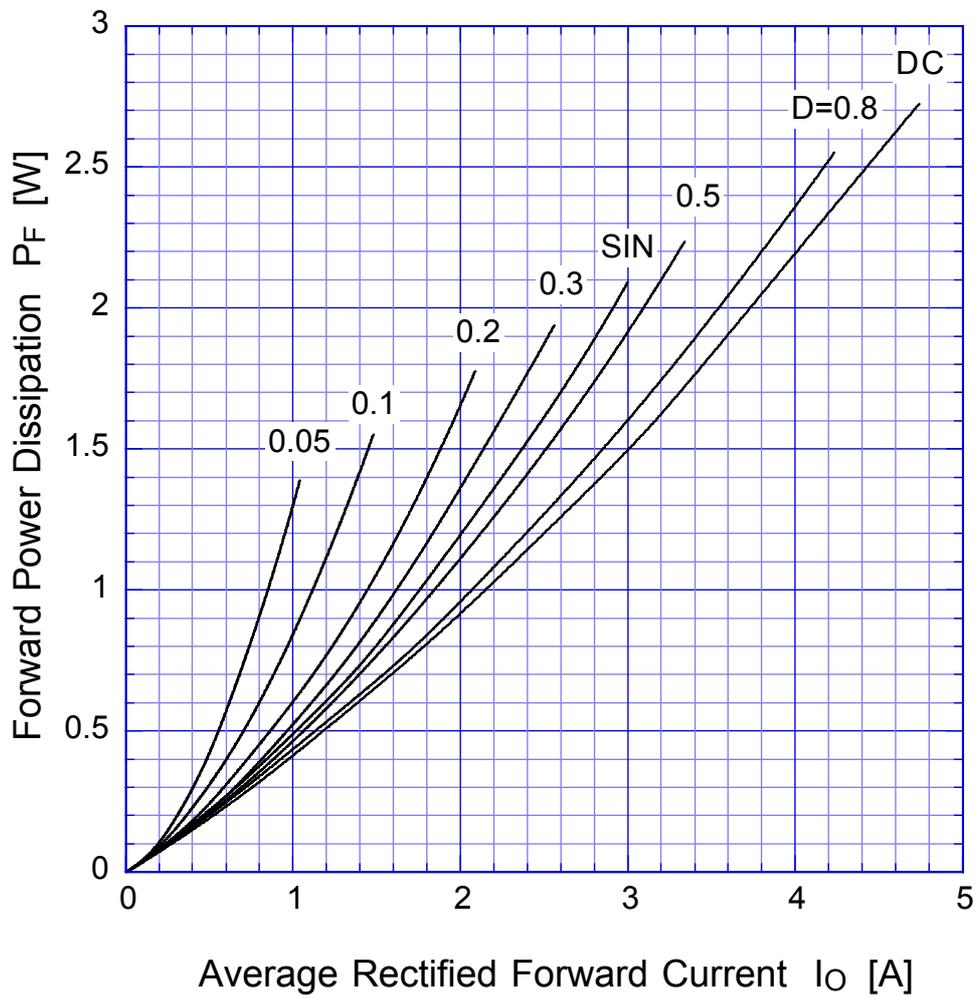


$T_j = 150^\circ\text{C}$

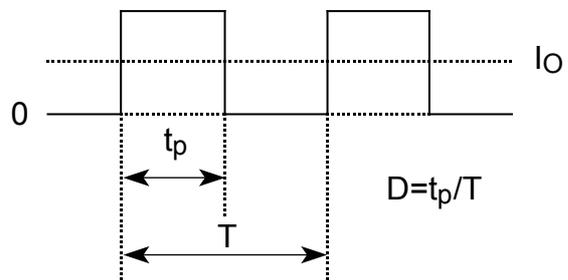


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Forward Power Dissipation

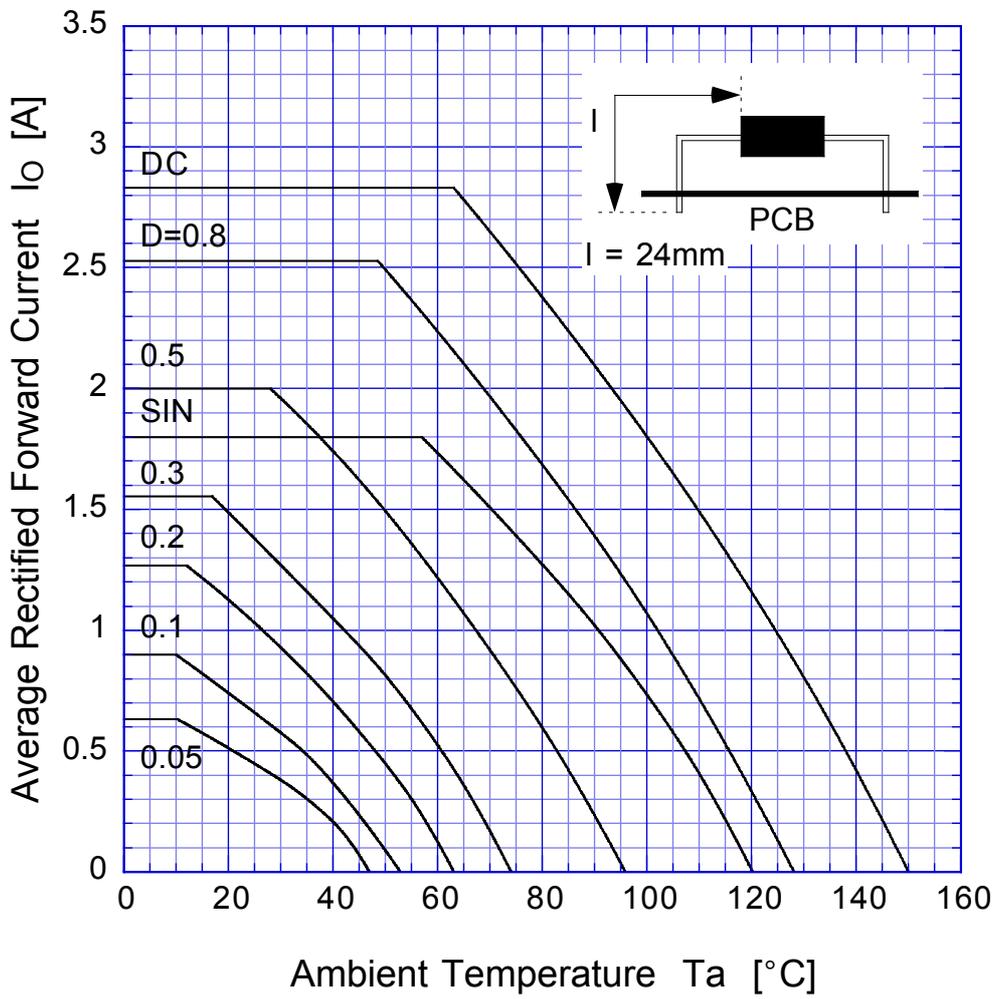


$T_j = 150^\circ\text{C}$

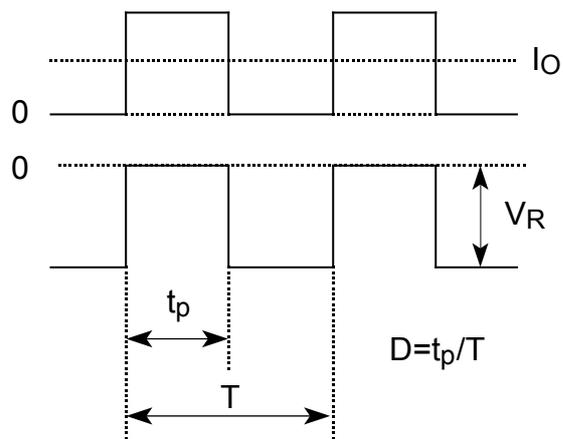


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Derating Curve

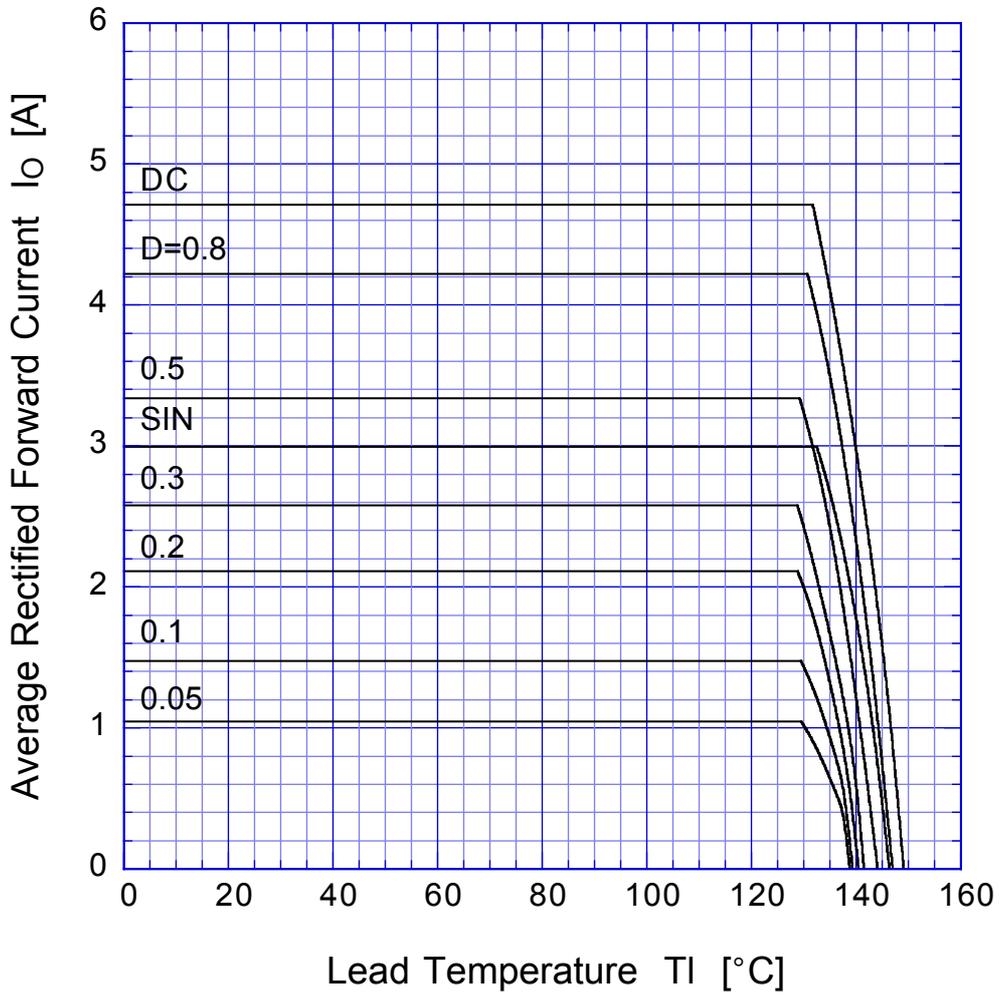


$V_R = 30\text{V}$

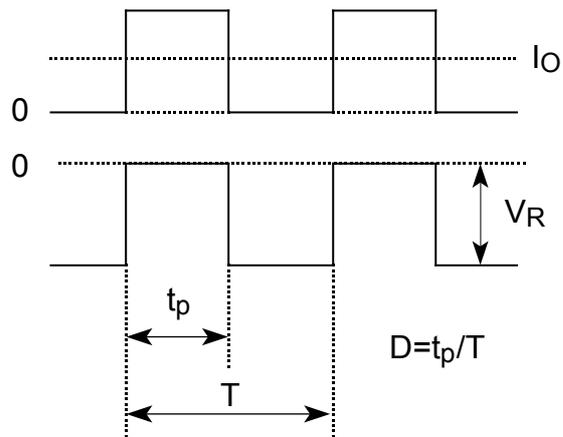


D3S6M

Derating Curve

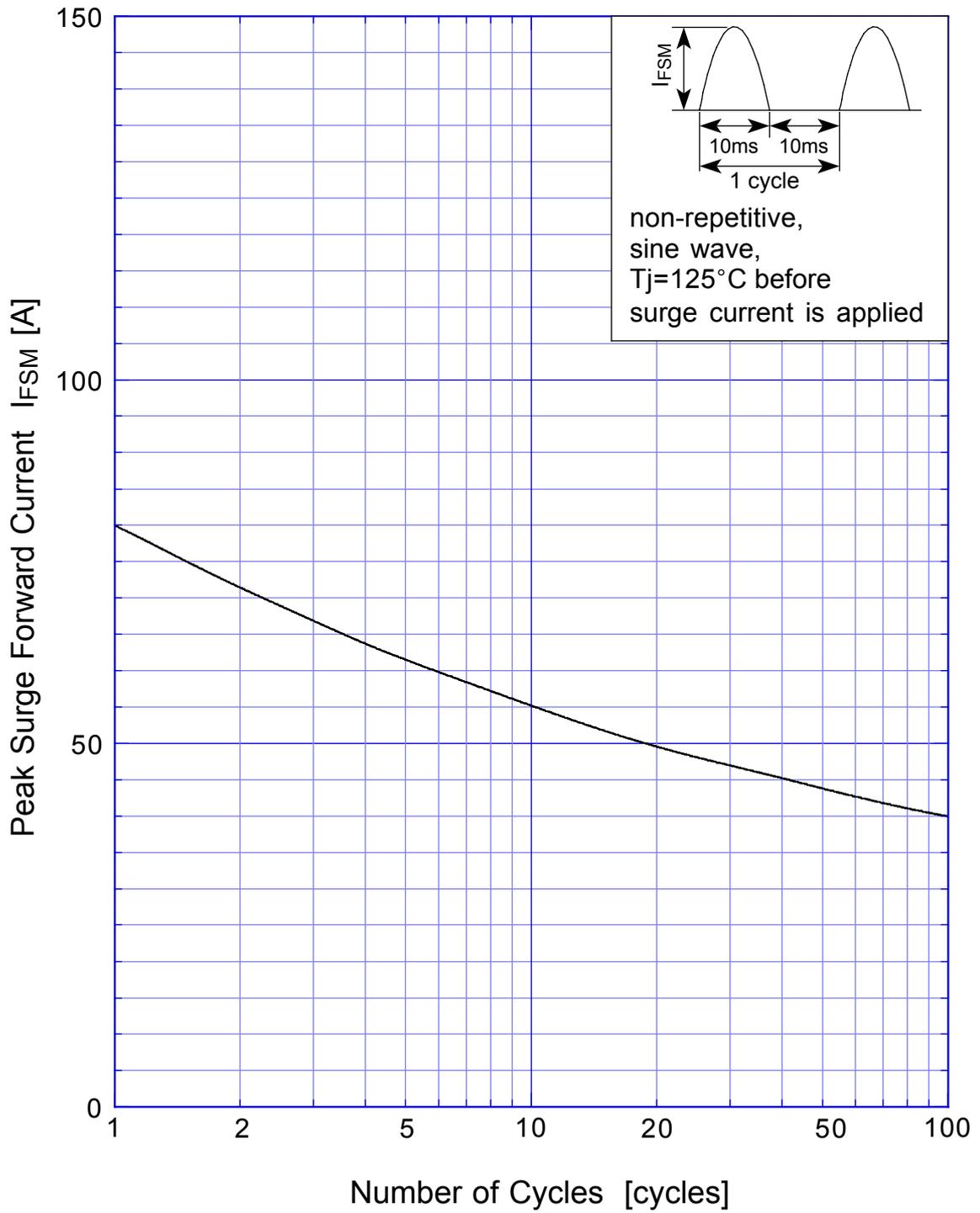


$V_R = 30V$

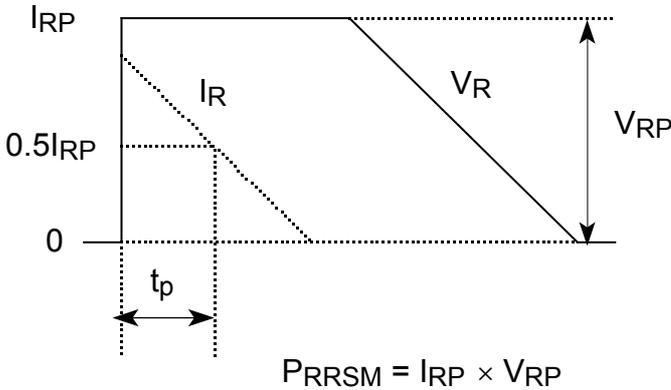
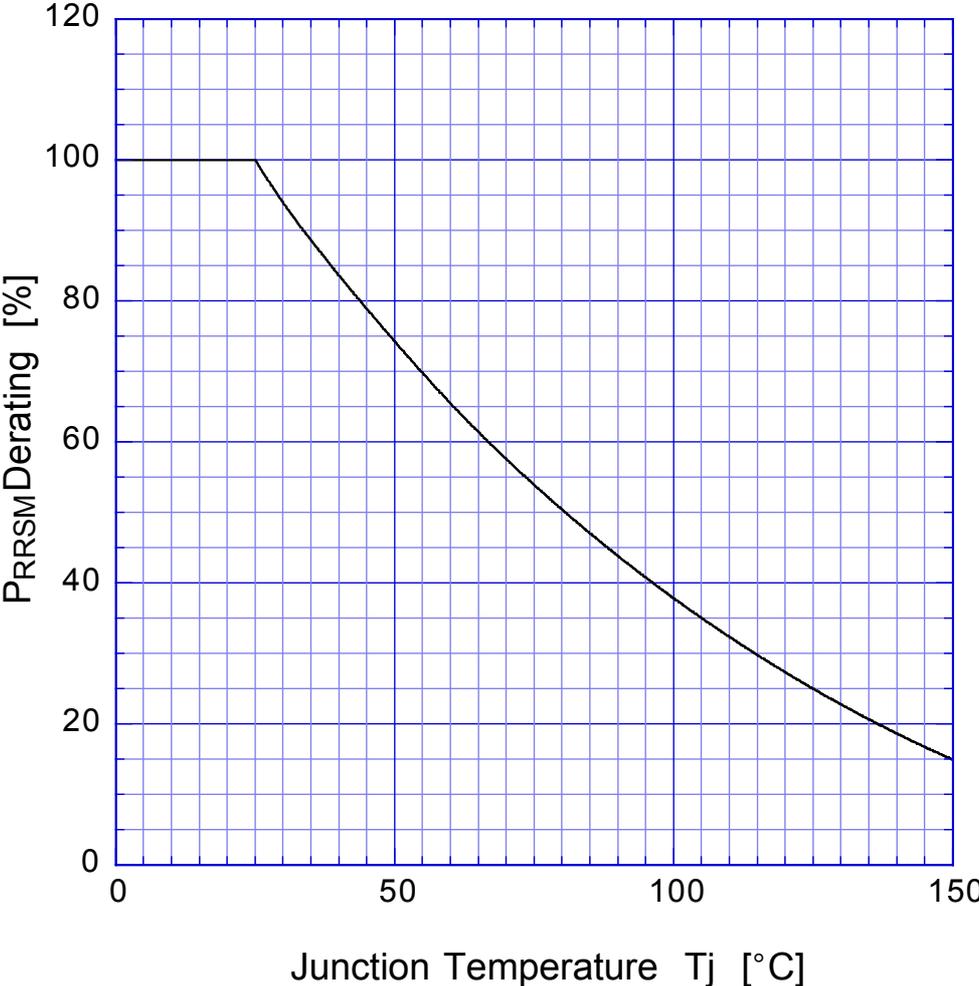


D3S6M

Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

