

SHINDENGEN

Schottky Rectifiers (SBD)

Single

SF5S6**60V 5A**

FEATURES

- $T_j 150^{\circ}\text{C}$
- P_{RRSM} avalanche guaranteed
- Fully Isolated Molding
- Dielectric strength 1.5KV guaranteed

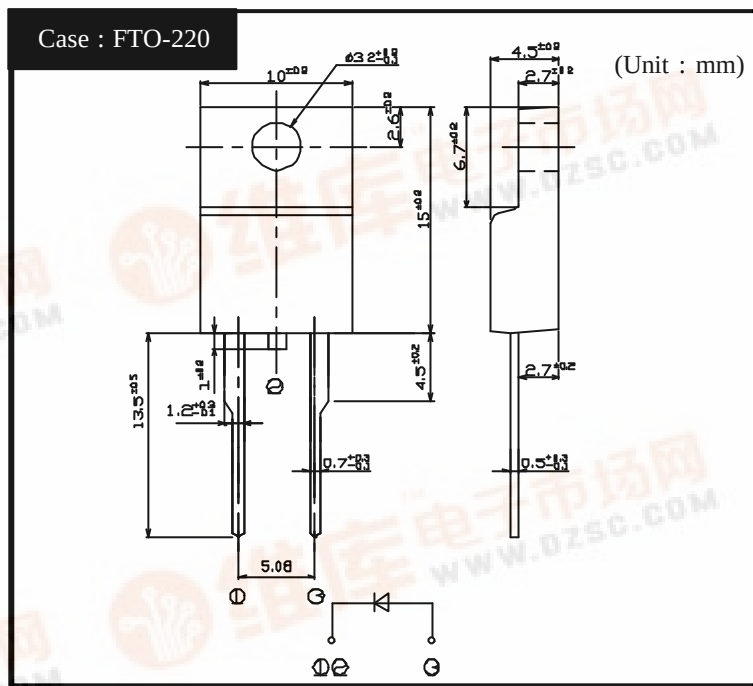
APPLICATION

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

OUTLINE DIMENSIONS

Case : FTO-220

(Unit : mm)



RATINGS

● Absolute Maximum Ratings (If not specified $T \approx 25^{\circ}\text{C}$)

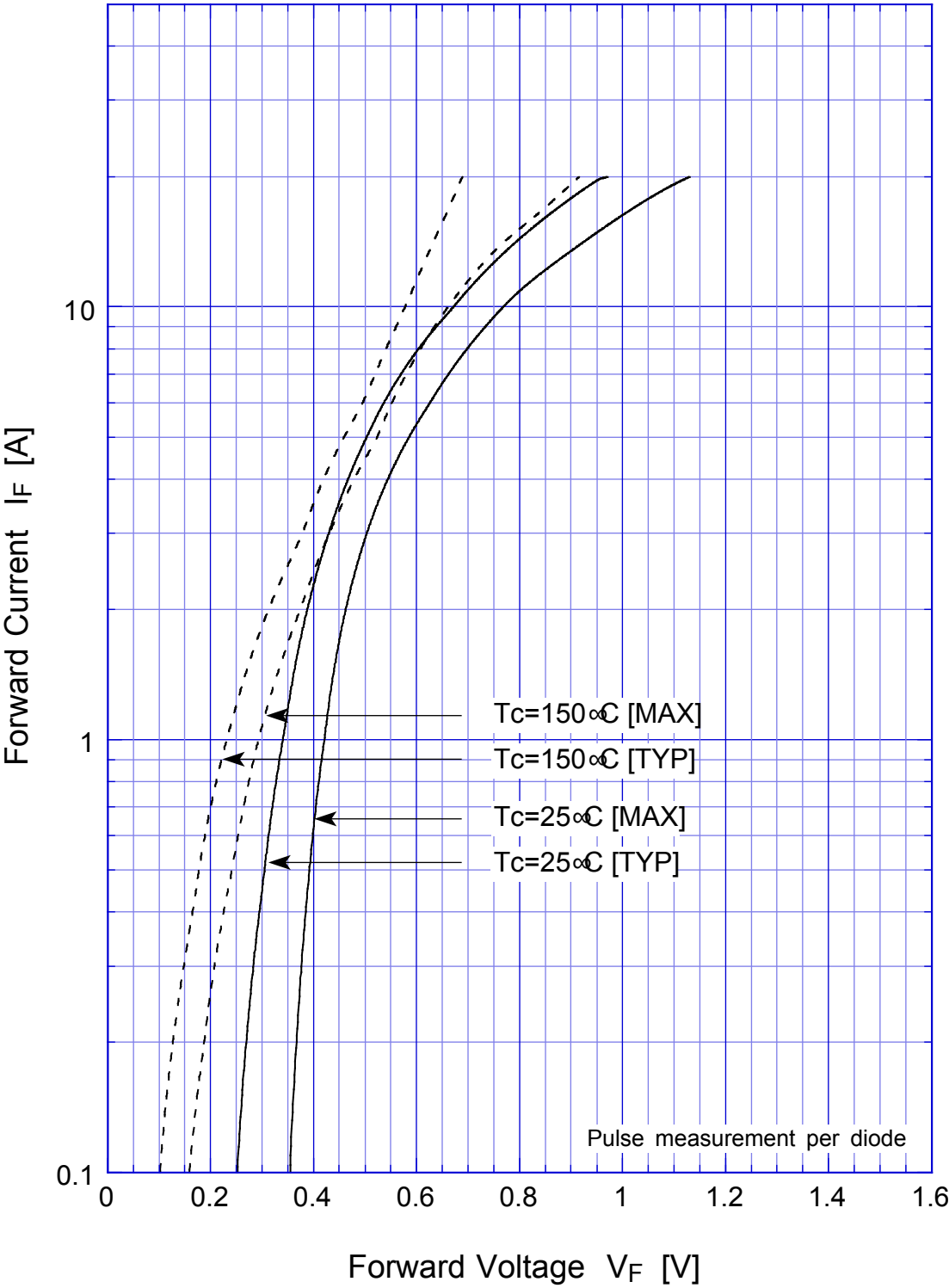
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-55~150	$^{\circ}\text{C}$
Operating Junction Temperature	T_j		150	$^{\circ}\text{C}$
Maximum Reverse Voltage	V_{RM}		60	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I_o	50Hz sine wave, R-load, $T_c=134^{\circ}\text{C}$	5	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}\text{C}$	150	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μs , $T_j=25^{\circ}\text{C}$	330	W
Dielectric Strength	V_{dis}	Terminals to case, AC 1 minute	1.5	kV
Mounting Torque	TOR	(Recommended torque 0.3N·m)	0.5	N·m

● Electrical Characteristics (If not specified $T \approx 25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=5\text{A}$ Pulse measurement	Max.0.58	V
Reverse Current	I_R	$V_R=V_{RM}$ Pulse measurement	Max. 4.5	mA
Junction Capacitance	C_j	$f=1\text{MHz}$, $V_R=10\text{V}$	Typ.260	pF
Thermal Resistance	θ_{jc}	junction to case	Max.3.5	$^{\circ}\text{C/W}$

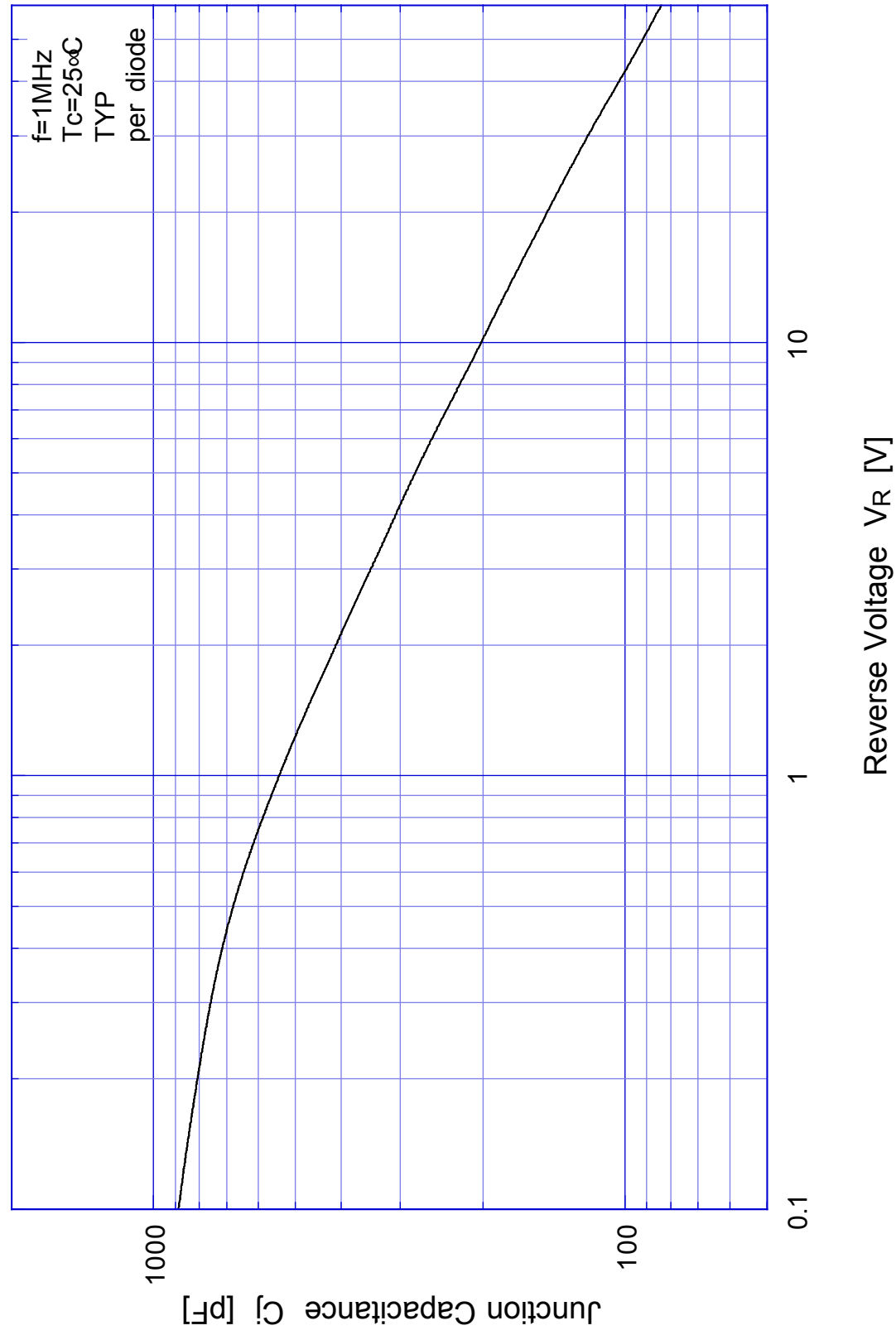
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Forward Voltage



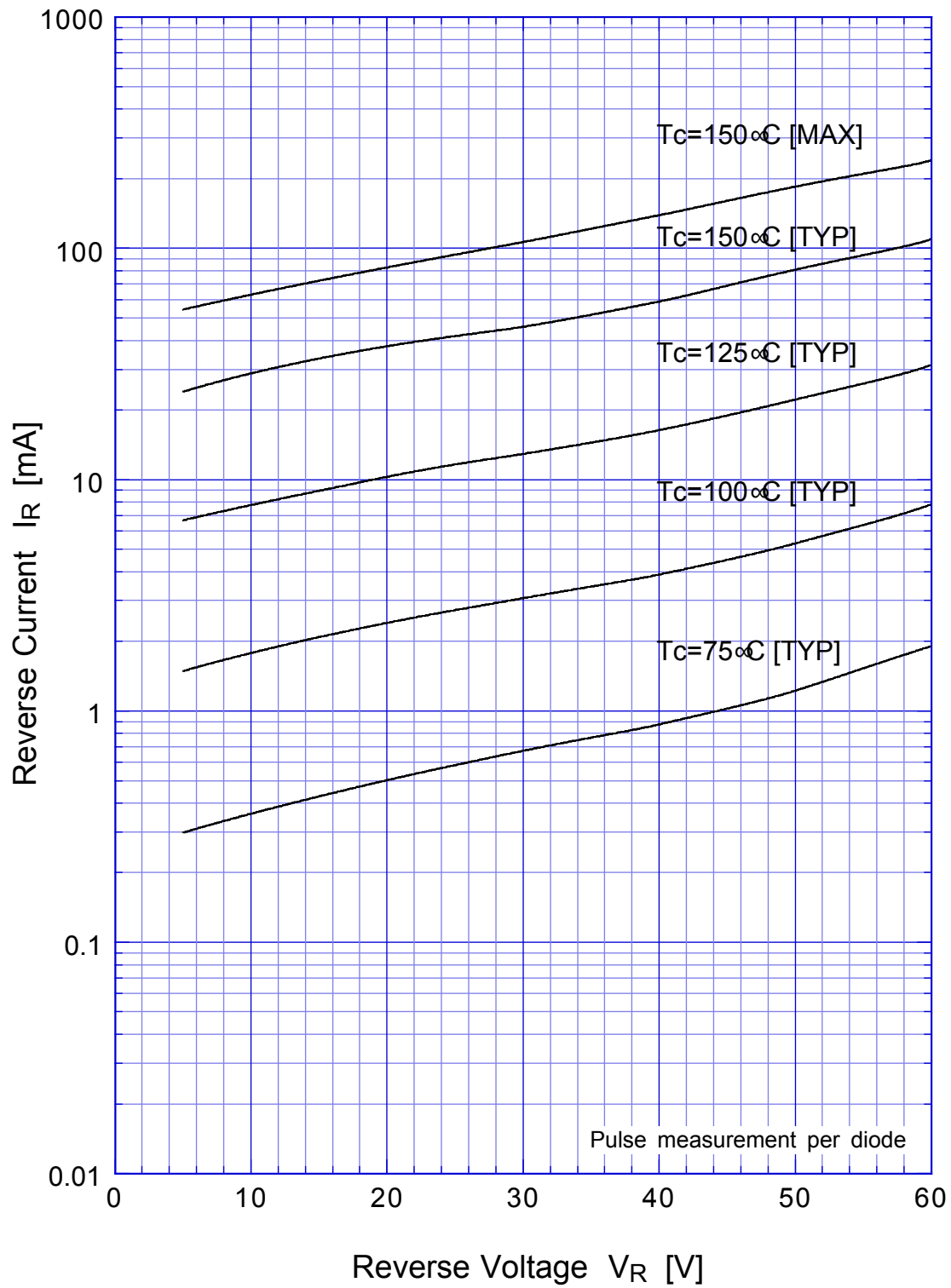
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Junction Capacitance



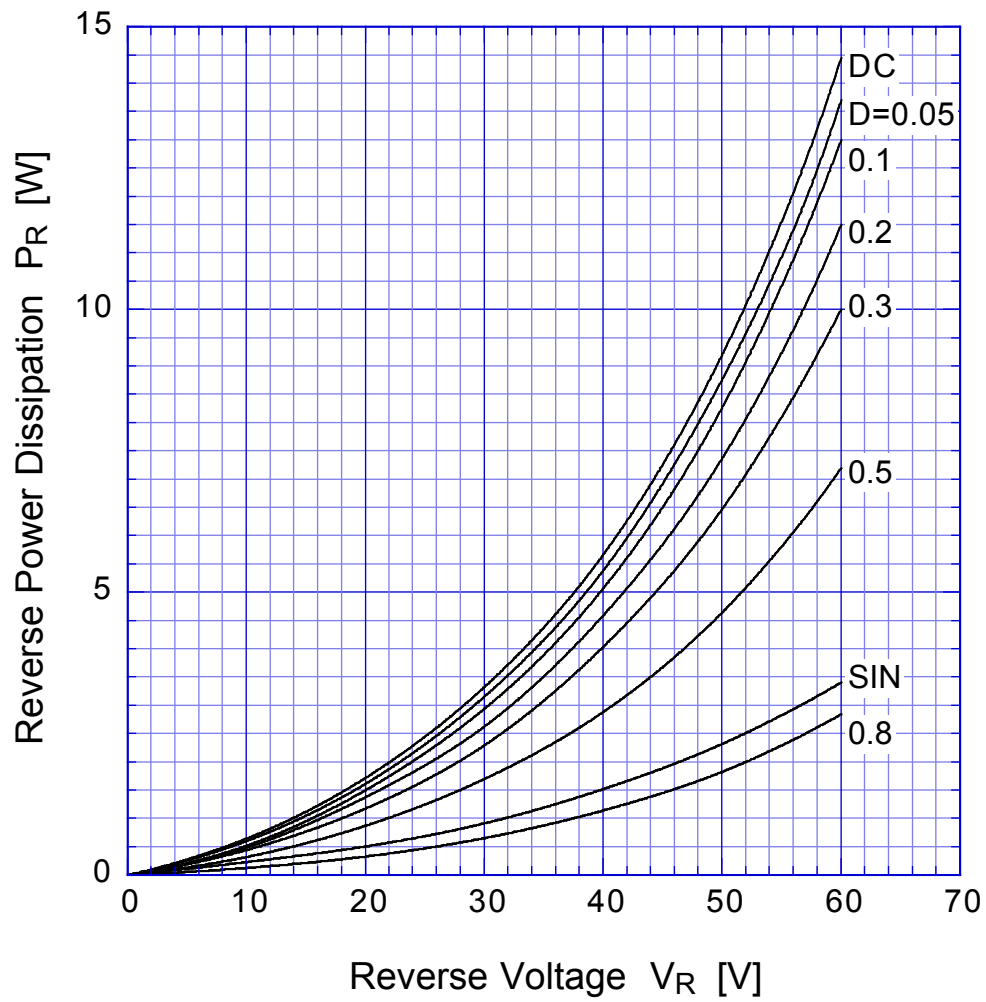
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Reverse Current

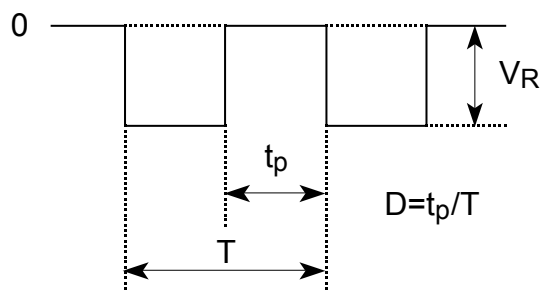


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Reverse Power Dissipation

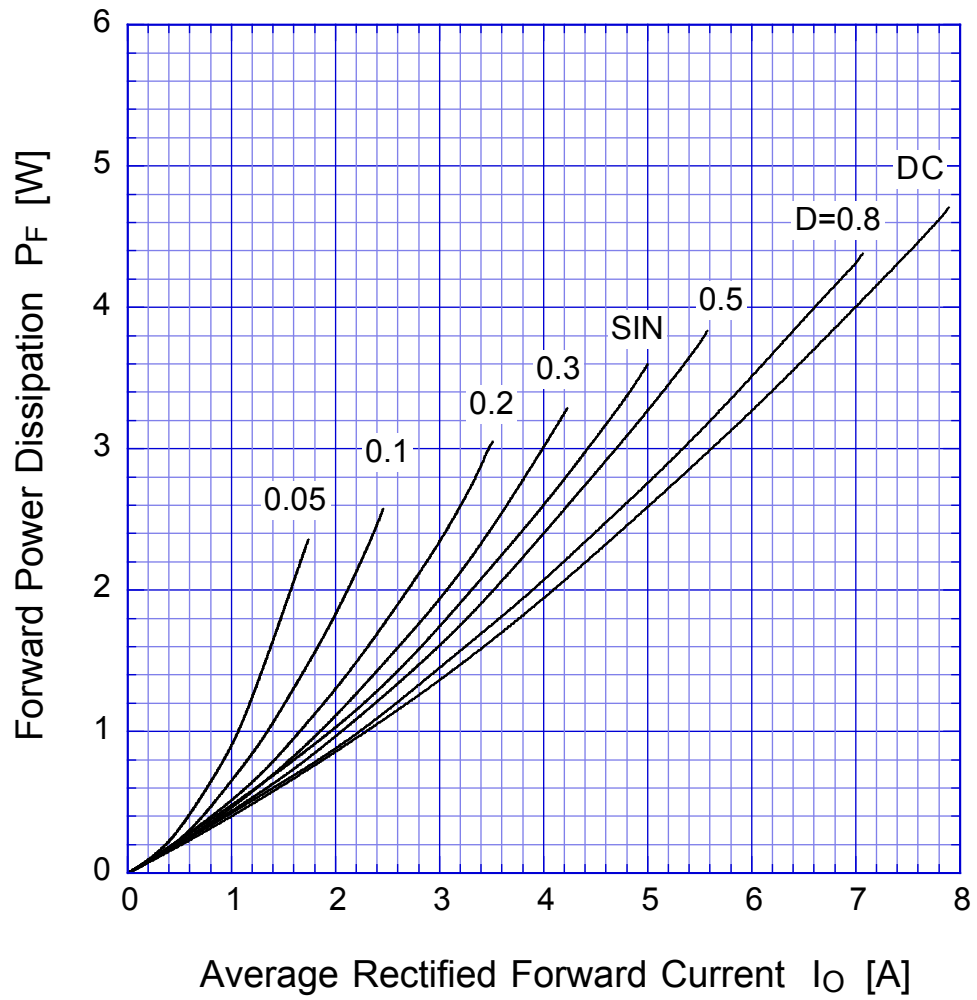


$T_j = 150^\circ\text{C}$

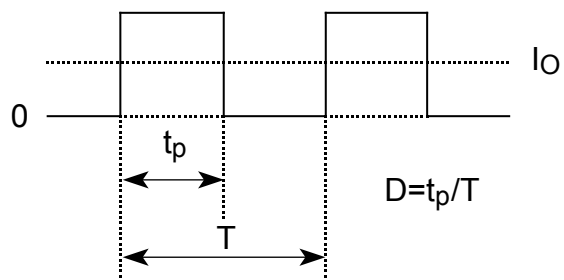


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Forward Power Dissipation

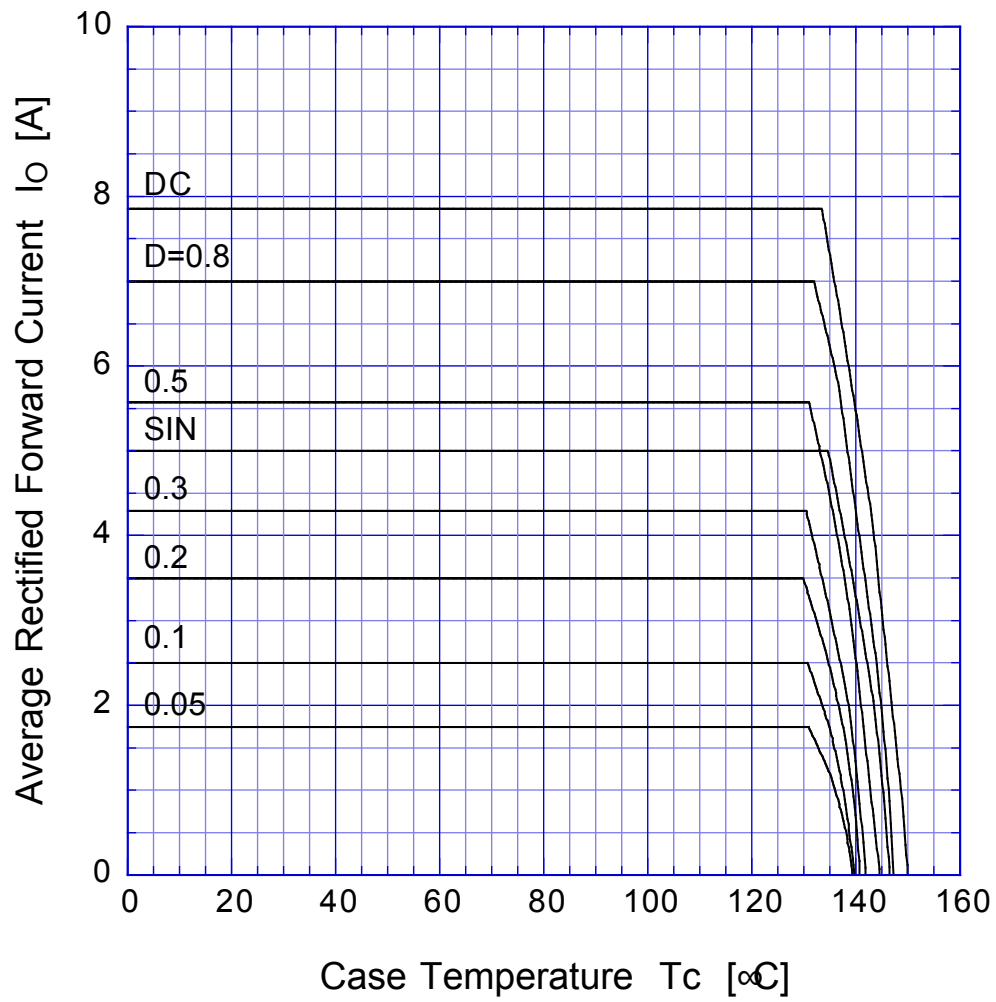


$T_j = 150^\circ\text{C}$

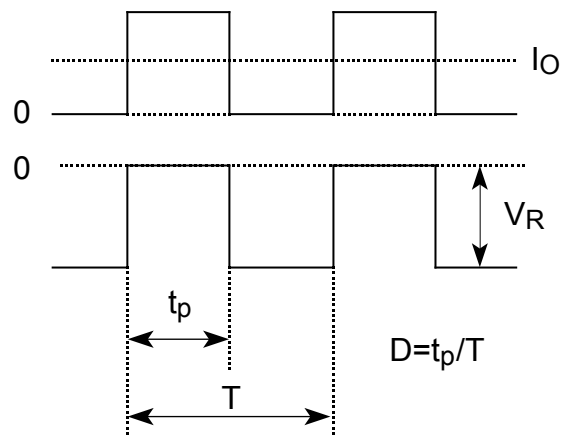


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Derating Curve

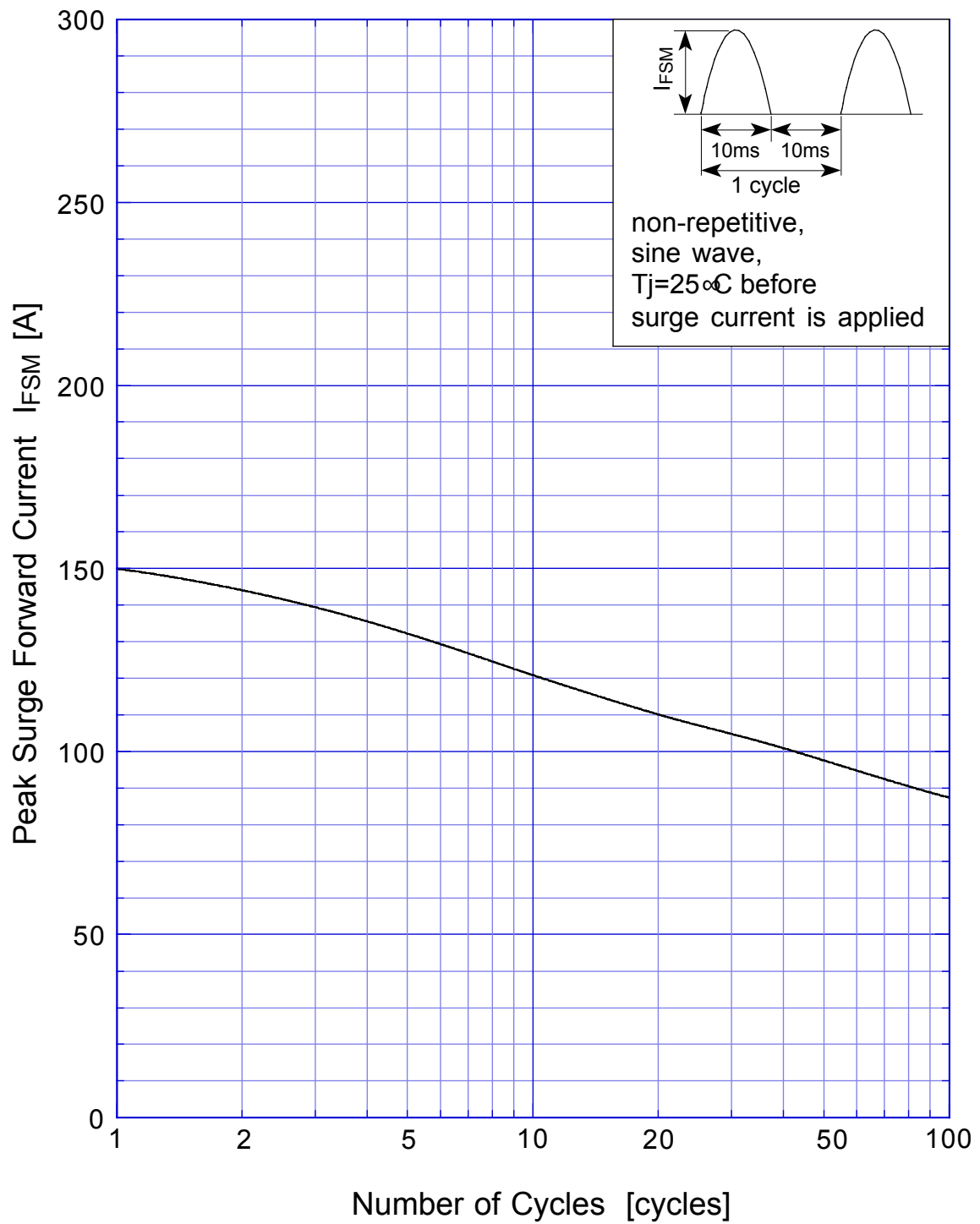


$V_R = 30V$

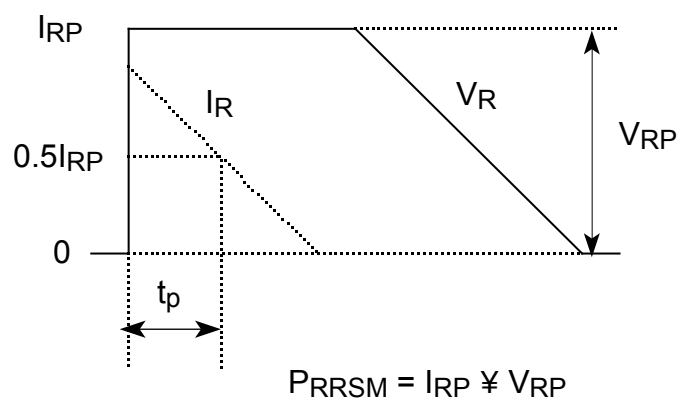
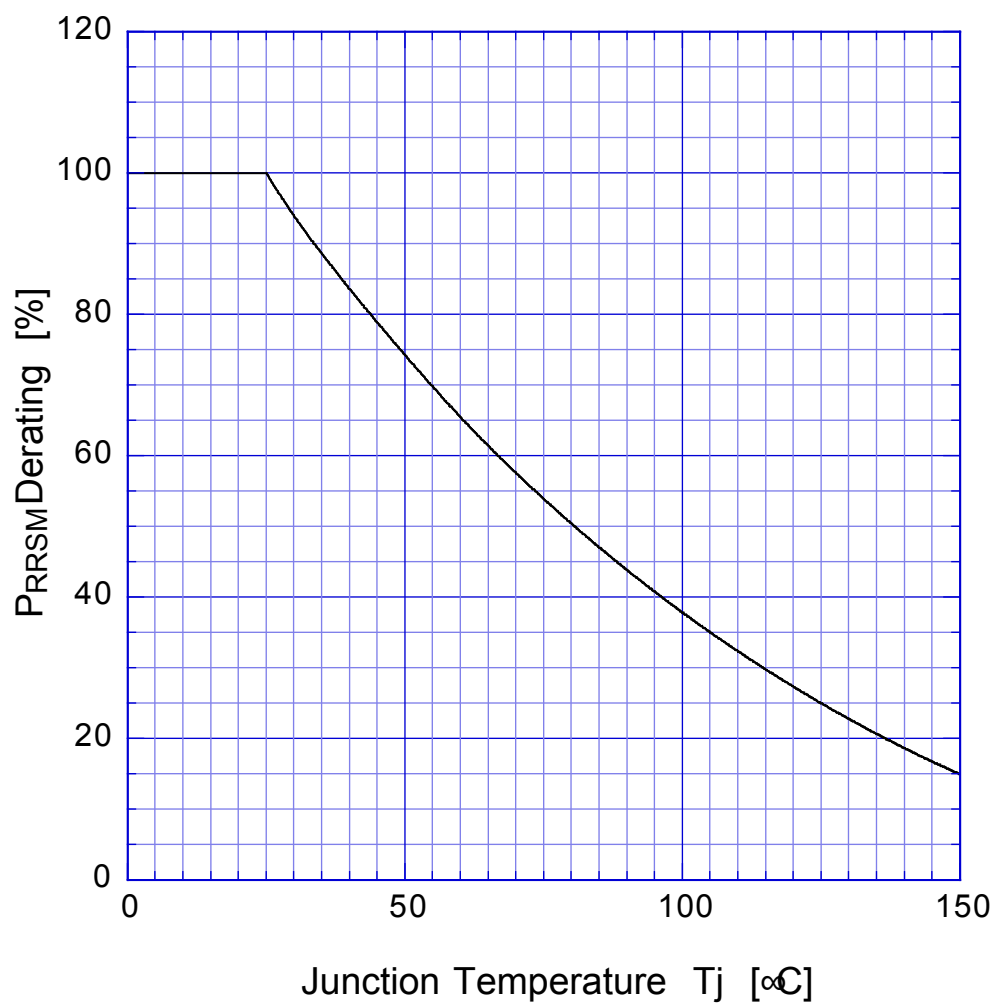


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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

