

SHINDENGEN

Schottky Rectifiers (SBD)

Dual

DF40SC4**40V 40A**

FEATURE

- SMT
- $T_j 150$
- P_{RRSM} avalanche guarantee
- High current capacity with Small Package

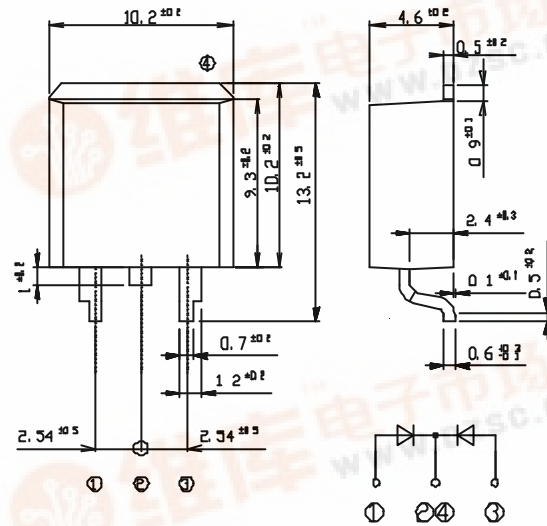
APPLICATION

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

OUTLINE DIMENSIONS

Case : STO-220

Unit : mm



RATINGS

- Absolute Maximum Ratings (If not specified $T_c=25$)

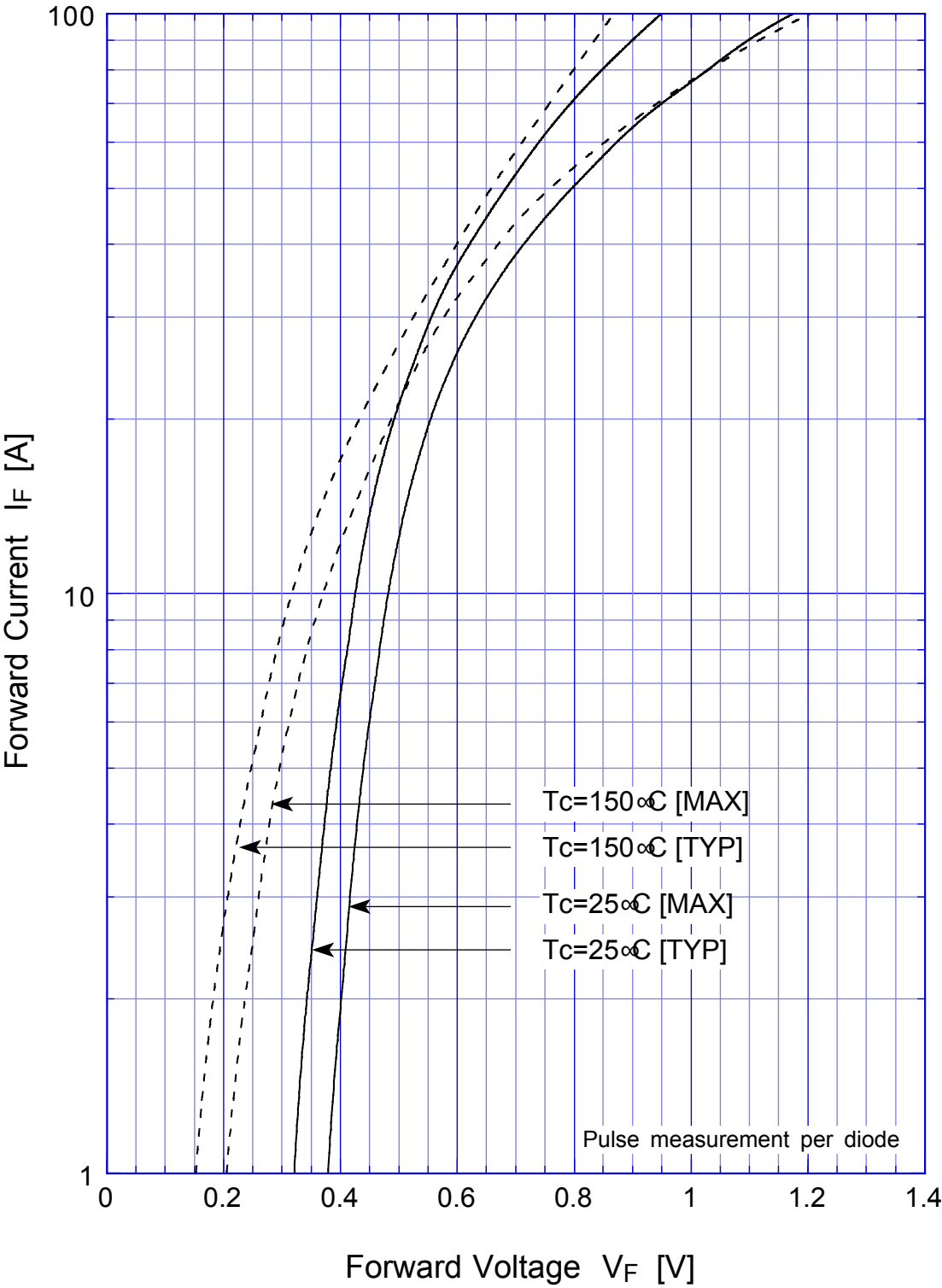
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-55 ~ 150	
Operating Junction Temperature	T_j		150	
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I_o	50Hz sine wave, R-load, Rating for each diode $I_o/2$, $T_c=106$	40	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25$	350	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Rating of per diode, $T_j=25$	1000	W

- Electrical Characteristics (If not specified $T_c=25$)

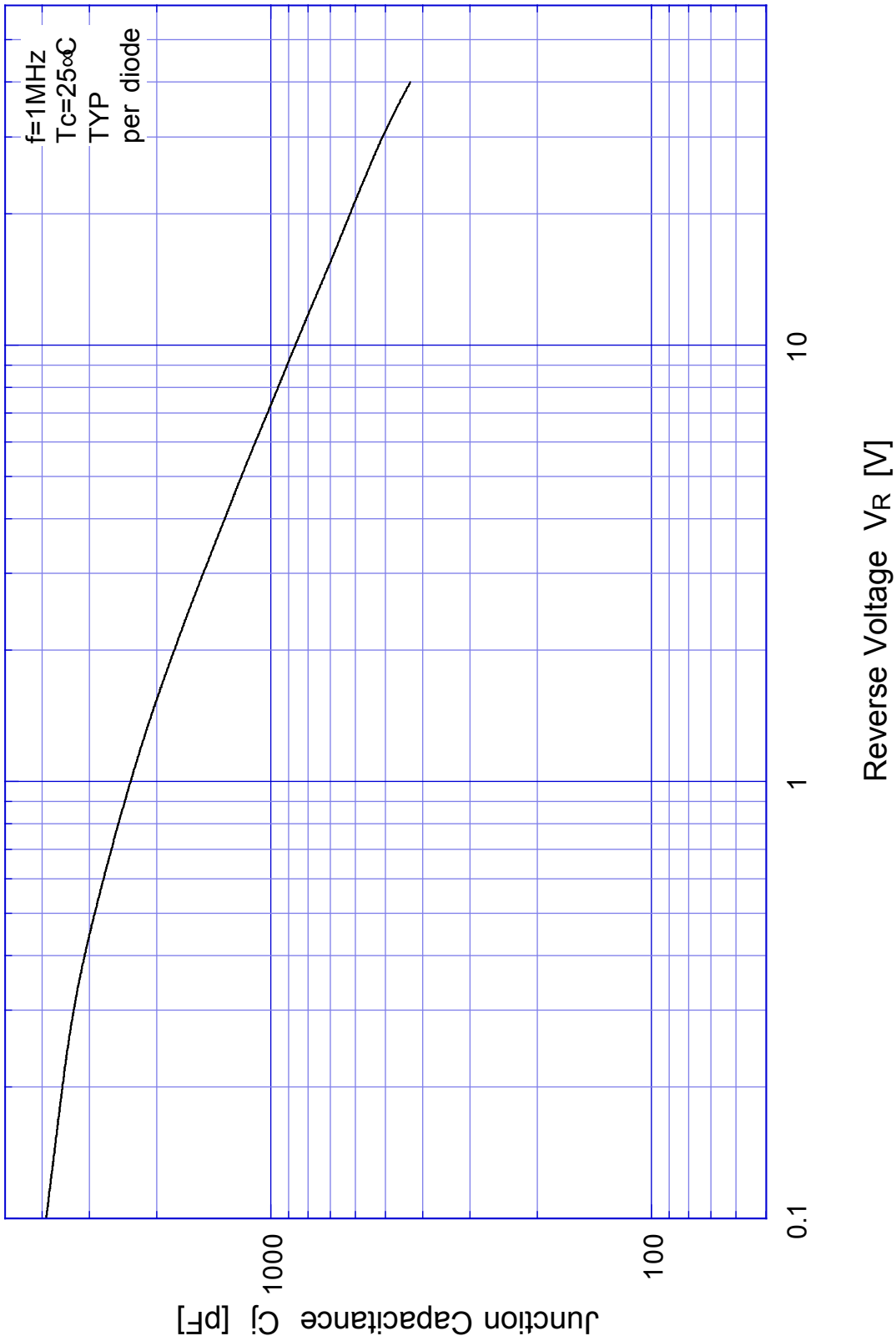
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=20A$, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.14	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$, Rating of per diode	Typ.860	pF
Thermal Resistance	θ_{jc}	junction to case	Max.1.5	/W

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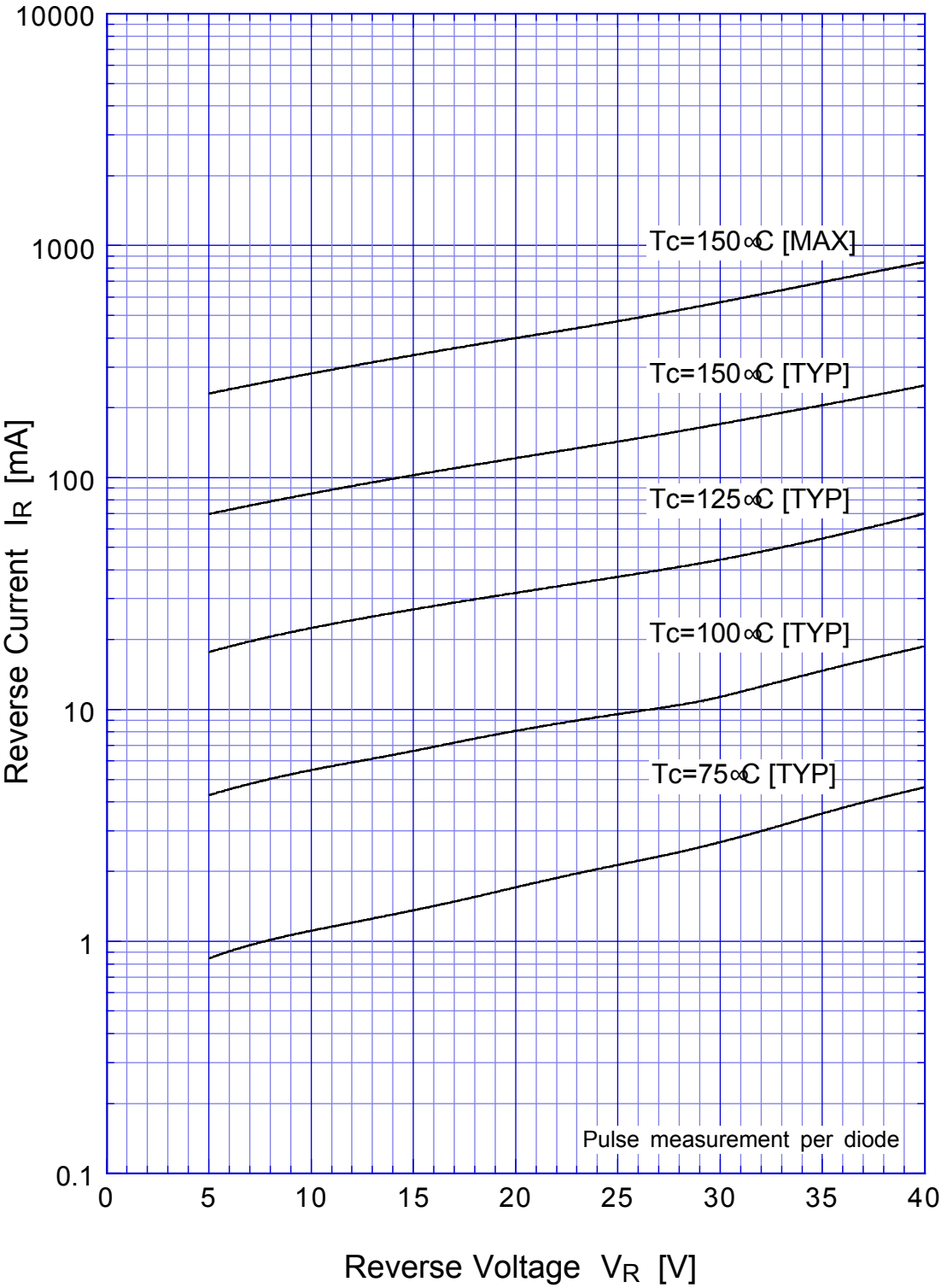
Forward Voltage



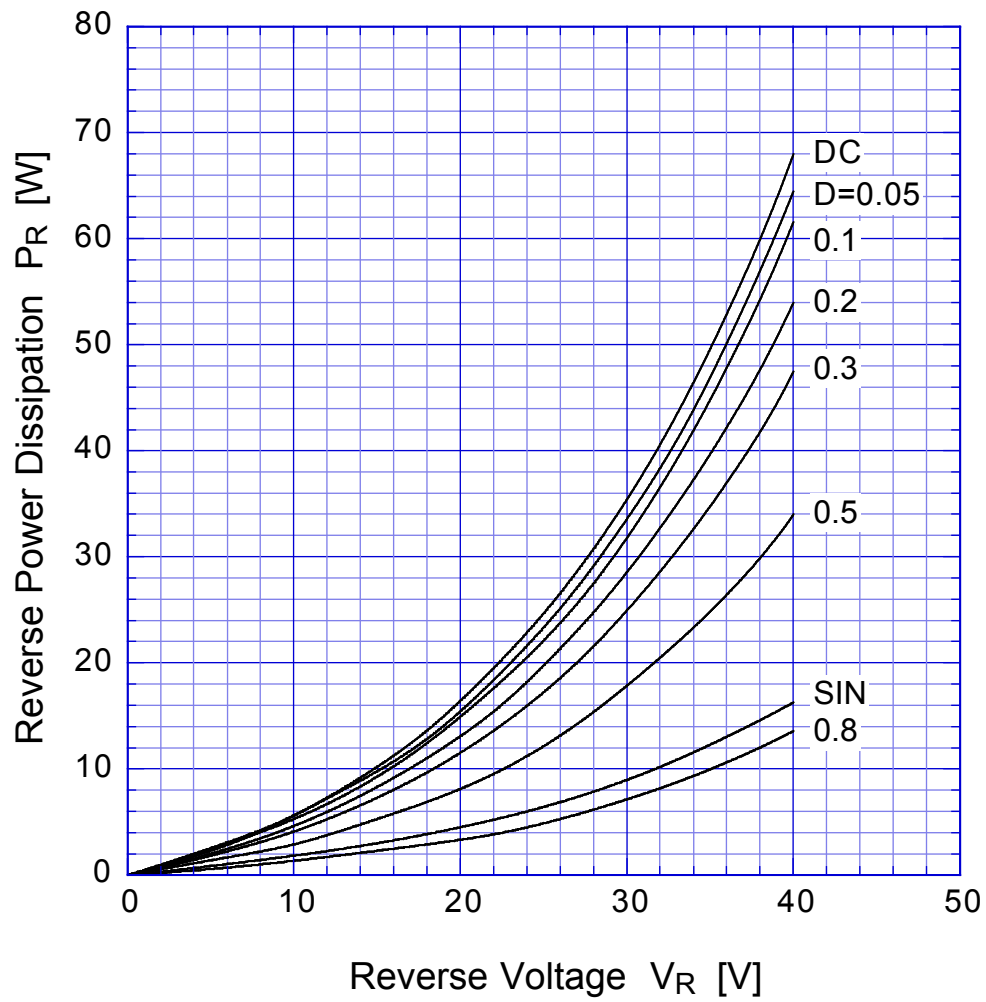
DF40SC4 Junction Capacitance



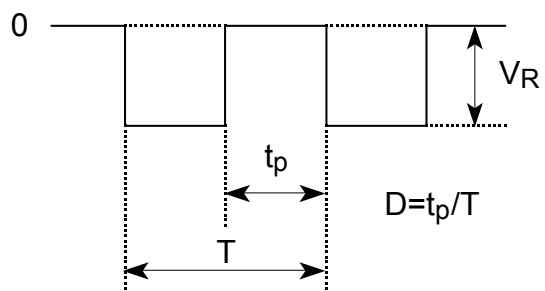
DF40SC4 Reverse Current



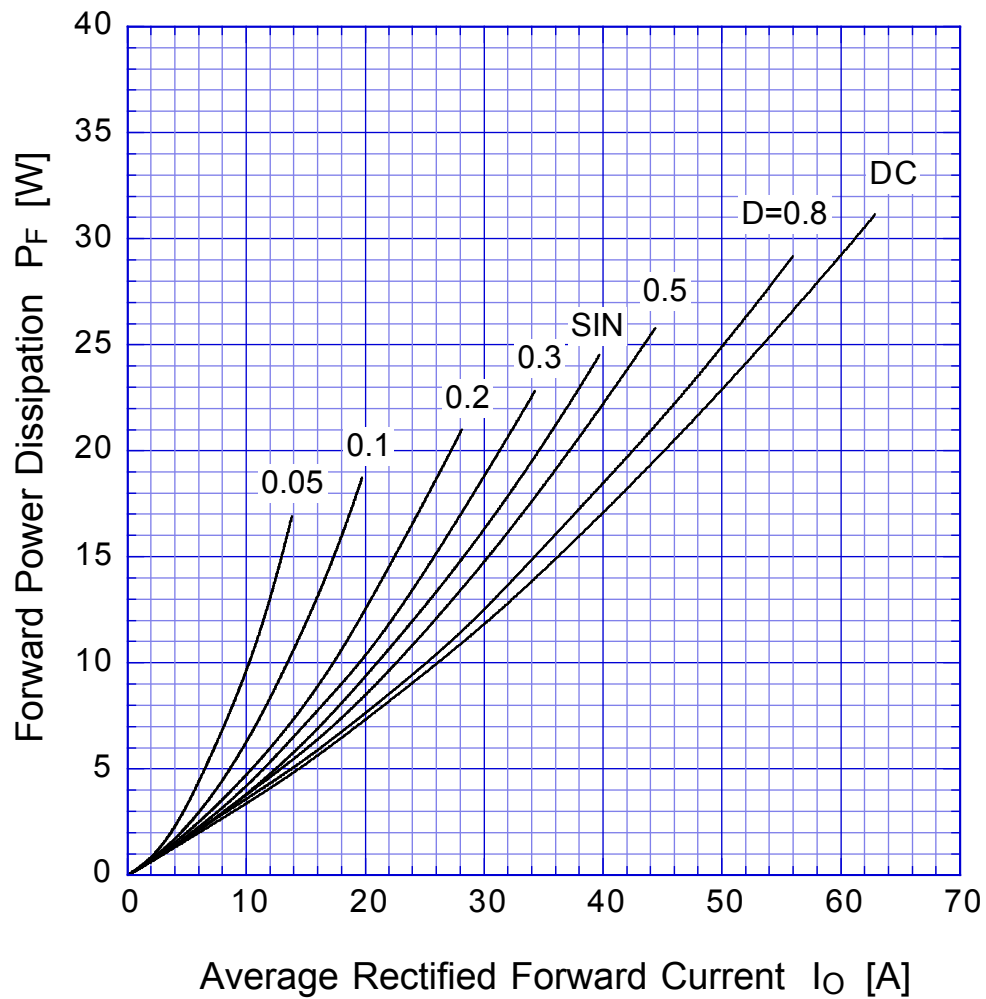
DF40SC4 Reverse Power Dissipation



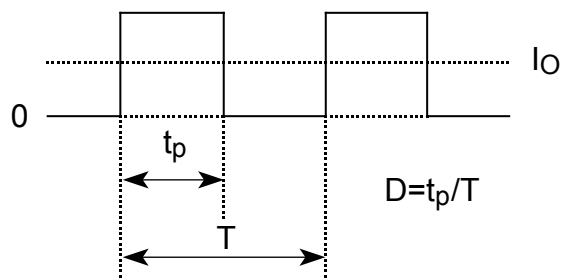
$T_j = 150^\circ\text{C}$



DF40SC4 Forward Power Dissipation

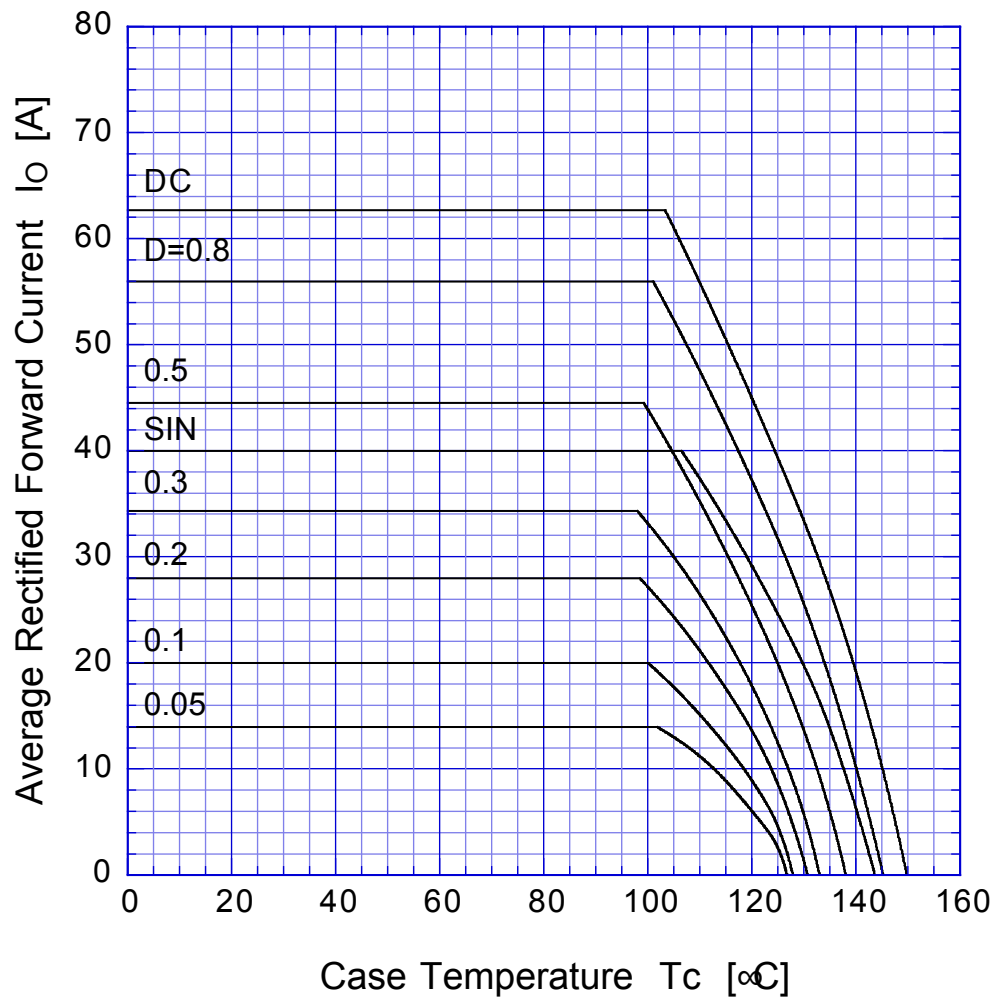


$T_j = 150^\circ\text{C}$

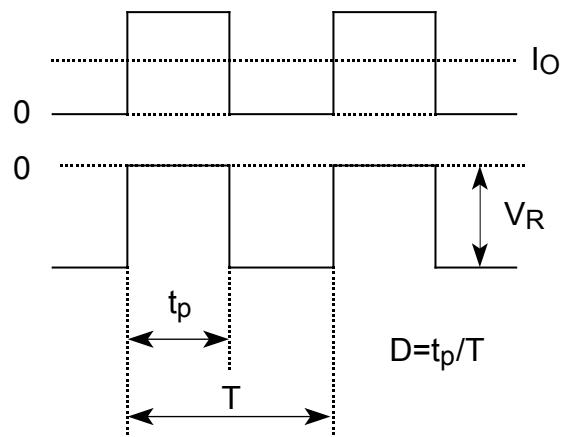


DF40SC4

Derating Curve

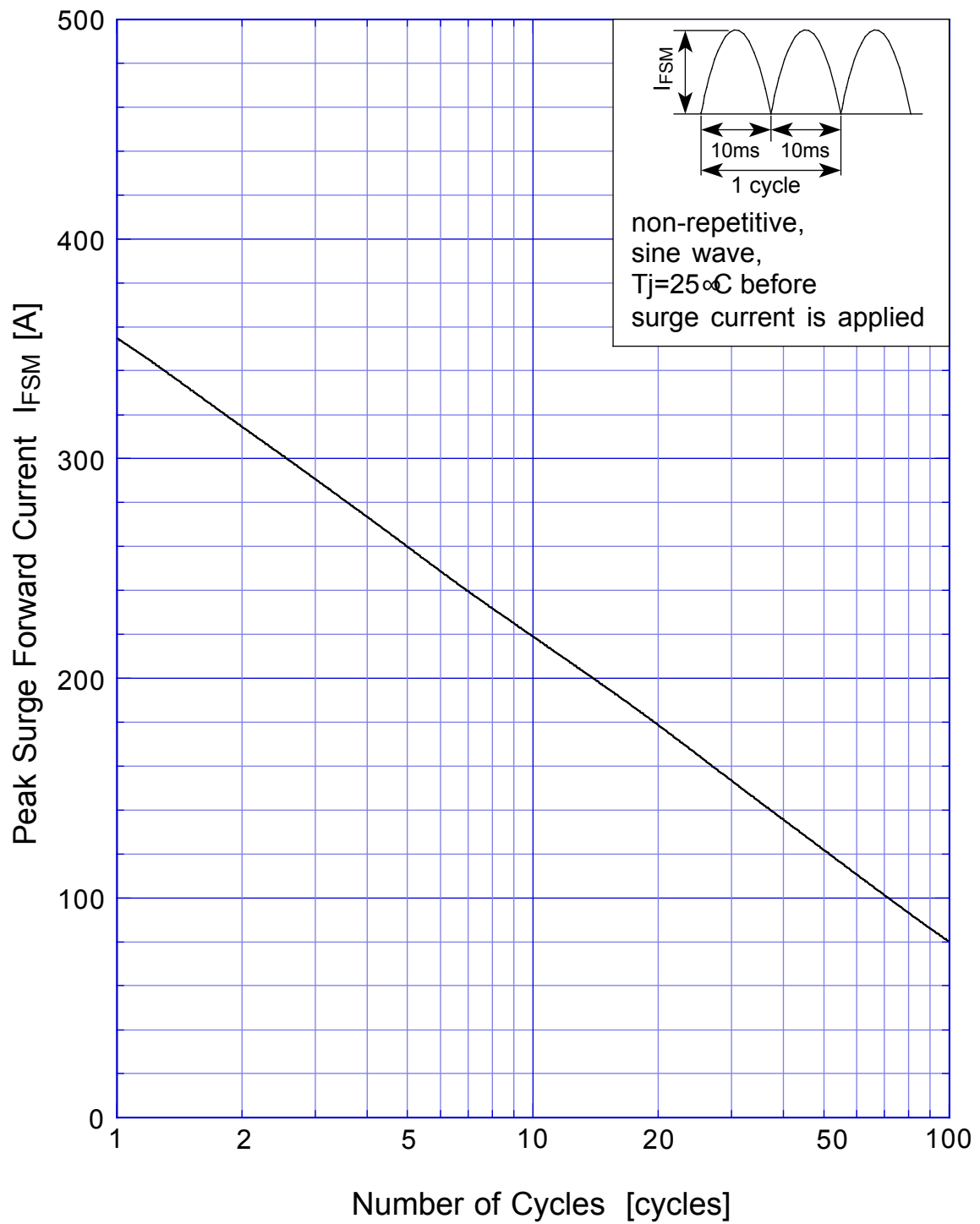


$V_R = 20\text{V}$

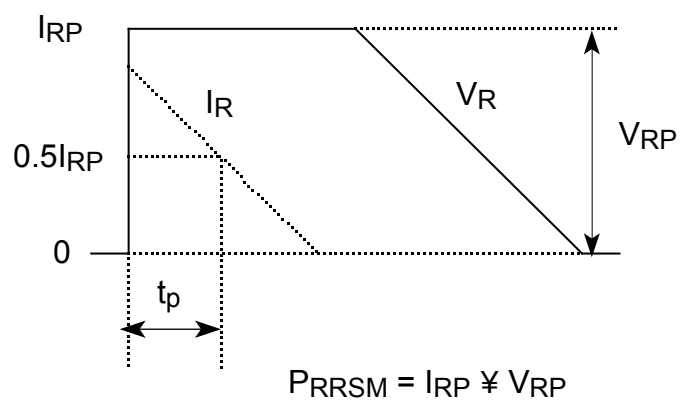
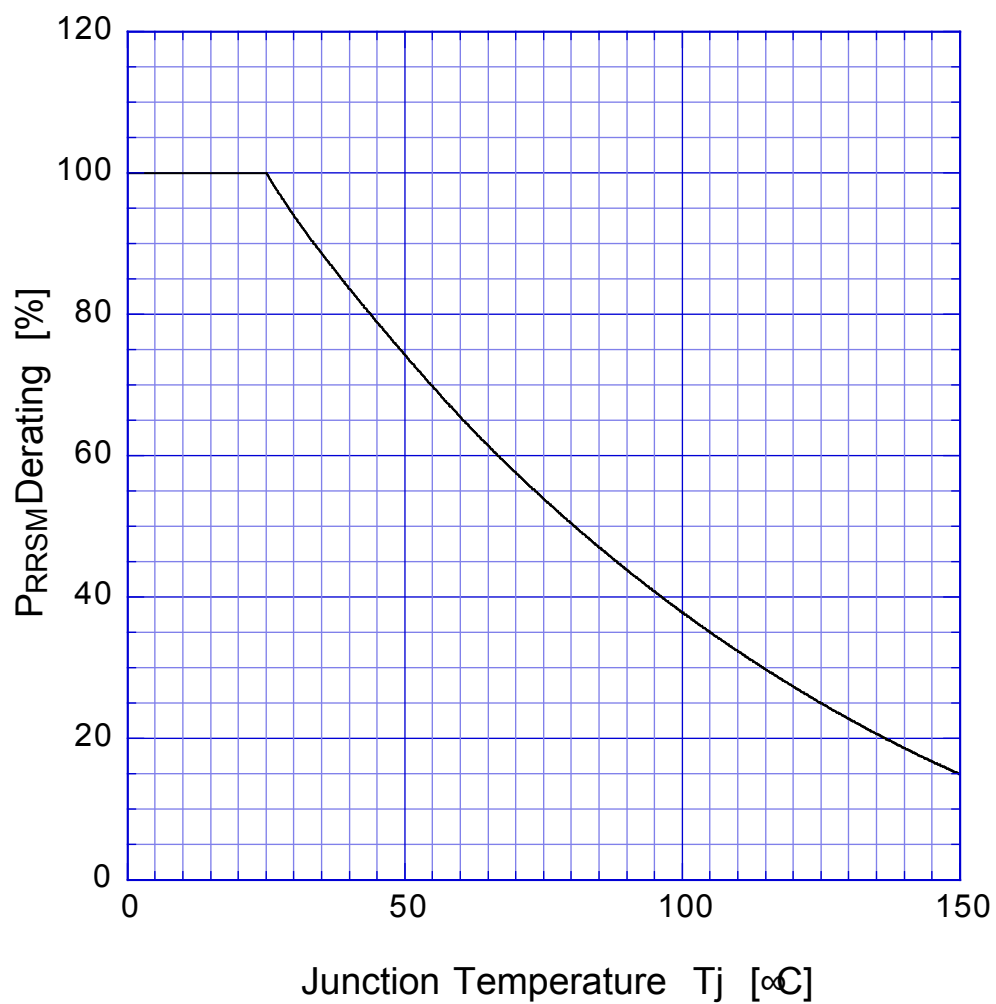


DF40SC4

Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

