

# SHINDENGEN

## Schottky Rectifiers (SBD)

Dual

# DF40SC4

## 40V 40A

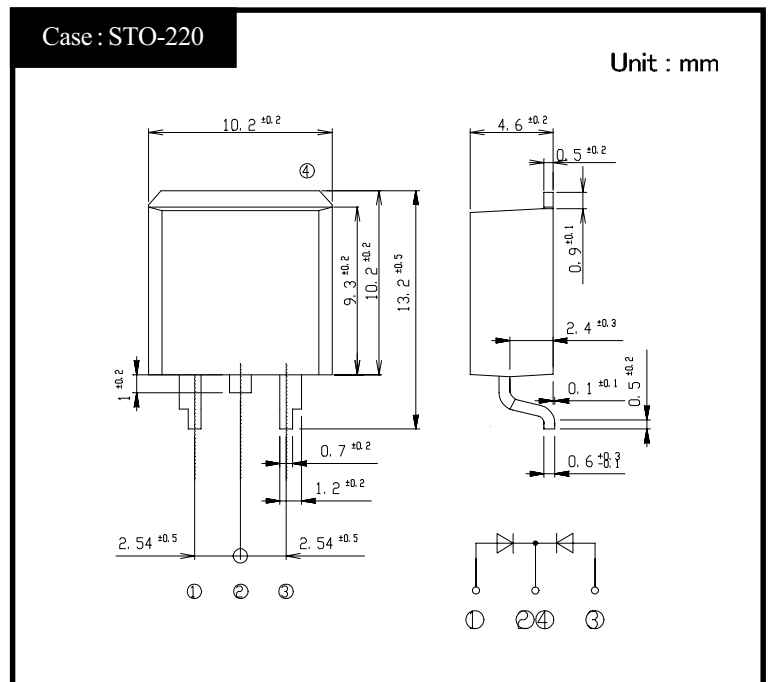
### FEATURE

- SMT
- Tj150°C
- P<sub>RRSM</sub> avalanche guarantee
- High current capacity with Small Package

### APPLICATION

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

### OUTLINE DIMENSIONS



### RATINGS

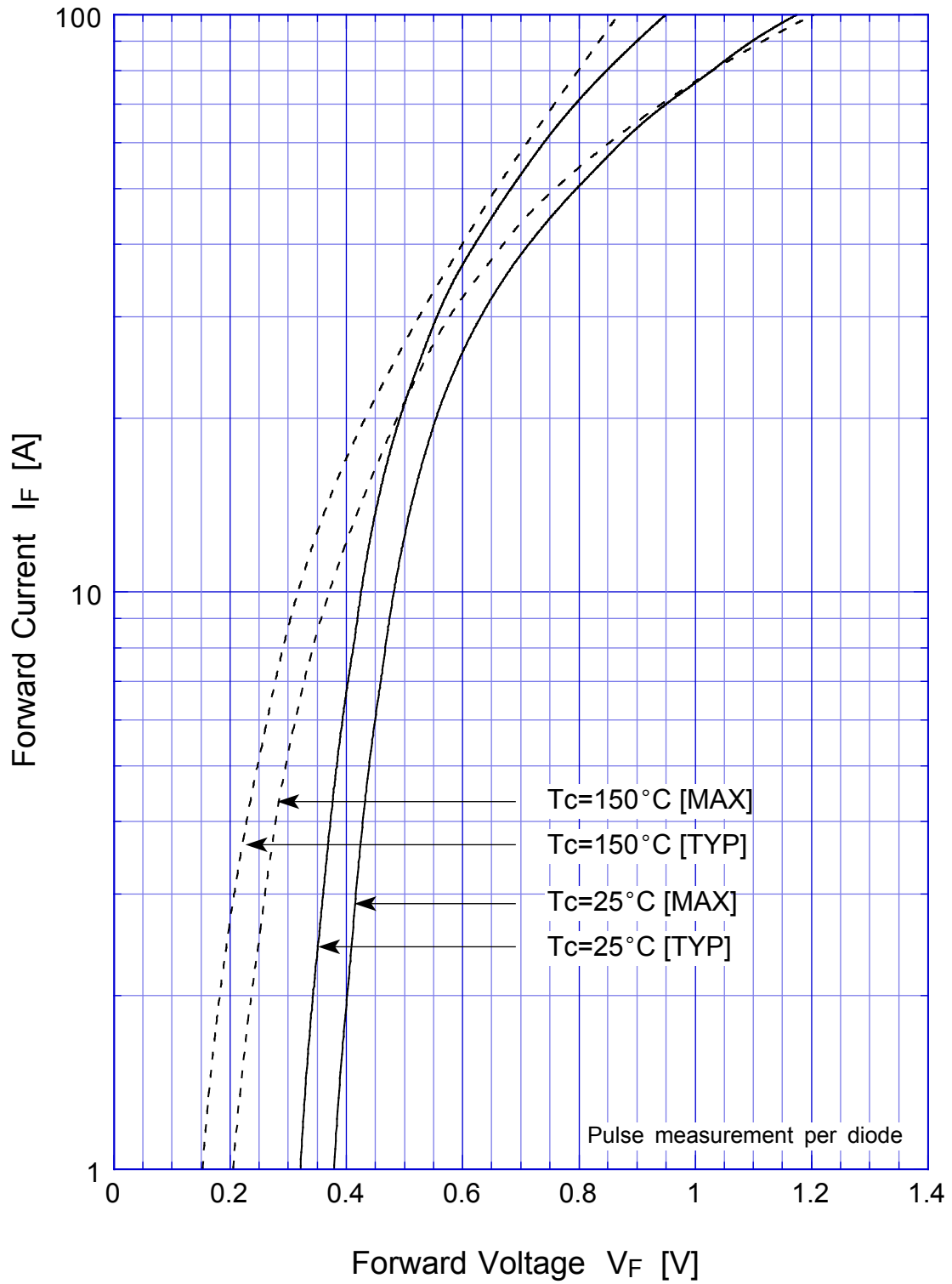
#### ● Absolute Maximum Ratings (If not specified T<sub>c</sub>=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-55~150	°C
Operating Junction Temperature	T <sub>j</sub>		150	°C
Maximum Reverse Voltage	V <sub>RM</sub>		40	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, Rating for each diode I <sub>O</sub> /2, T <sub>c</sub> =106°C	40	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	350	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μs, Rating of per diode, T <sub>j</sub> =25°C	1000	W

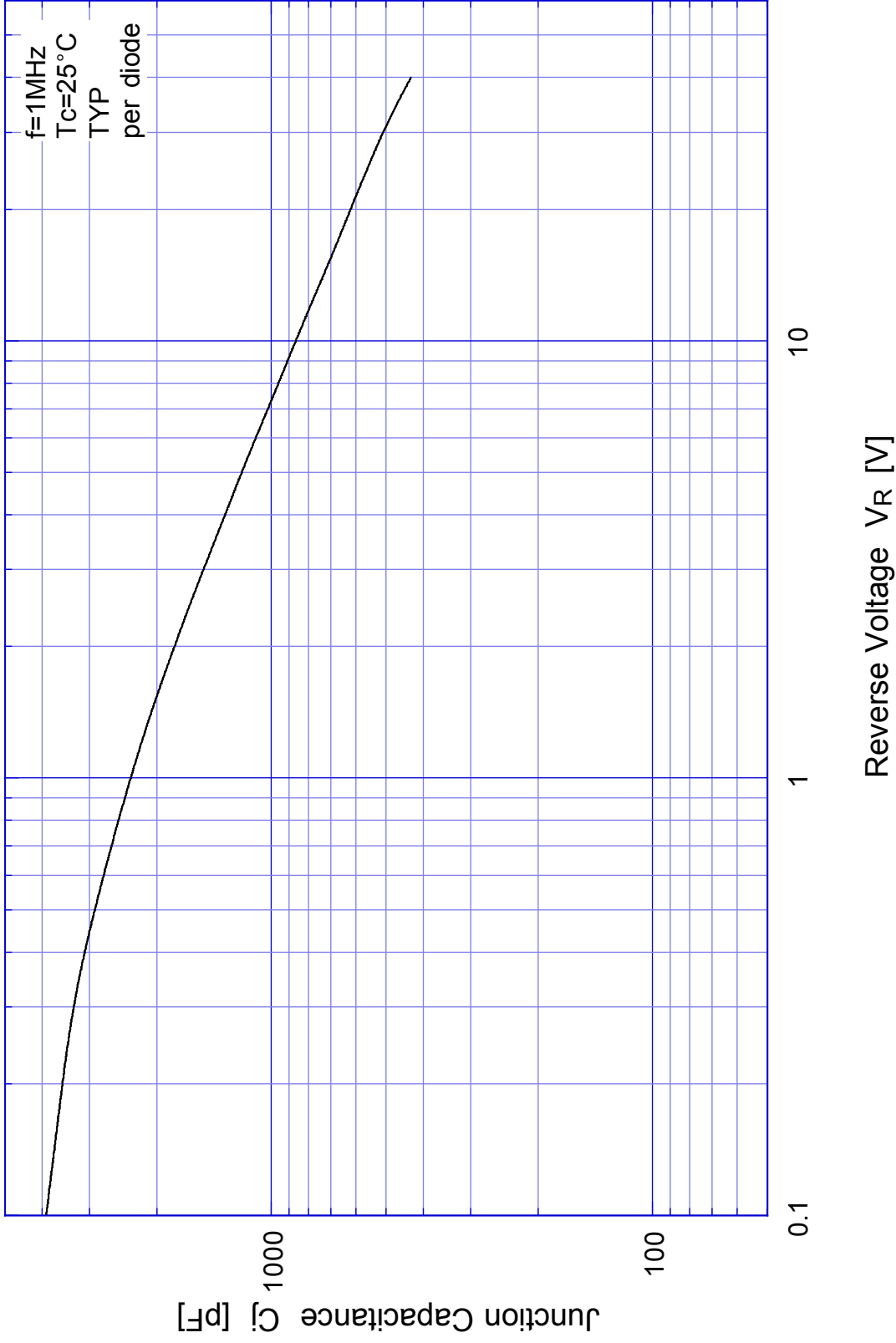
#### ● Electrical Characteristics (If not specified T<sub>c</sub>=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.14	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V, Rating of per diode	Typ.860	pF
Thermal Resistance	θ <sub>jc</sub>	junction to case	Max.1.5	°C/W

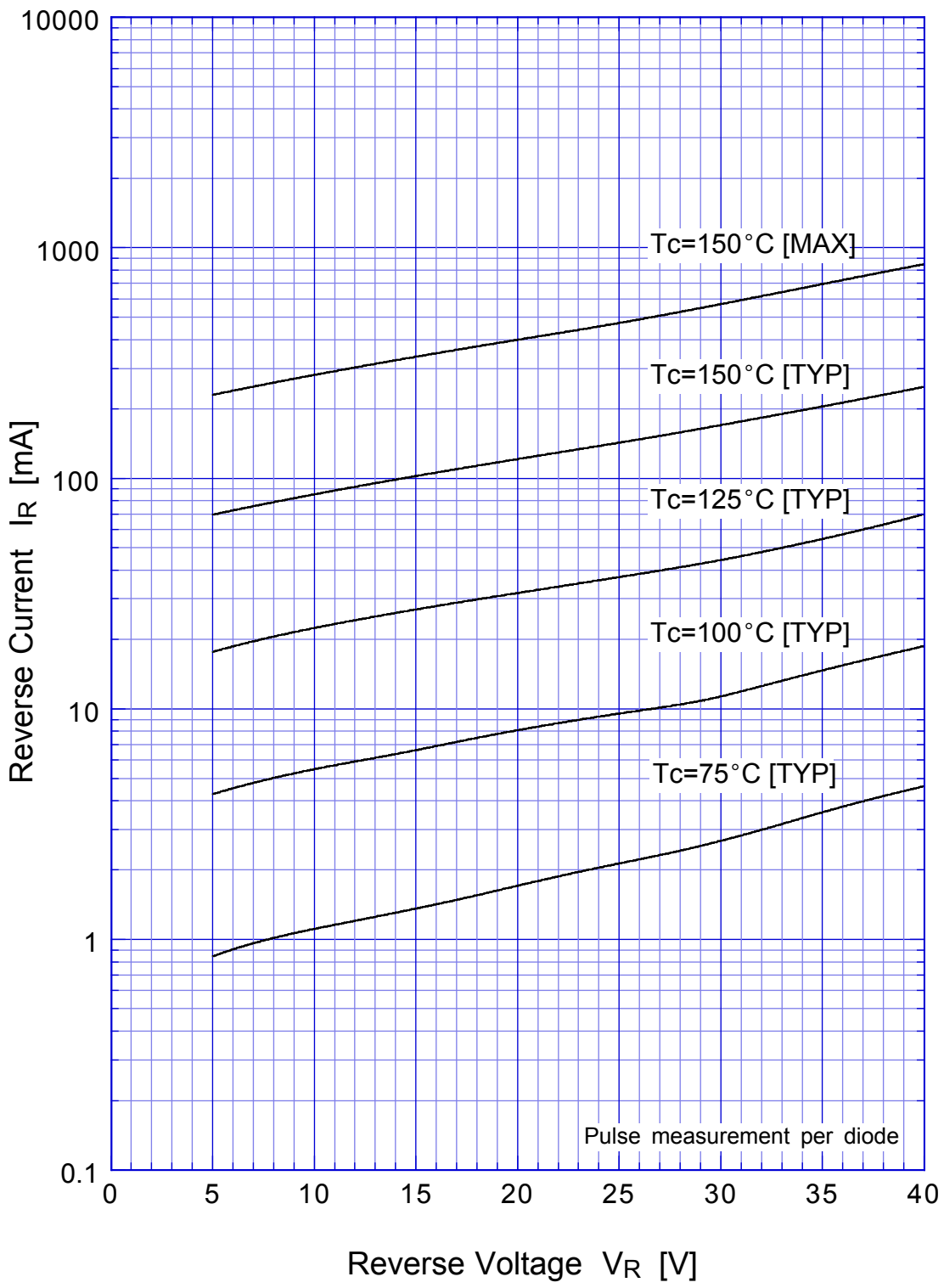
# DF40SC4 Forward Voltage



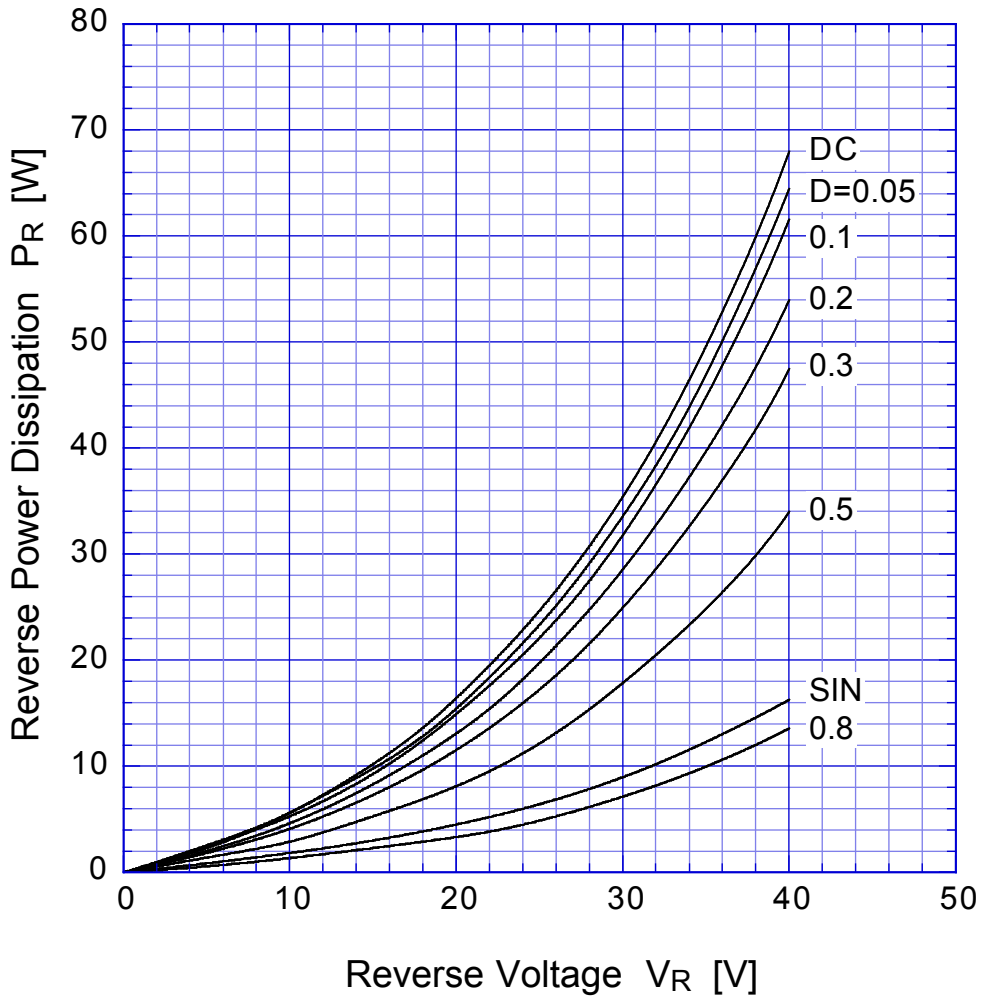
# DF40SC4 Junction Capacitance



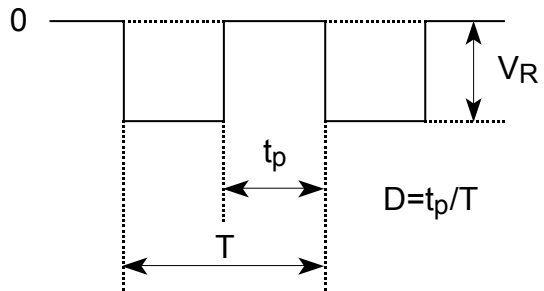
# DF40SC4 Reverse Current



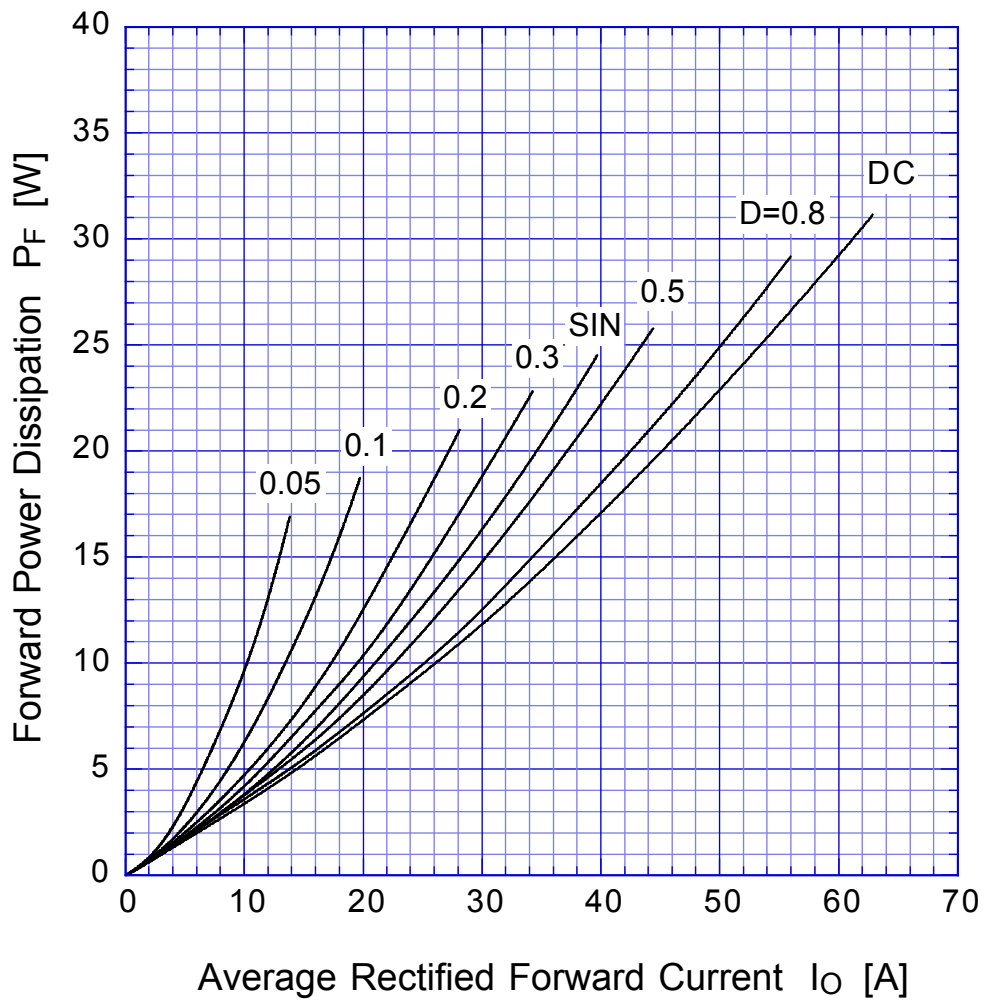
# DF40SC4 Reverse Power Dissipation



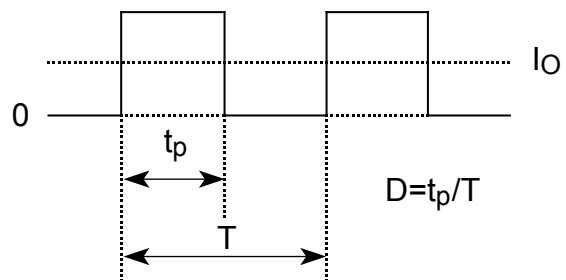
$T_j = 150^\circ\text{C}$



# DF40SC4 Forward Power Dissipation

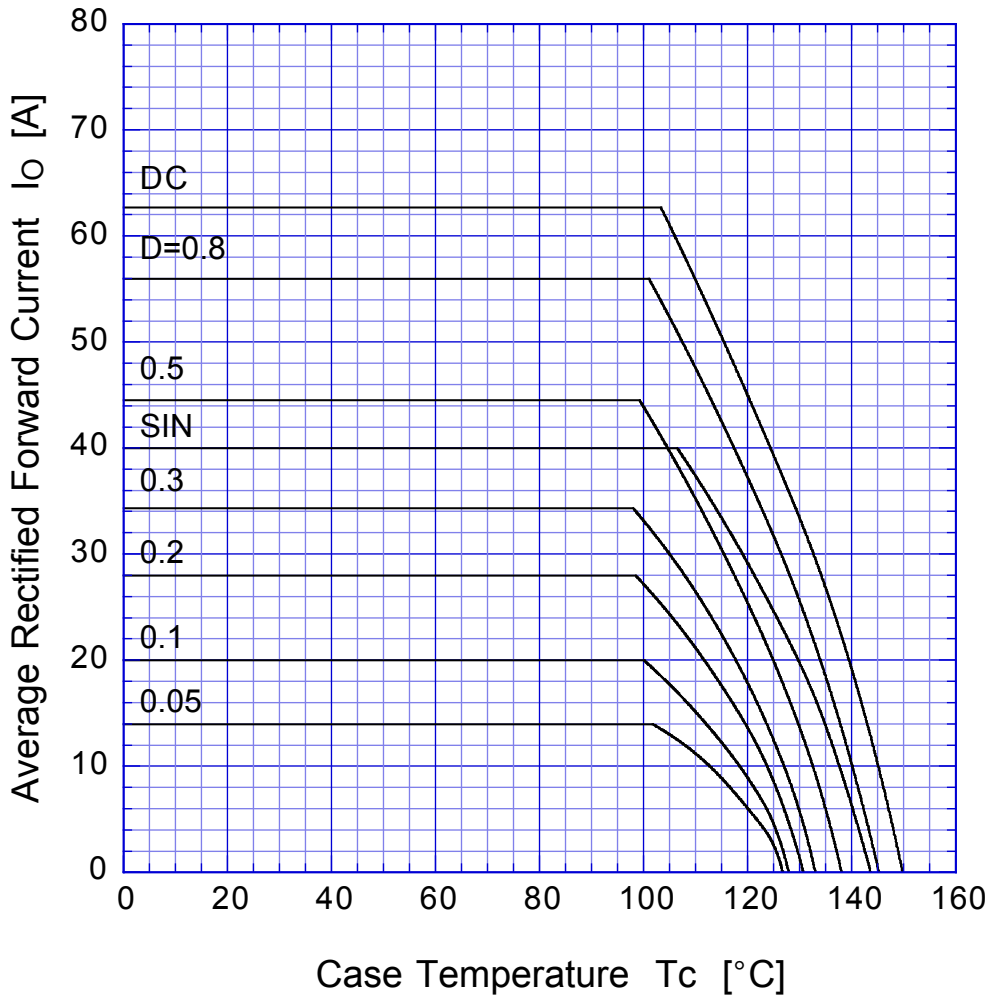


$T_j = 150^\circ\text{C}$



# DF40SC4

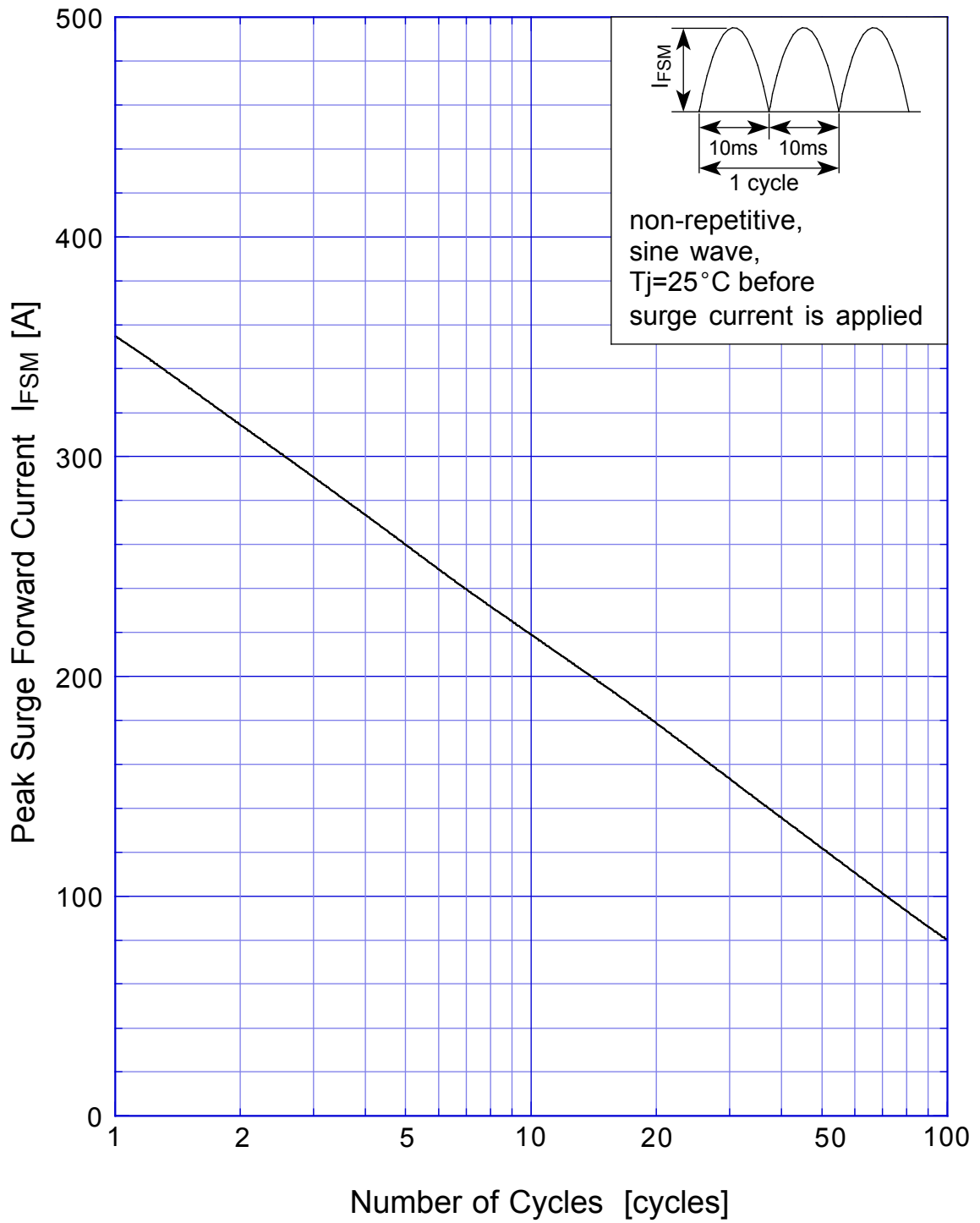
# Derating Curve



$V_R = 20V$

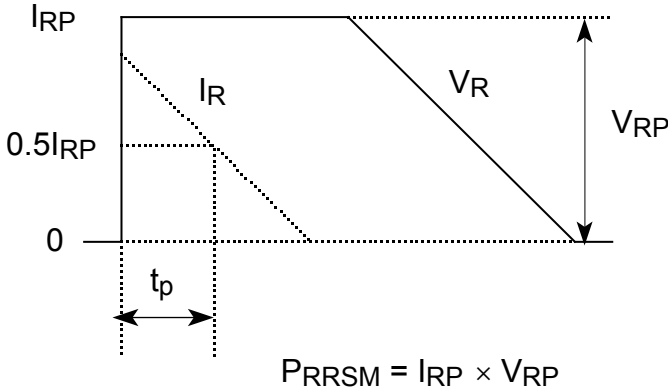
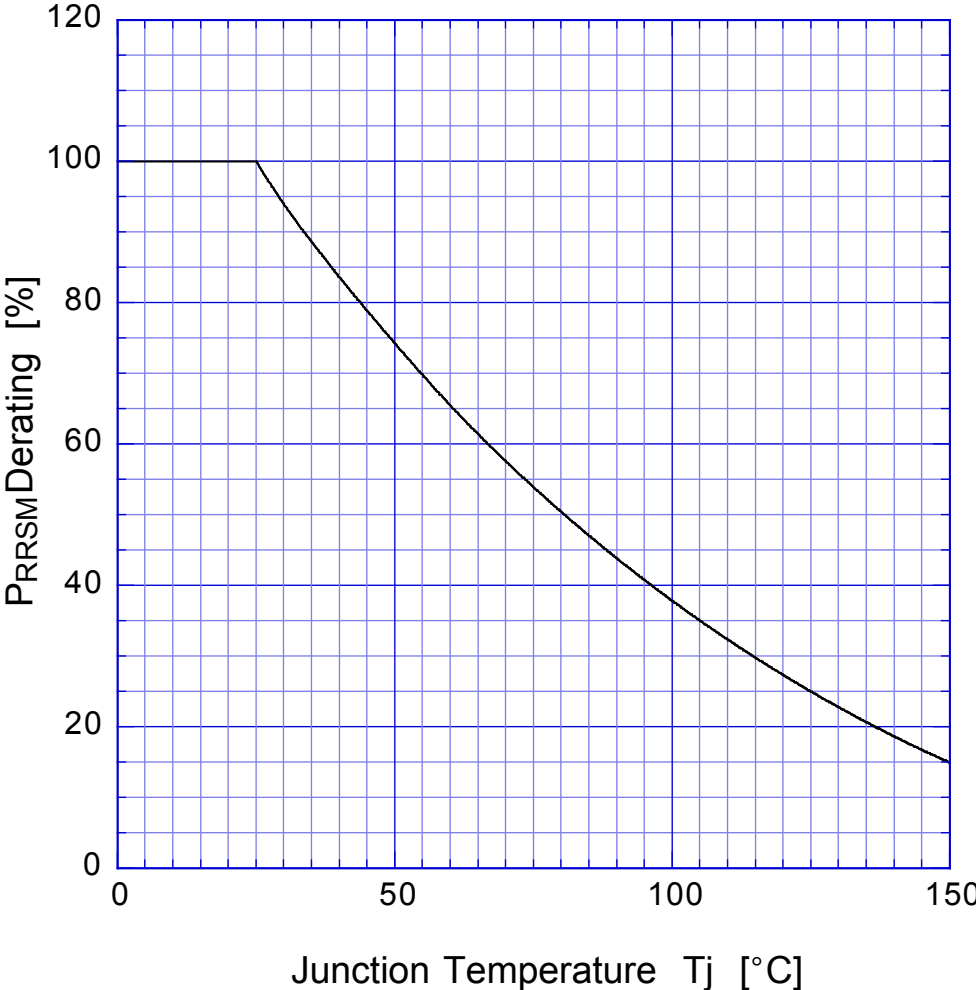


# DF40SC4 Peak Surge Forward Capability





# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

