

# SHINDENGEN

## Schottky Rectifiers (SBD)

Dual

# DF10SC9

## 90V 10A

### FEATURES

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

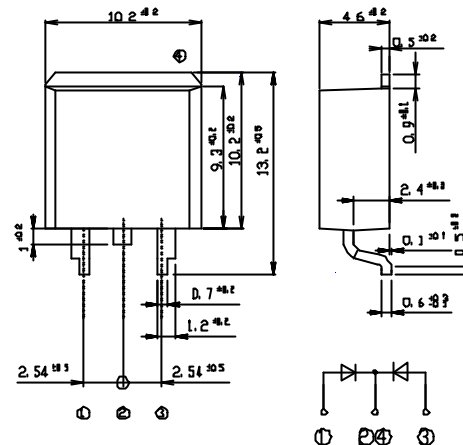
### APPLICATION

- 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 Tc=25 )

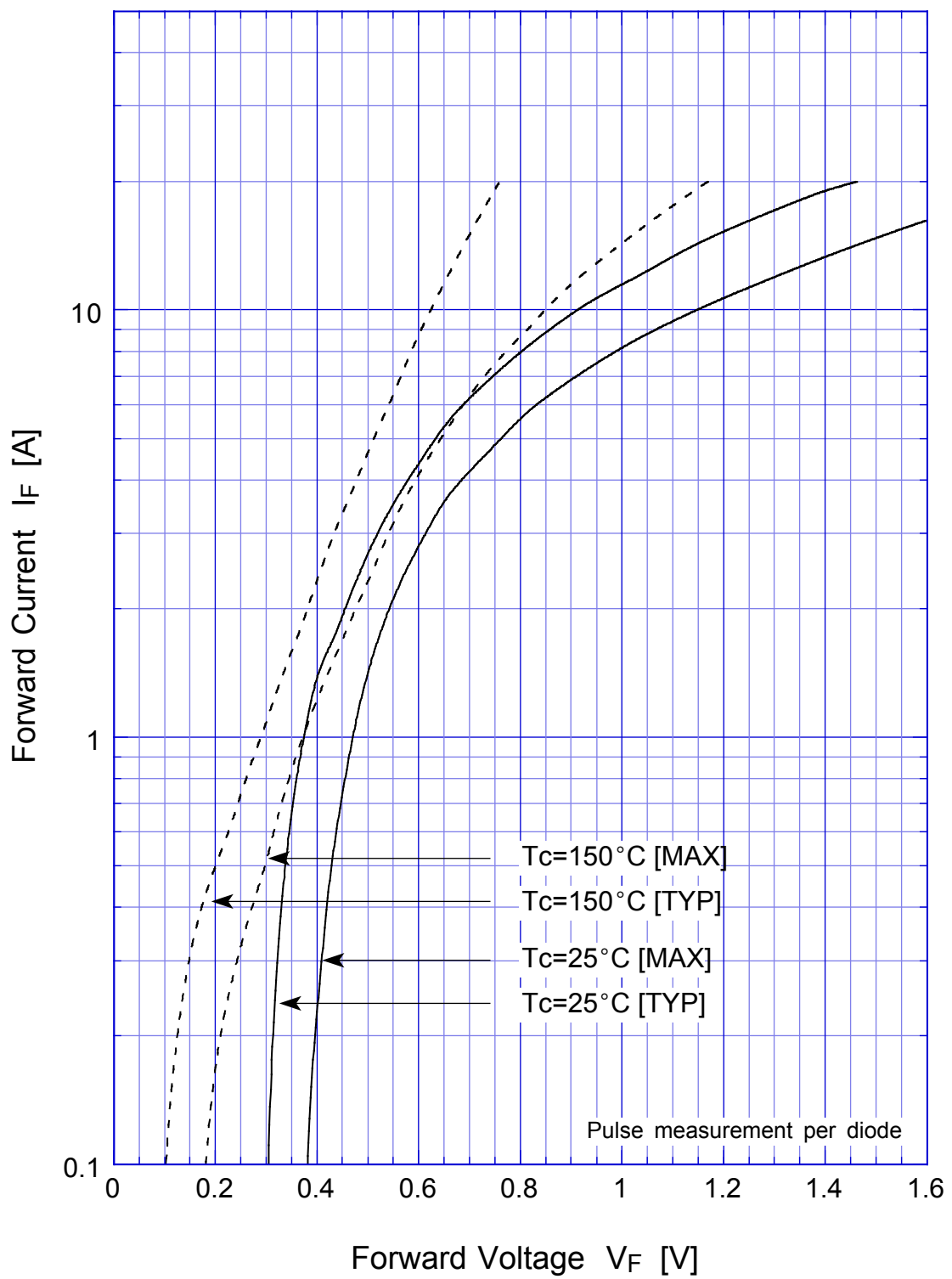
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-55 ~ 150	
Operating Junction Temperature	T <sub>j</sub>		150	
Maximum Reverse Voltage	V <sub>RM</sub>		90	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	100	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, Rating for each diode I <sub>O</sub> /2, Tc=131	10	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=125	150	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μs, Rating of per diode, Tj=25	330	W

Electrical Characteristics (If not specified Tc=25 )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =5A, Pulse measurement, Rating of per diode	Max.0.75	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.3	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V, Rating of per diode	Typ.185	pF
Thermal Resistance	θ <sub>JC</sub>	junction to case	Max.1.2	/W

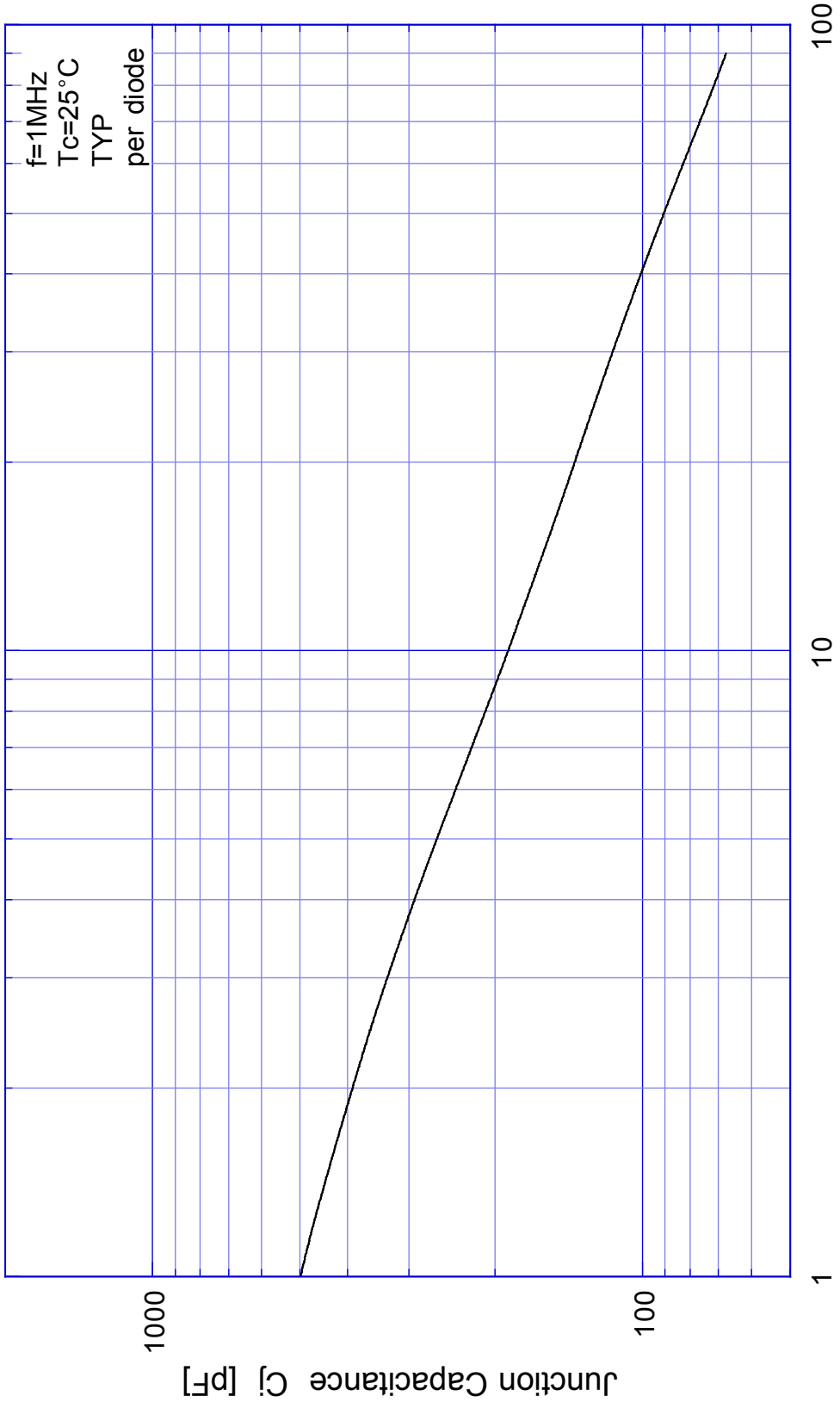
# DF10SC9

## Forward Voltage



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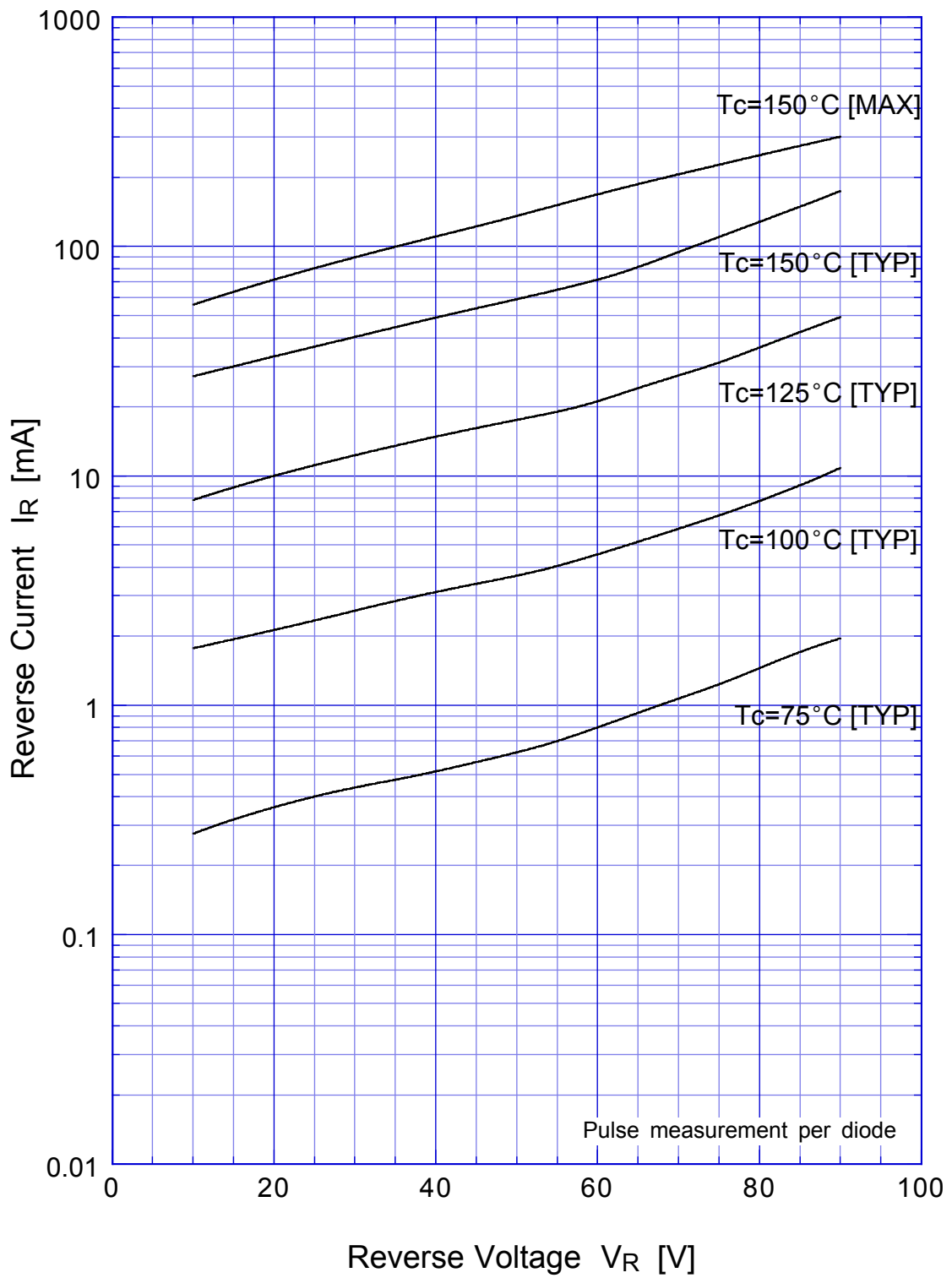
## Junction Capacitance



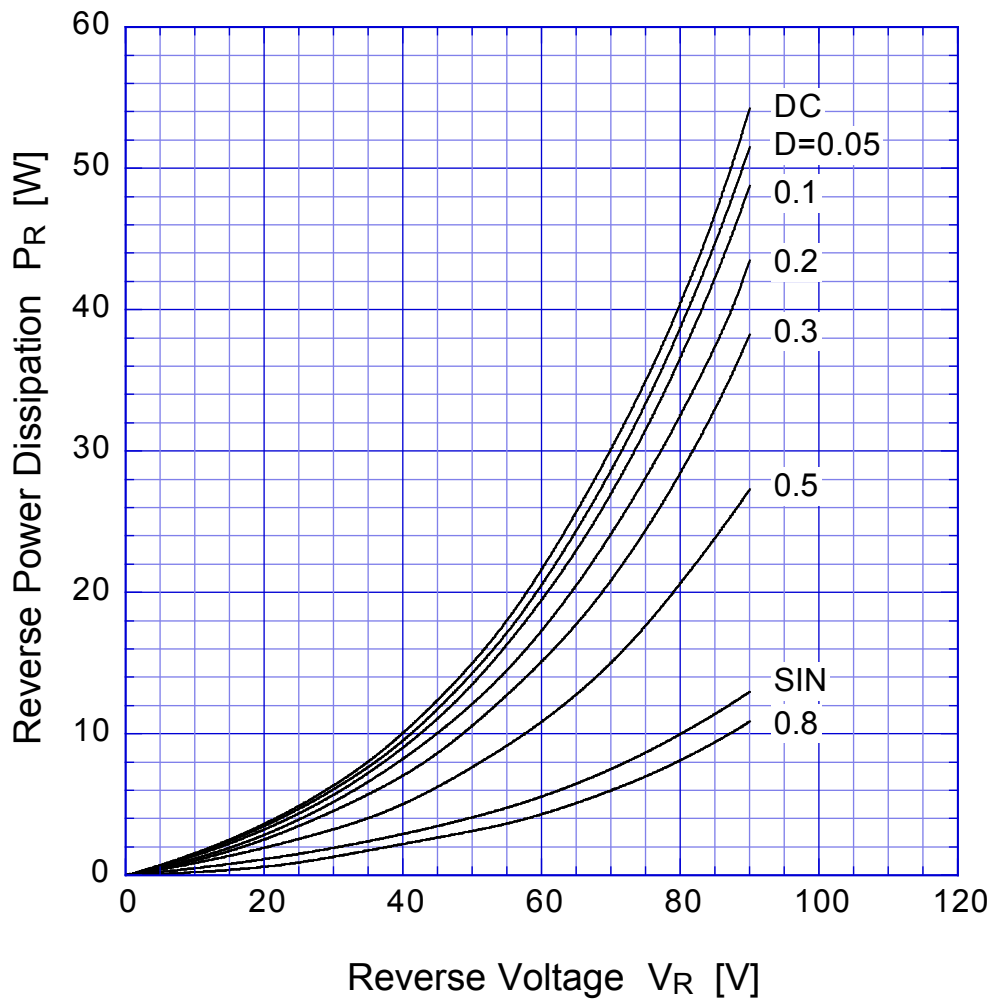
Reverse Voltage  $V_R$  [V]

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## Reverse Current



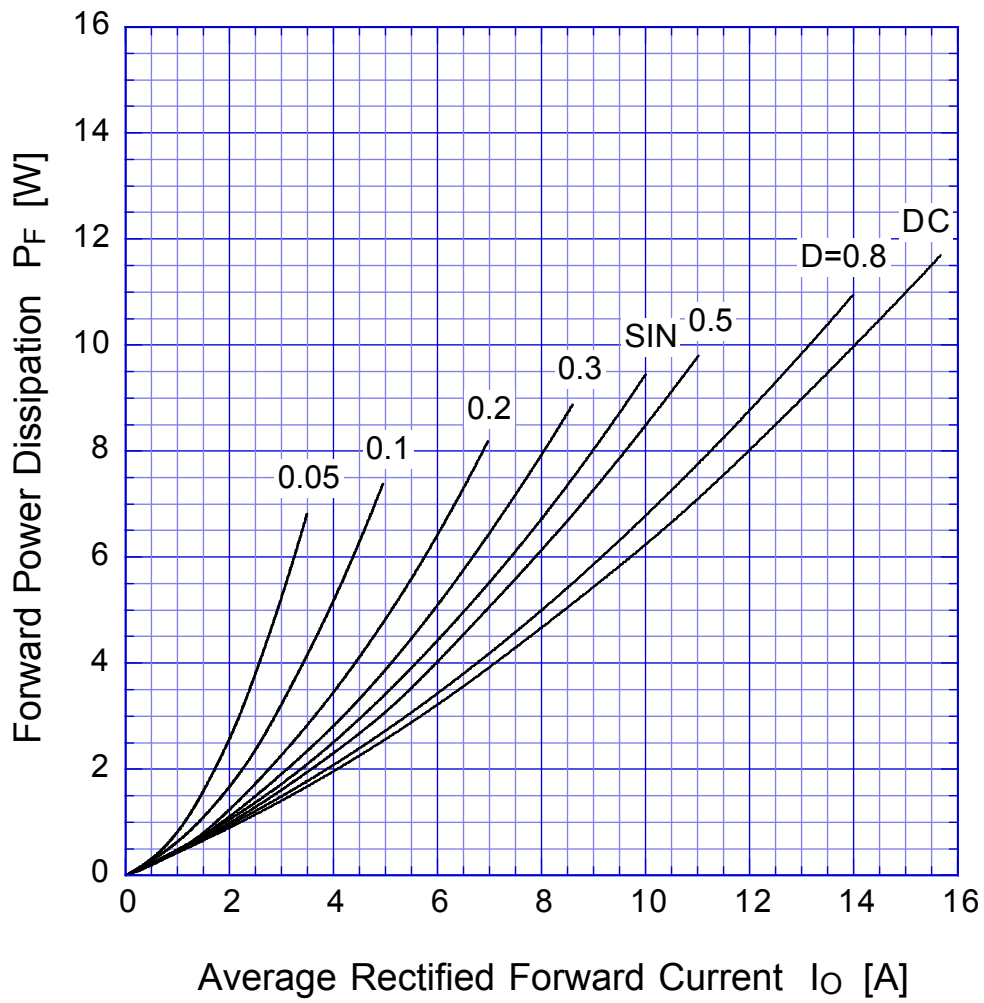
# DF10SC9 Reverse Power Dissipation



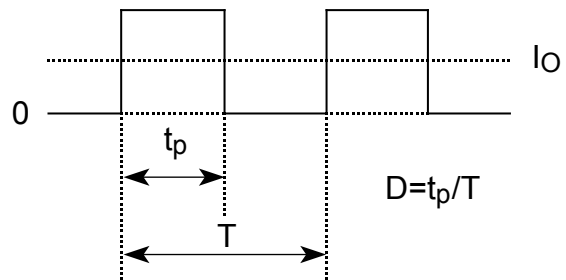
$T_j = 150^\circ\text{C}$



# DF10SC9 Forward Power Dissipation

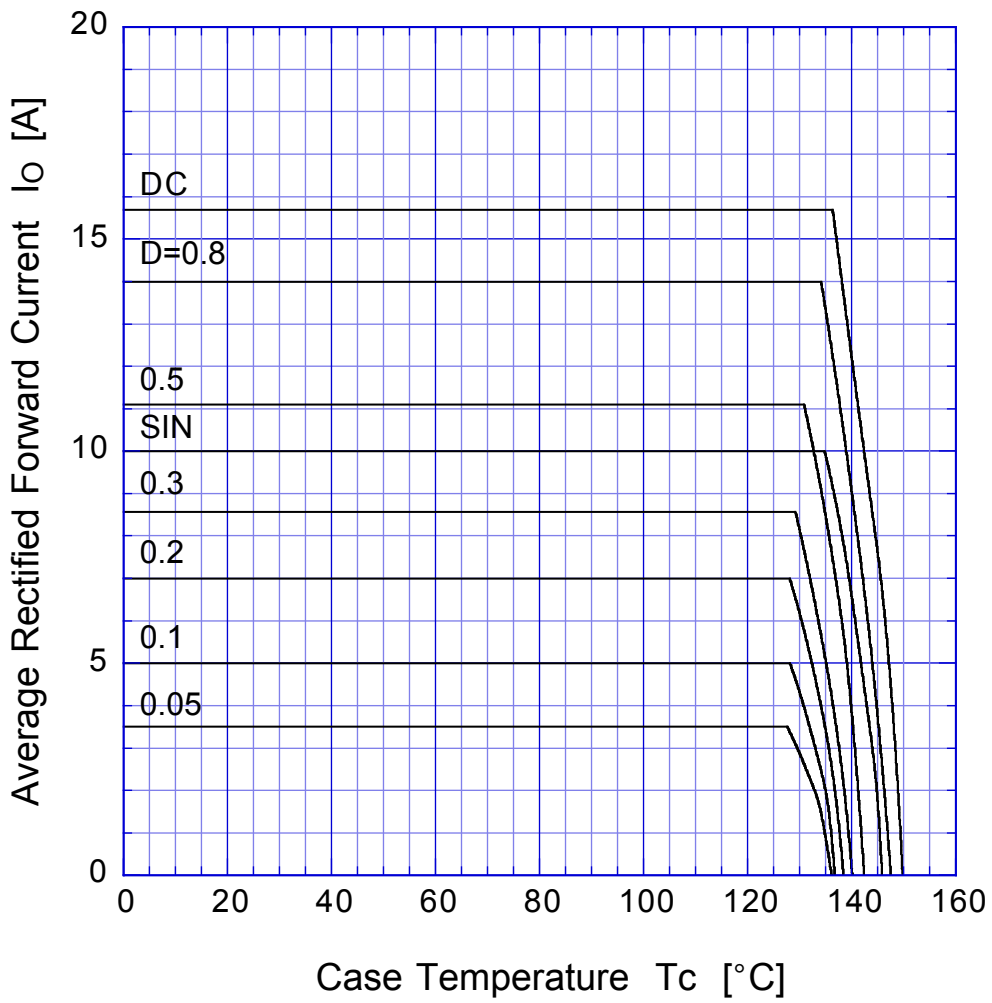


$T_j = 150^\circ\text{C}$



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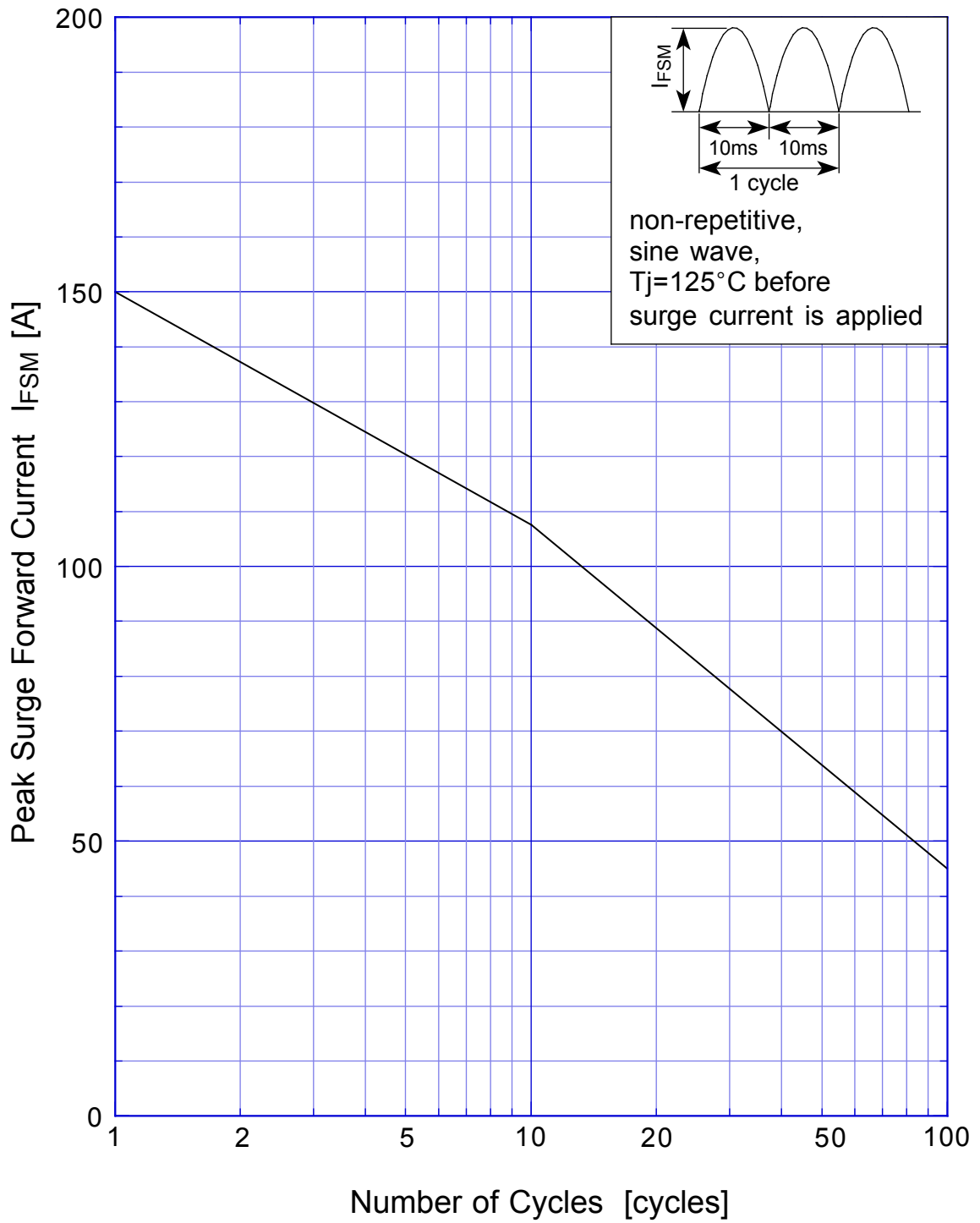
# Derating Curve



$V_R = 45V$



# DF10SC9 Peak Surge Forward Capability





# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

