

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

# D3S6M

## 60V 3A

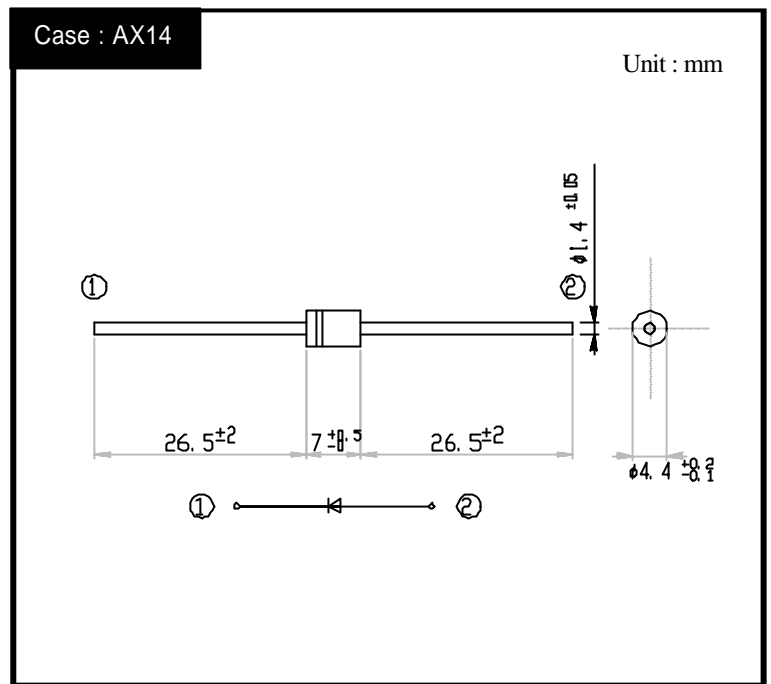
### FEATURES

- Tj150
- P<sub>RRSM</sub> avalanche guaranteed
- 1.4 lead

### APPLICATION

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

### OUTLINE DIMENSIONS



### RATINGS

Absolute Maximum Ratings Tl=25

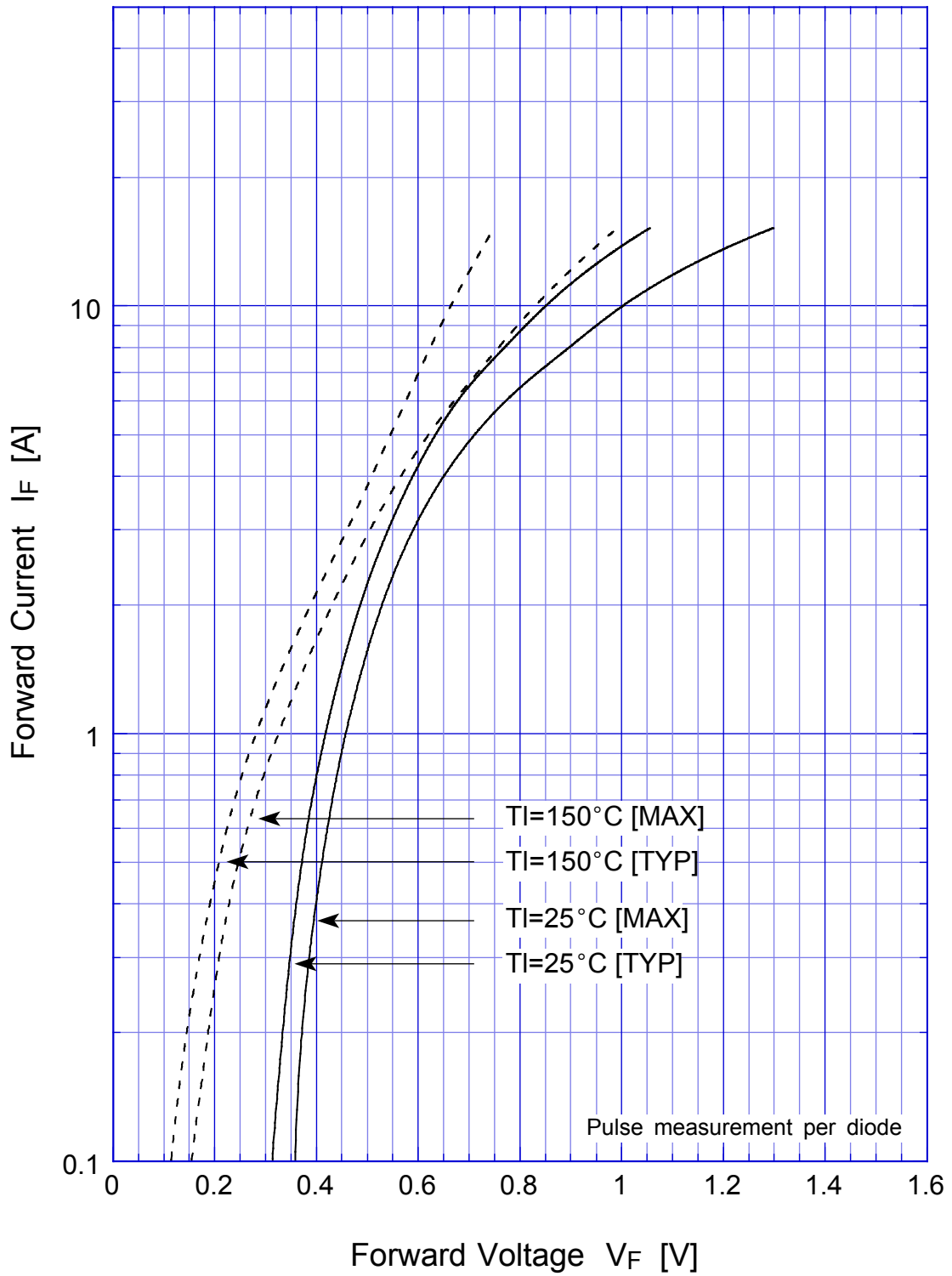
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40 ~ 150	
Operating Junction Temperature	T <sub>j</sub>		150	
Maximum Reverse Voltage	V <sub>RM</sub>		60	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I <sub>o</sub>	50Hz sine wave, R-load Tl=133	3	A
		50Hz sine wave, R-load Ta=57	1.8	
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, Rating of per diode, Tj=125	80	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μs, Tj=25	330	W

Electrical Characteristics Tl=25

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =3A, Pulse measurement	Max.0.58	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement	Max.2.5	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V	Typ.130	pF
Thermal Resistance	j <sub>l</sub>	junction to lead	Max.6.5	/W
	j <sub>a</sub>	junction to ambient (Without heatsink)	Max.62	

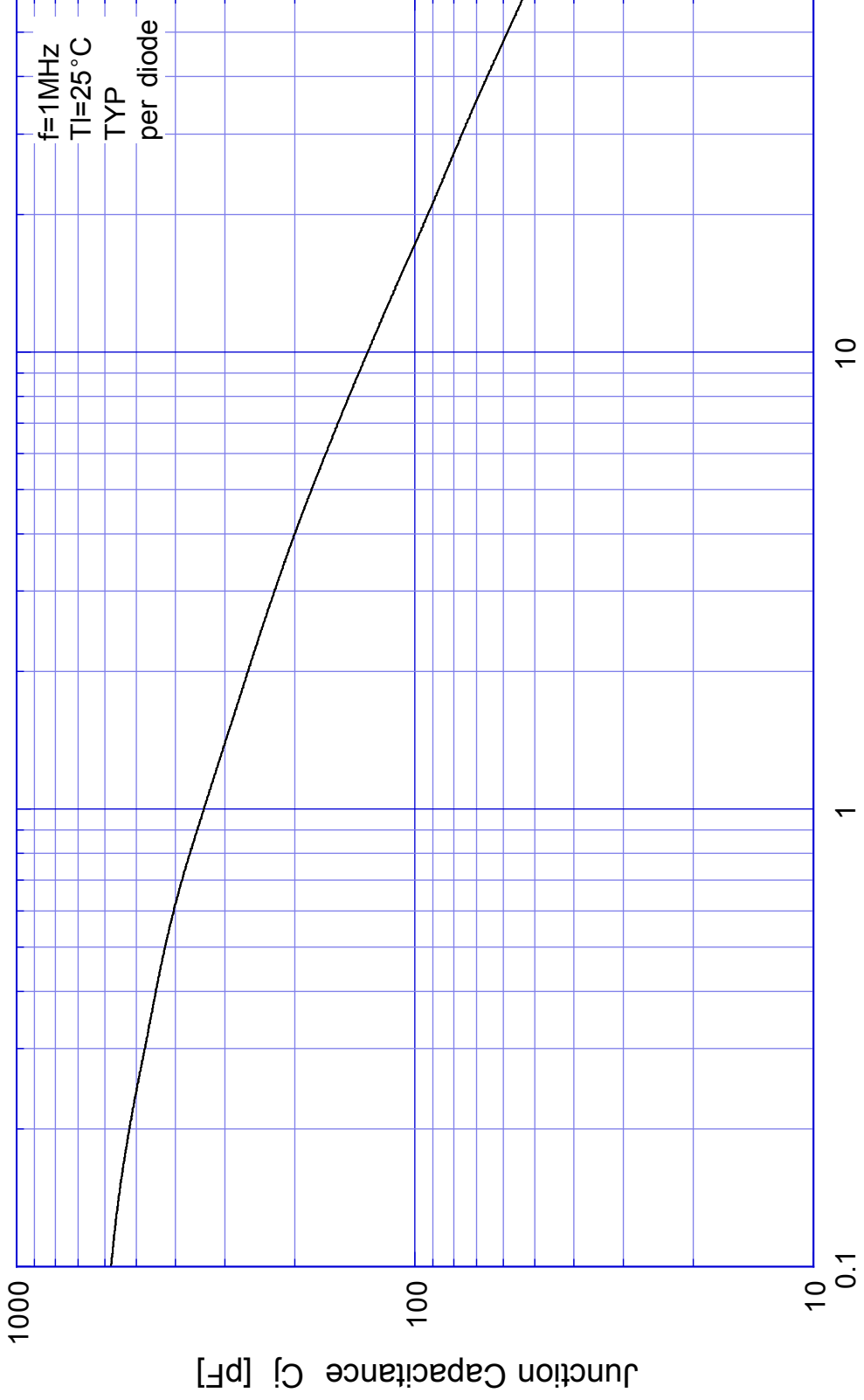
# D3S6M

# Forward Voltage



# D3S6M

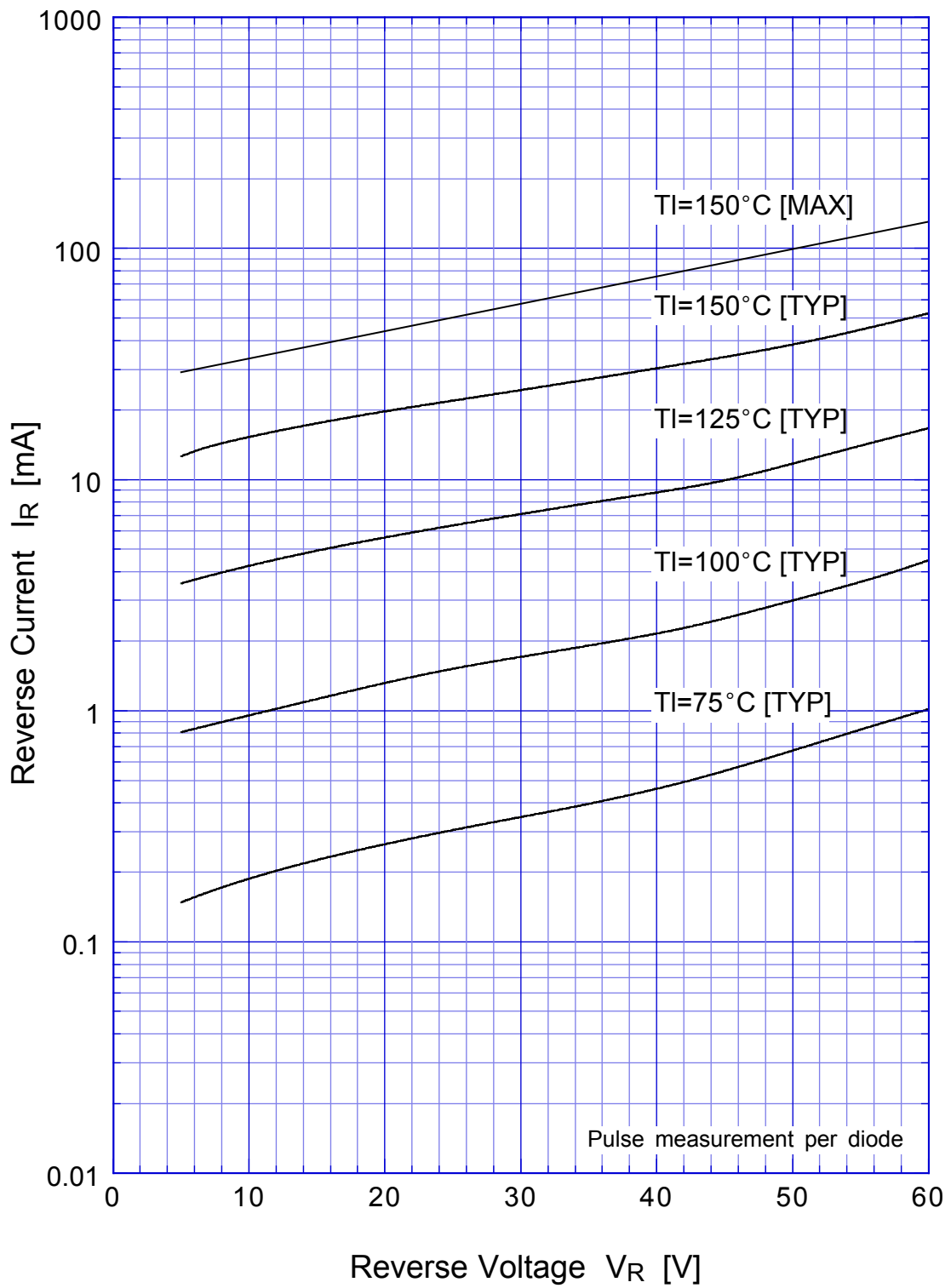
## Junction Capacitance



Reverse Voltage  $V_R$  [V]

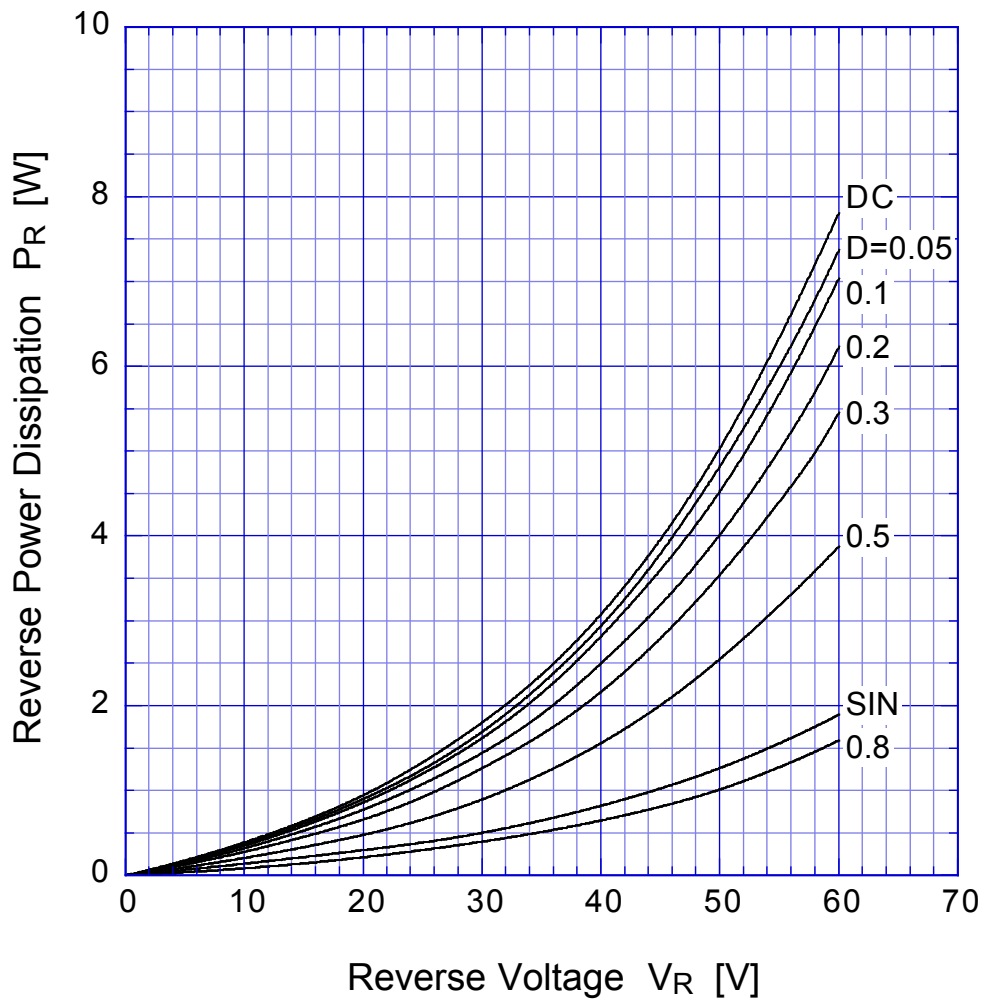
# D3S6M

# Reverse Current

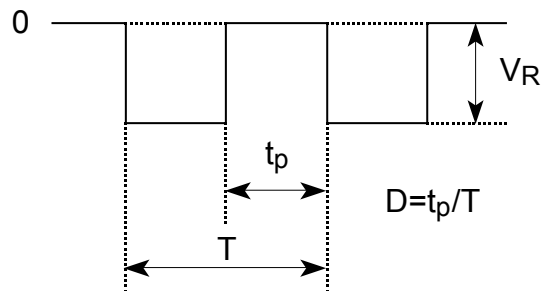


# D3S6M

## Reverse Power Dissipation

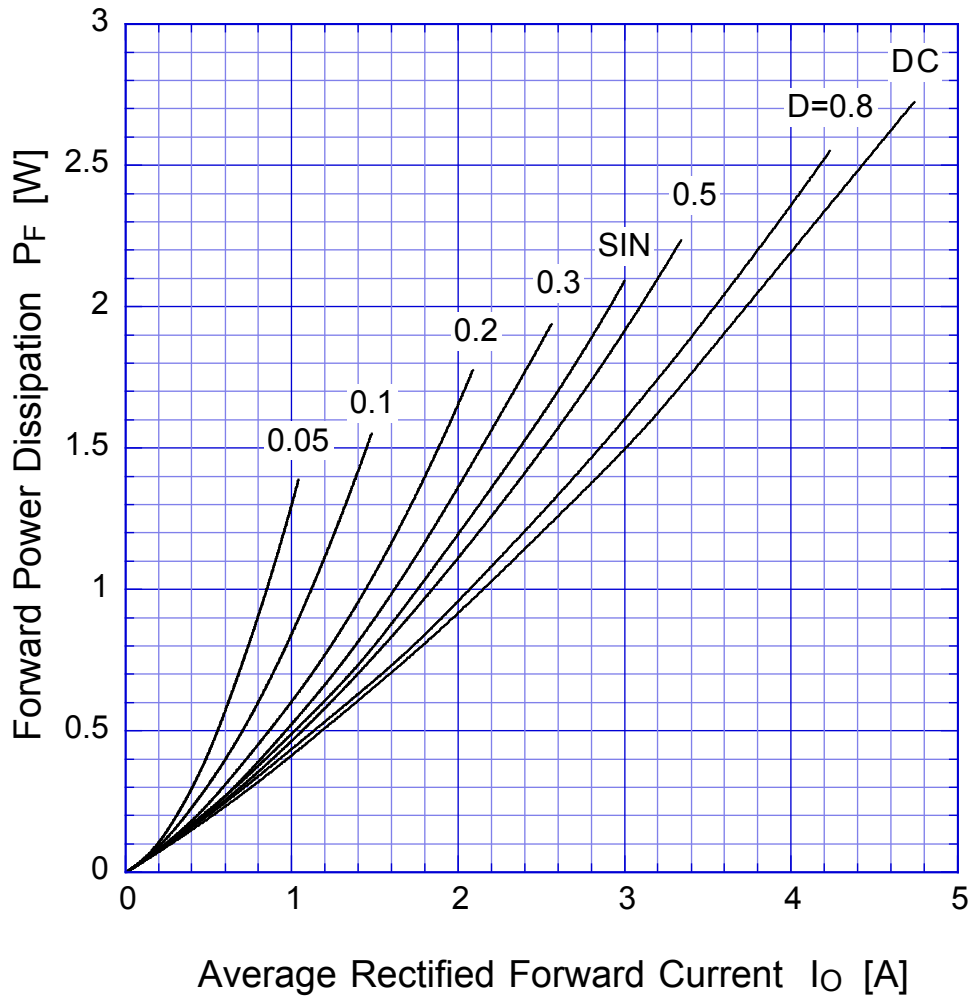


$T_j = 150^\circ\text{C}$

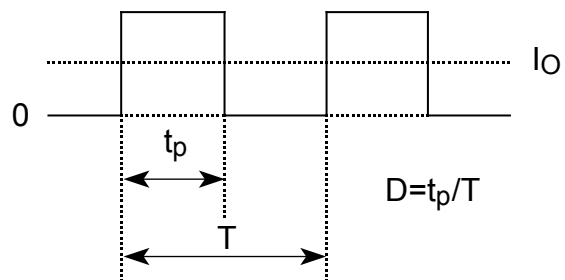


# D3S6M

## Forward Power Dissipation

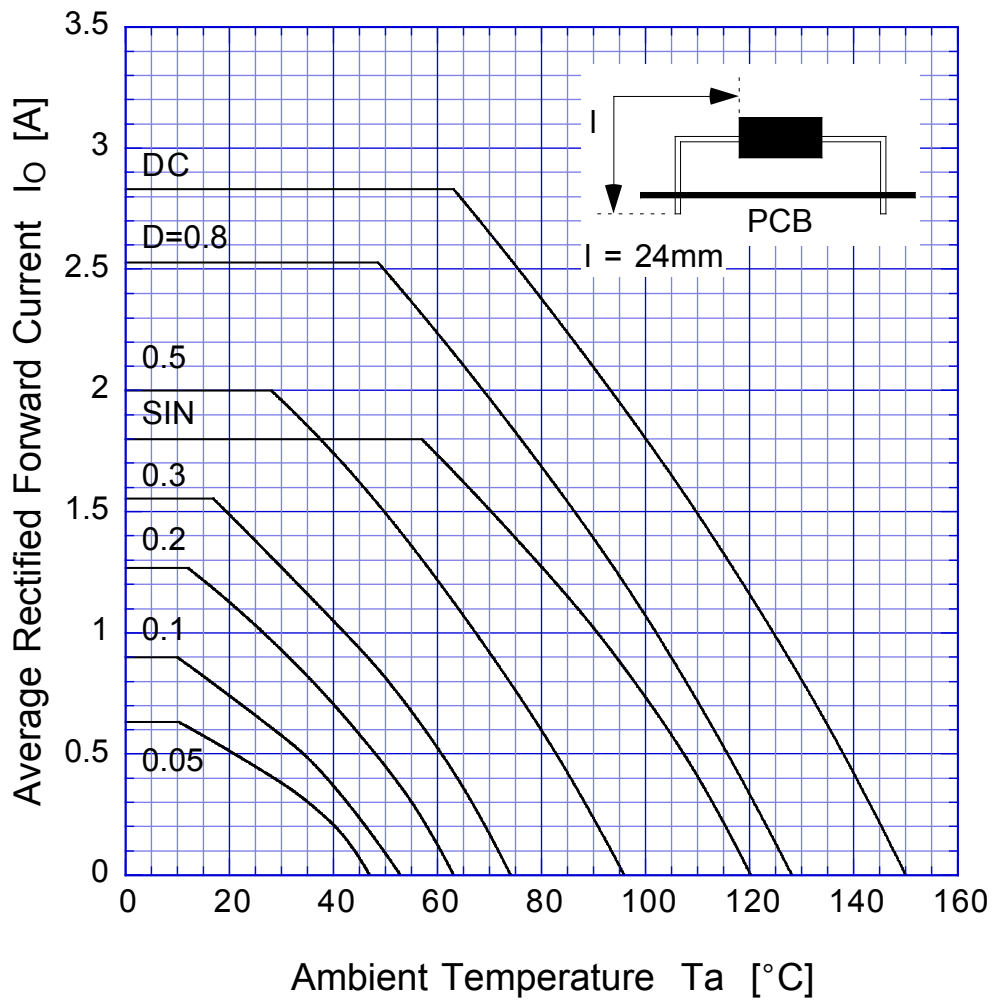


$T_j = 150^\circ\text{C}$

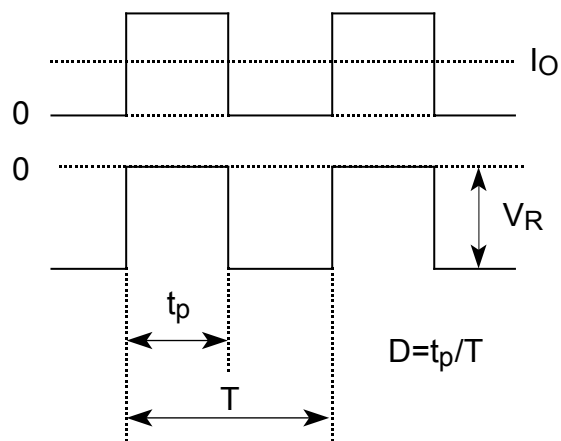


# D3S6M

# Derating Curve

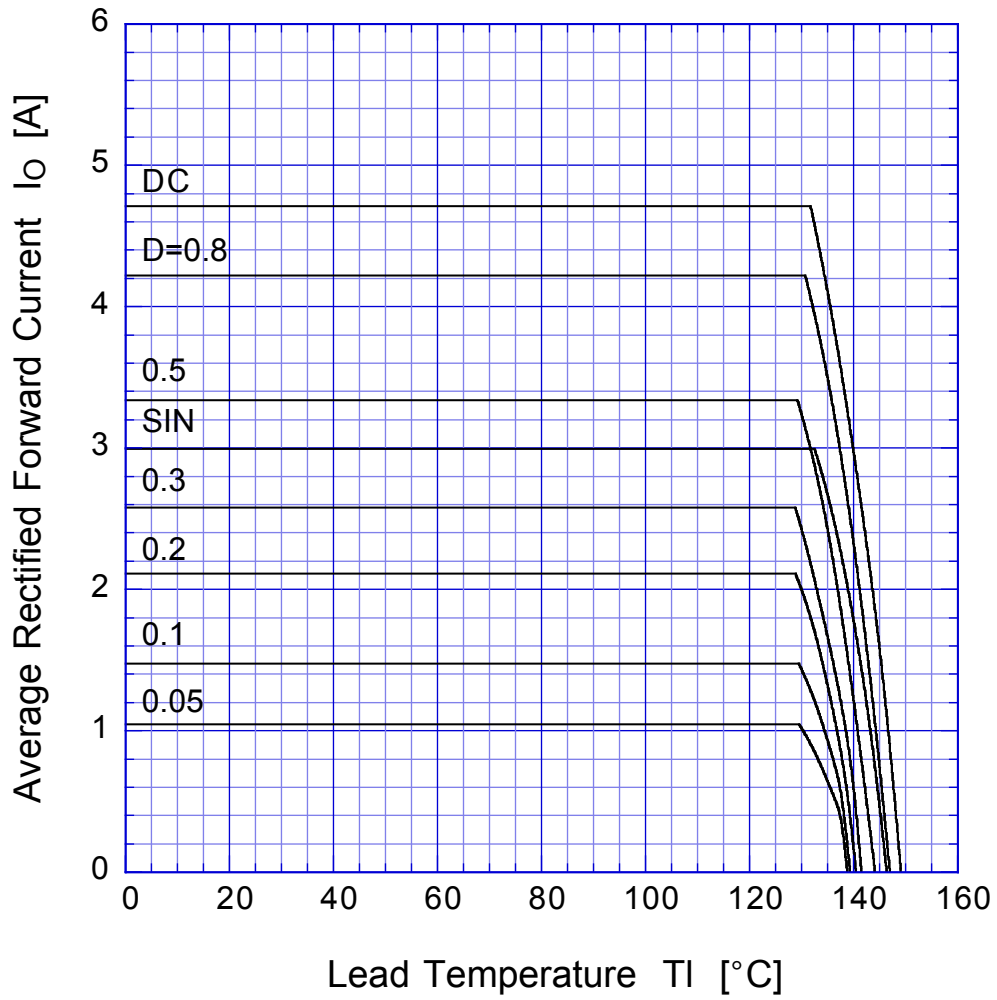


$V_R = 30\text{V}$

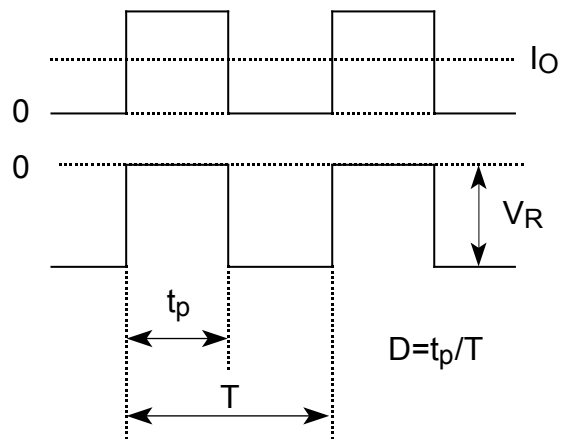


# D3S6M

# Derating Curve



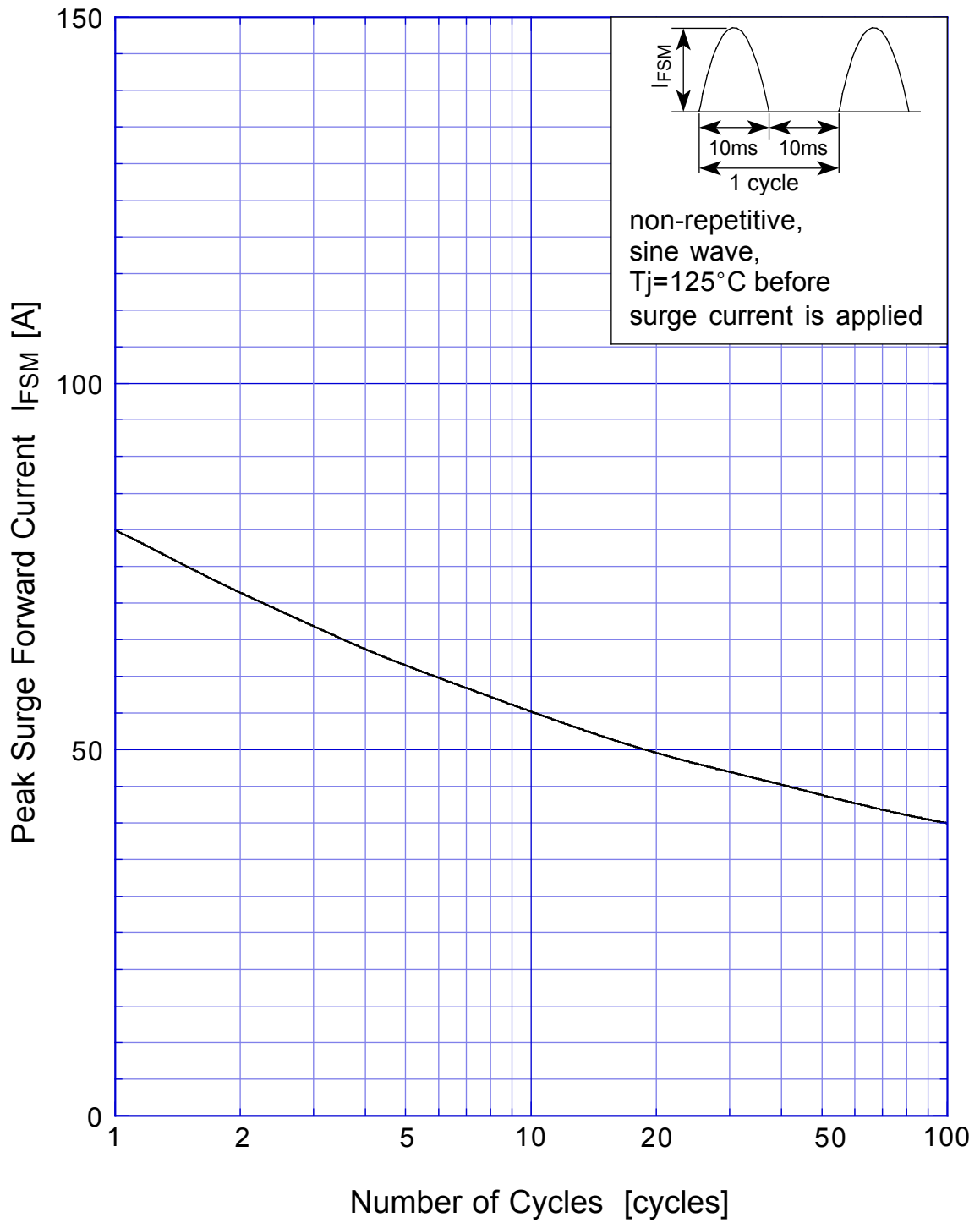
$V_R = 30V$



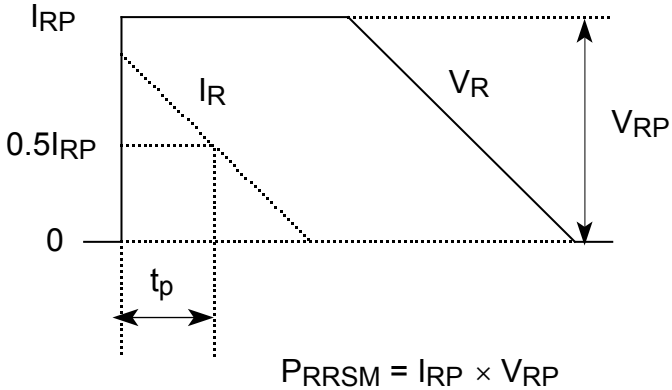
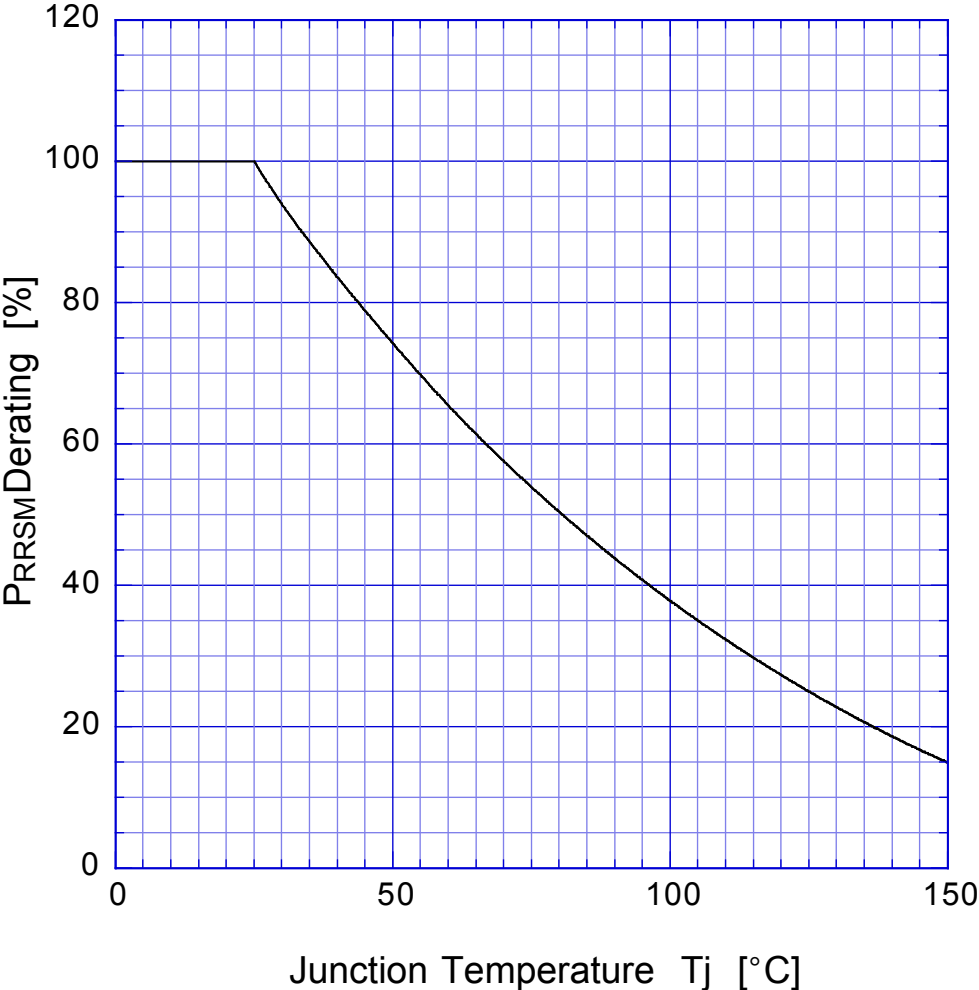


# D3S6M

## Peak Surge Forward Capability



# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

