

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

# DE3S6M

## 60V 3A

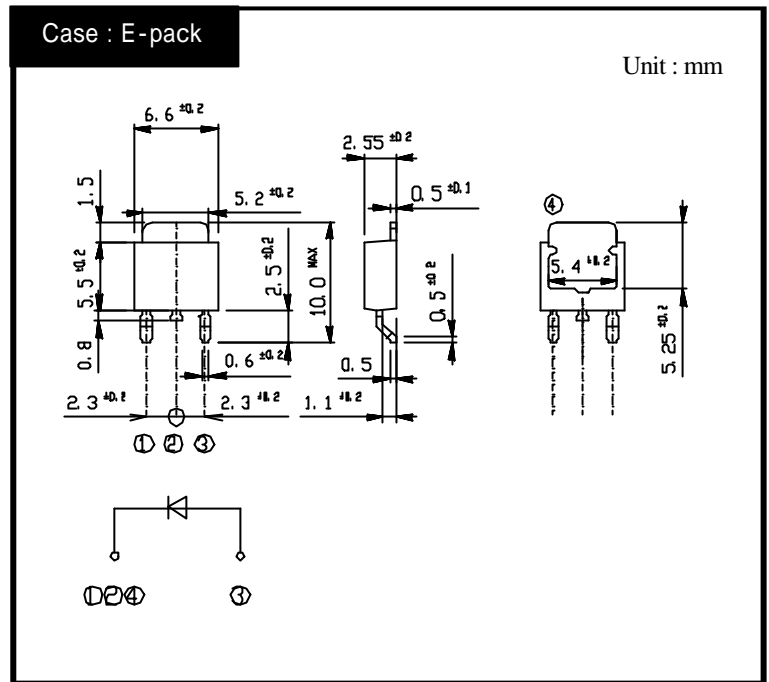
### FEATURES

- 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



### RATINGS

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

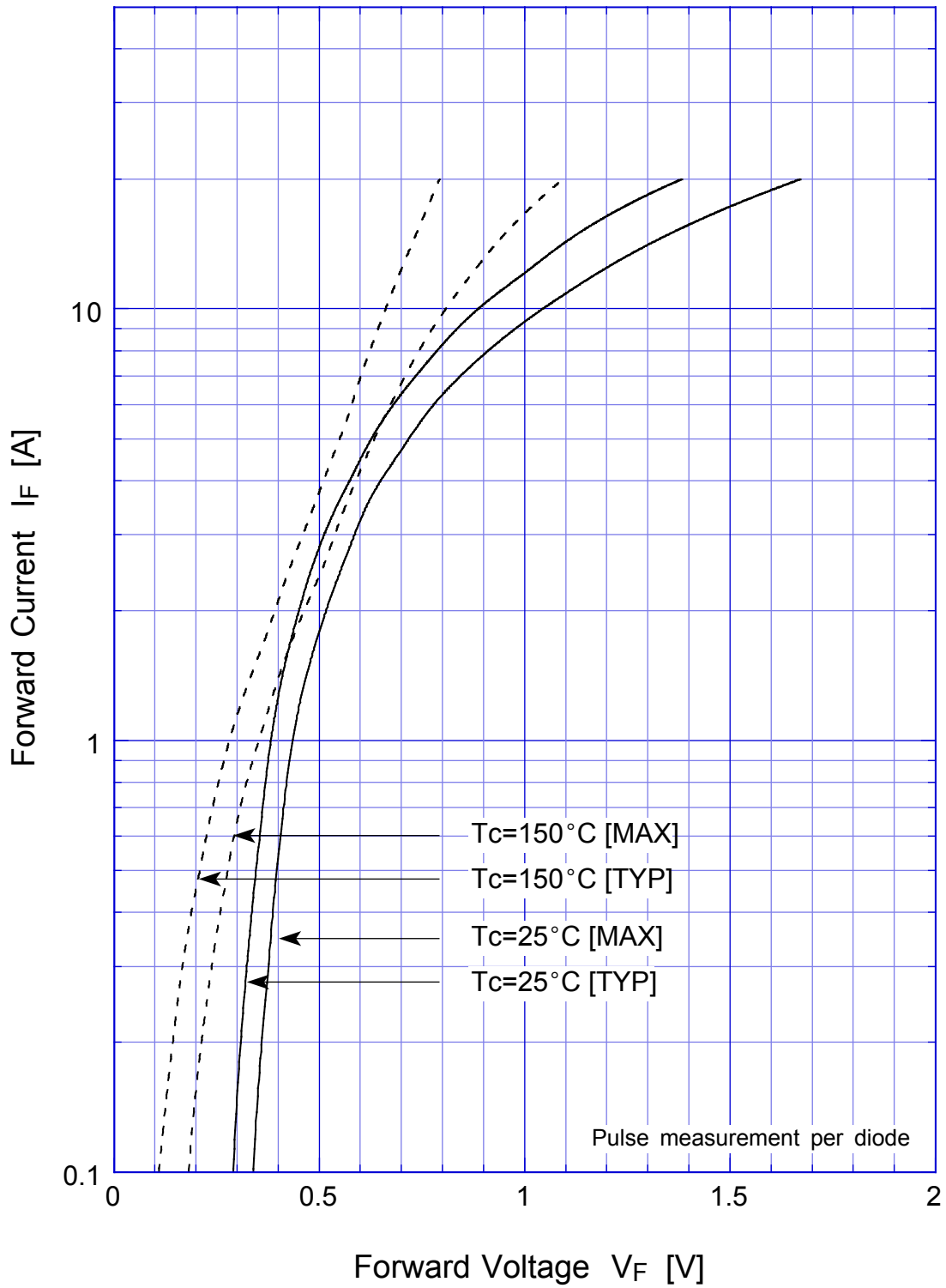
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-40 ~ 150	
Operating Junction Temperature	T <sub>j</sub>		150	
Maximum Reverse Voltage	V <sub>RM</sub>		60	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load T <sub>a</sub> =31 On alumina substrate	2.5	A
		50Hz sine wave, R-load T <sub>c</sub> =117	3	
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =125	80	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μs, T <sub>j</sub> =25	330	W

Electrical Characteristics (If not specified T<sub>c</sub>=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-c	junction to case	Max.12	/W
	j-a	junction to ambient	Max.55	

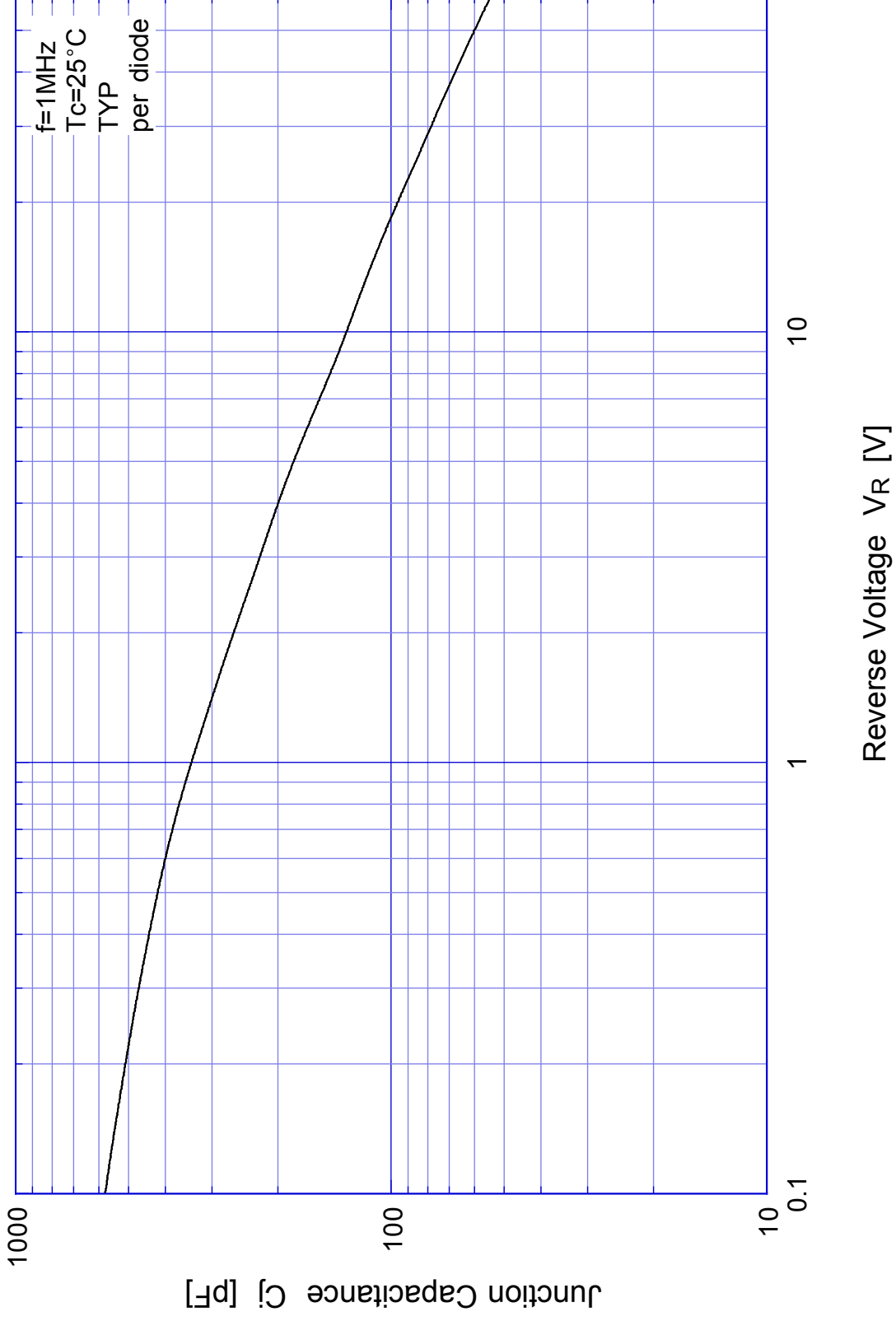
# DE3S6M

## Forward Voltage



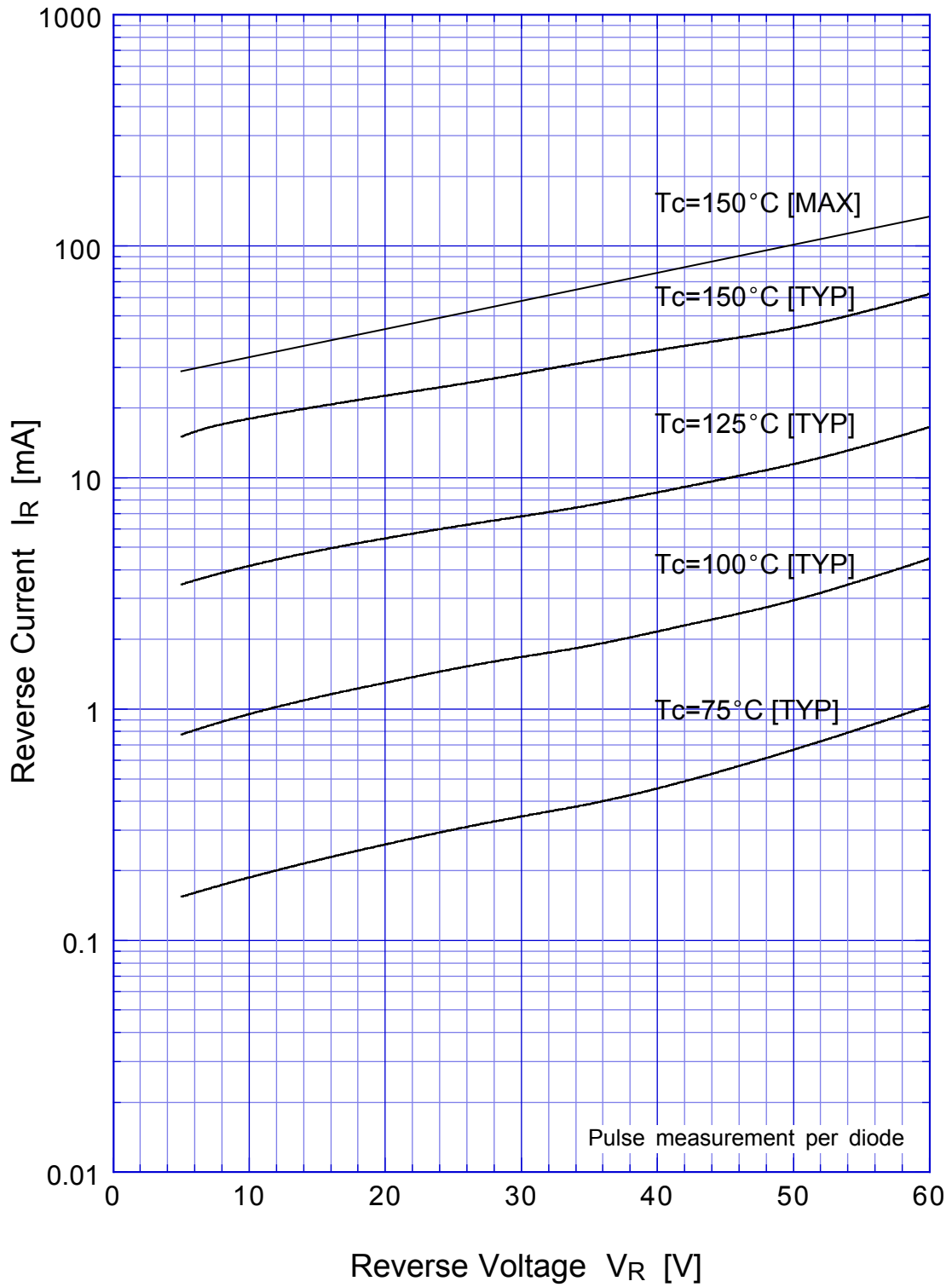
# DE3S6M

## Junction Capacitance

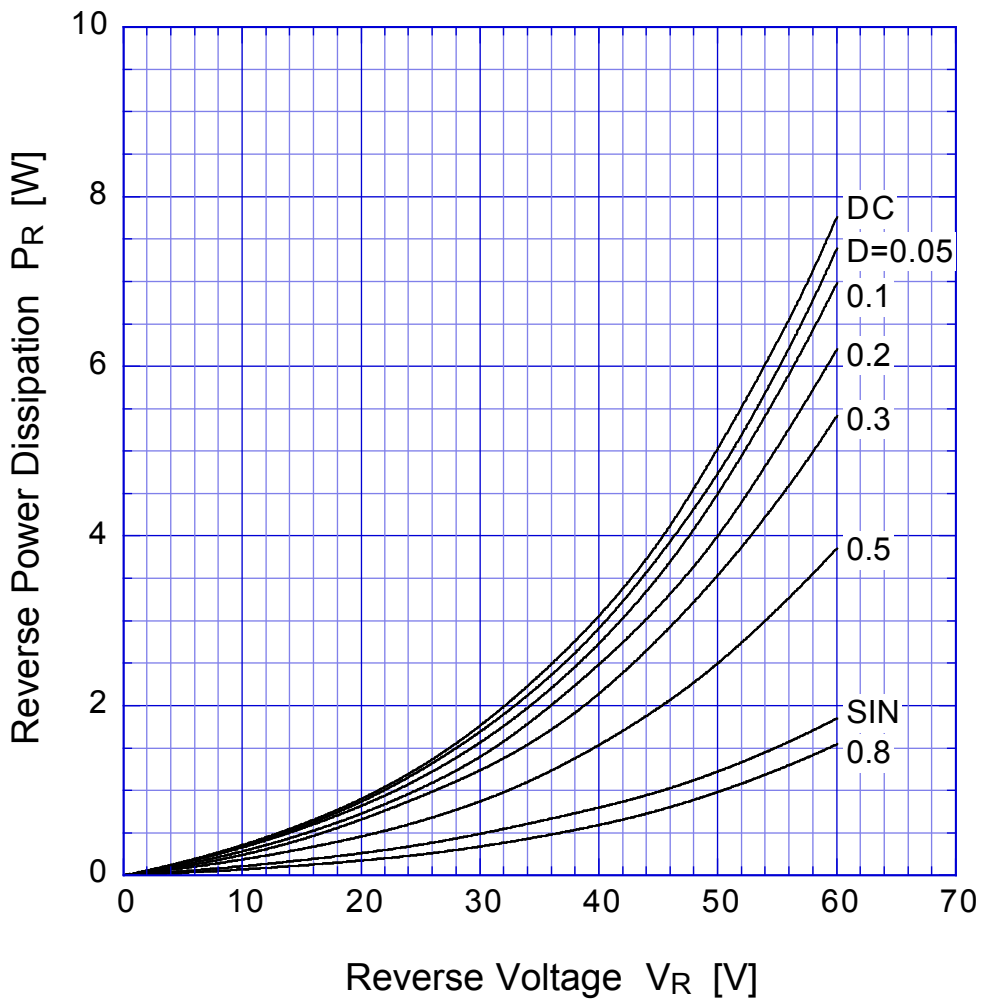


# DE3S6M

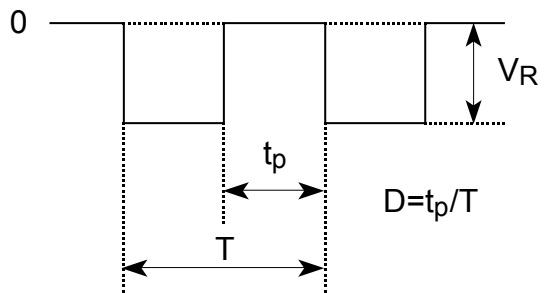
# Reverse Current



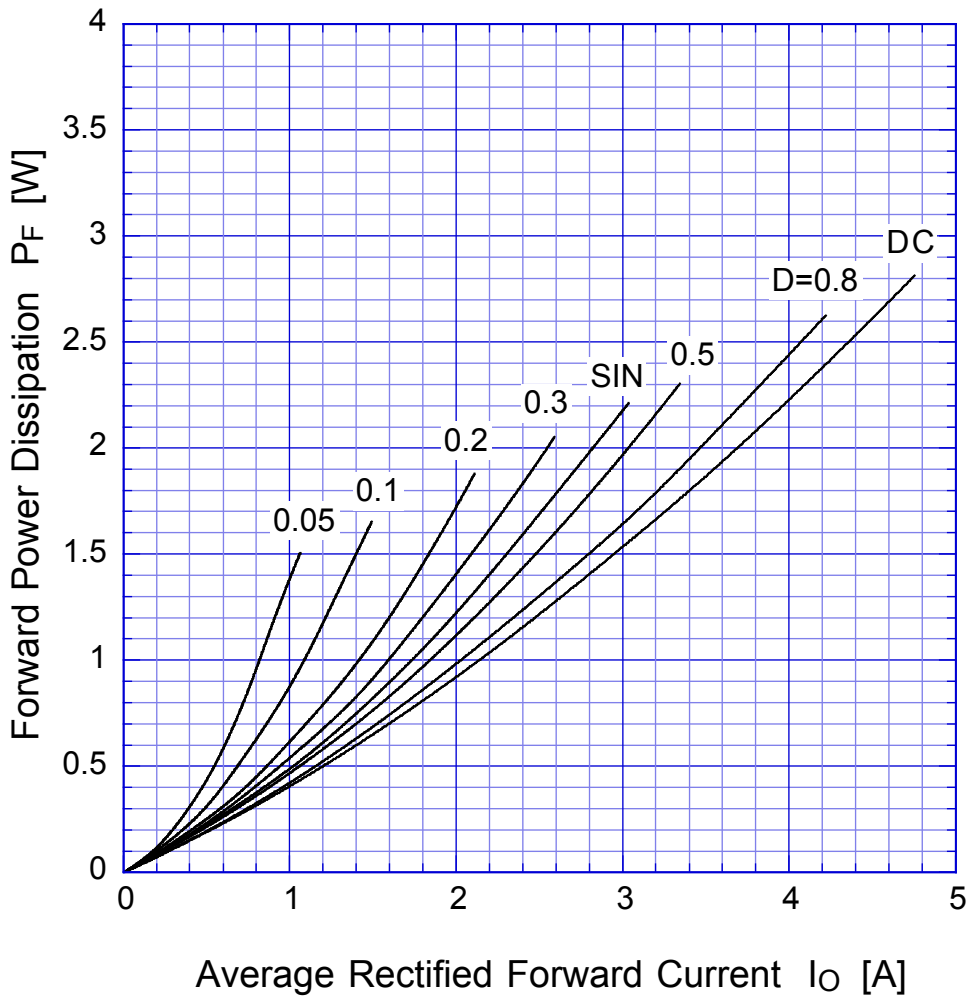
# DE3S6M Reverse Power Dissipation



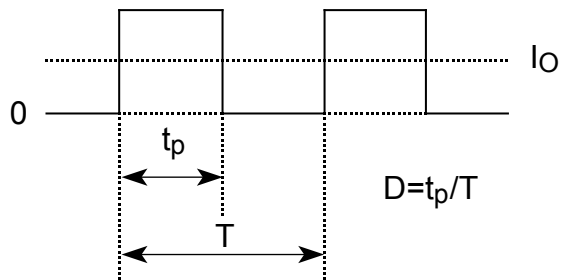
$T_j = 150^\circ\text{C}$



# DE3S6M Forward Power Dissipation

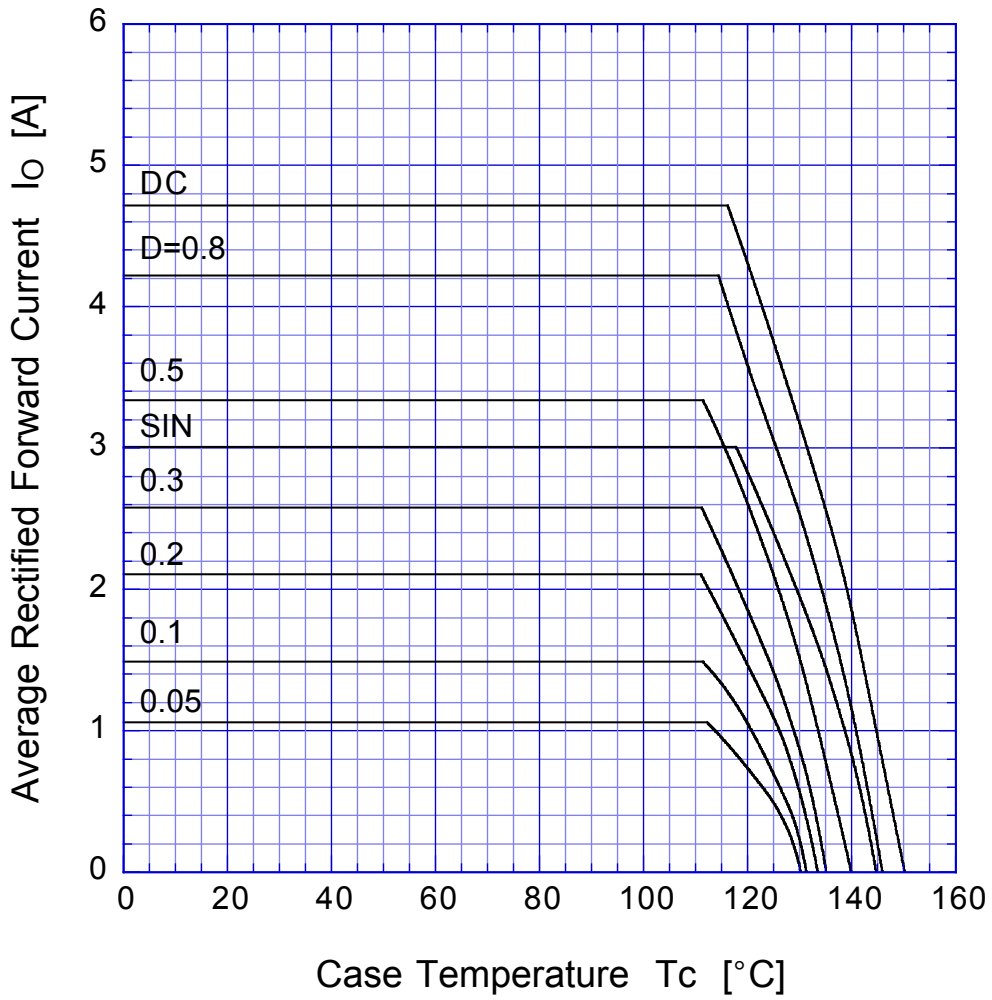


$T_j = 150^\circ\text{C}$



# DE3S6M

# Derating Curve

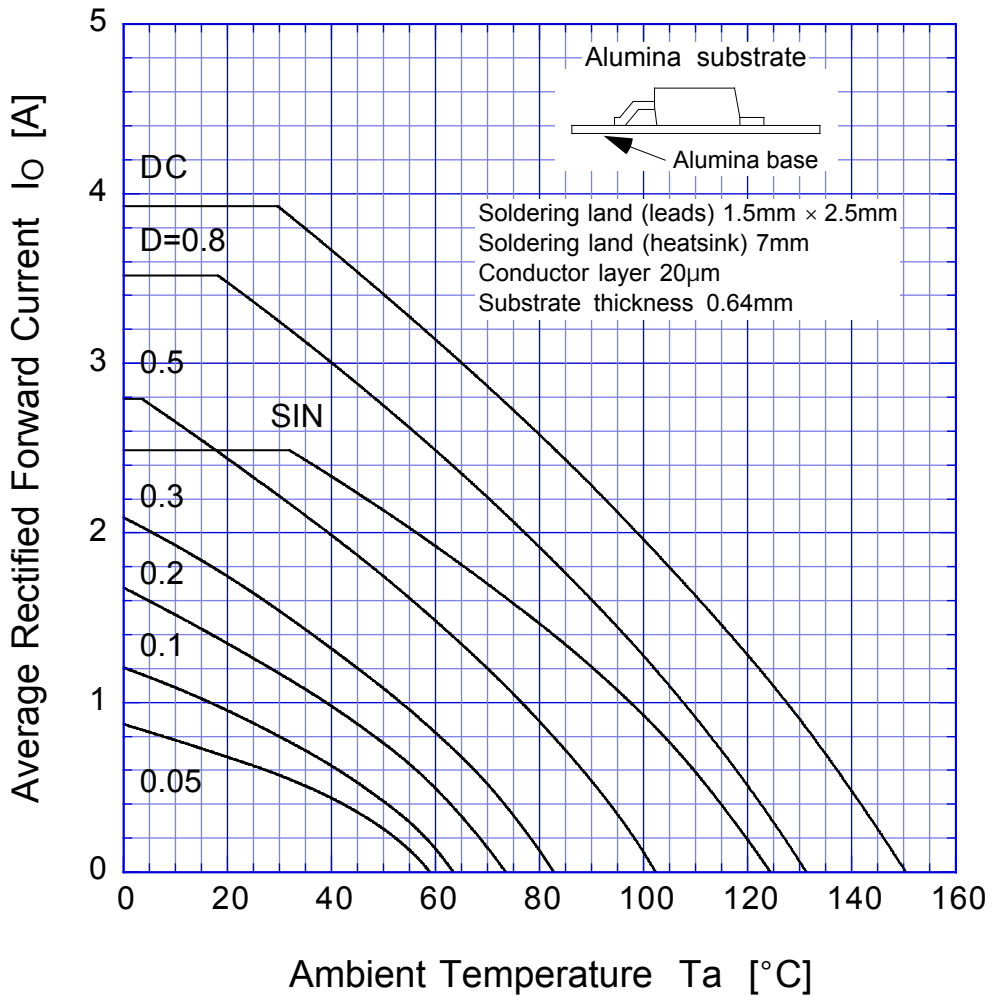


$V_R = 30V$

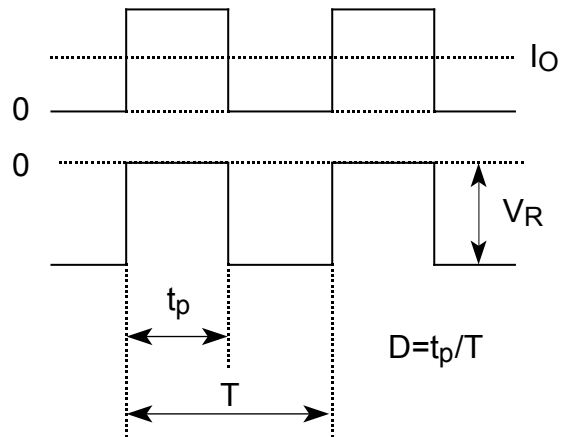


# DE3S6M

# Derating Curve



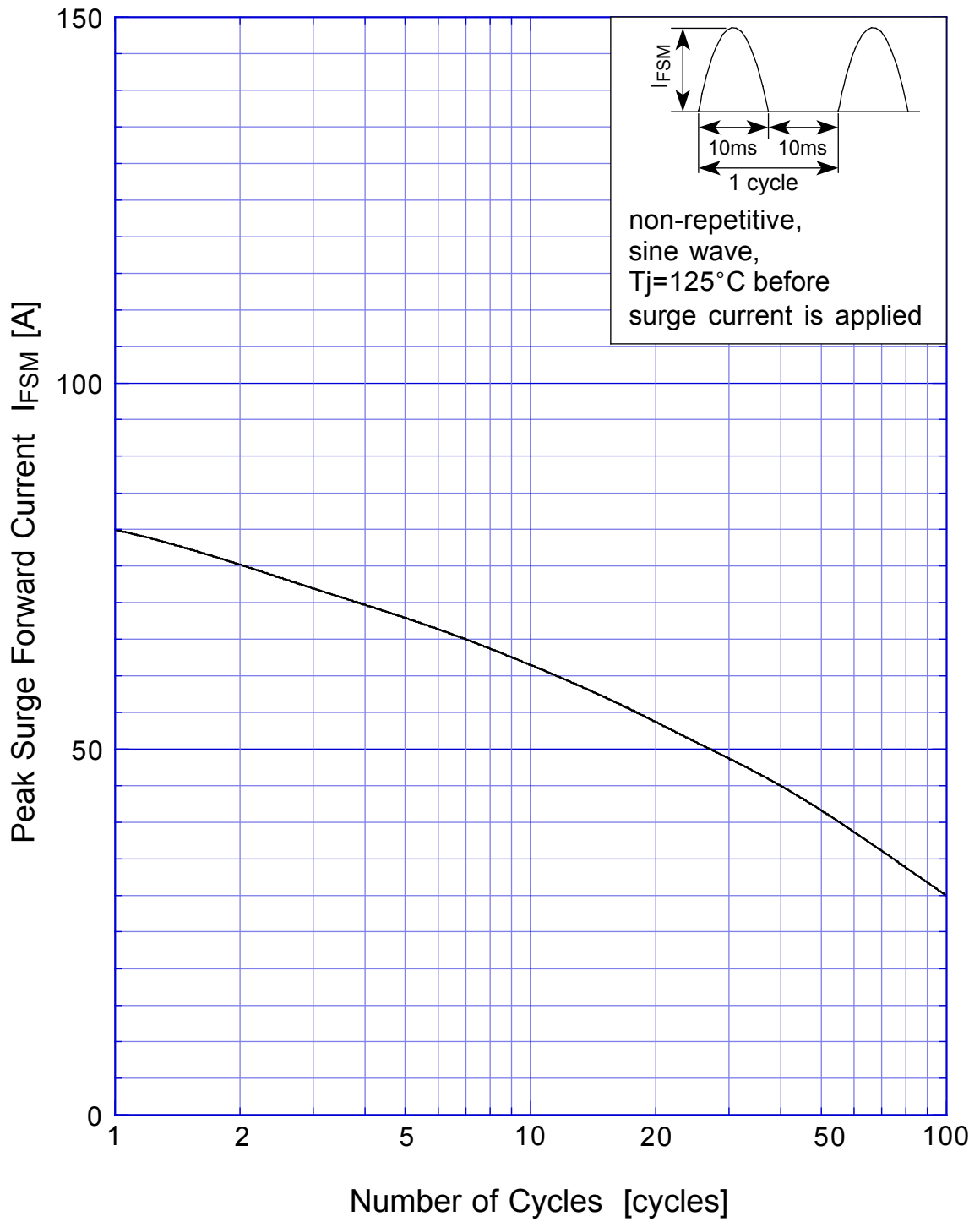
$V_R = 30V$





# DE3S6M

## Peak Surge Forward Capability



# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

