

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

**SF5S6**

**60V 5A**

### FEATURES

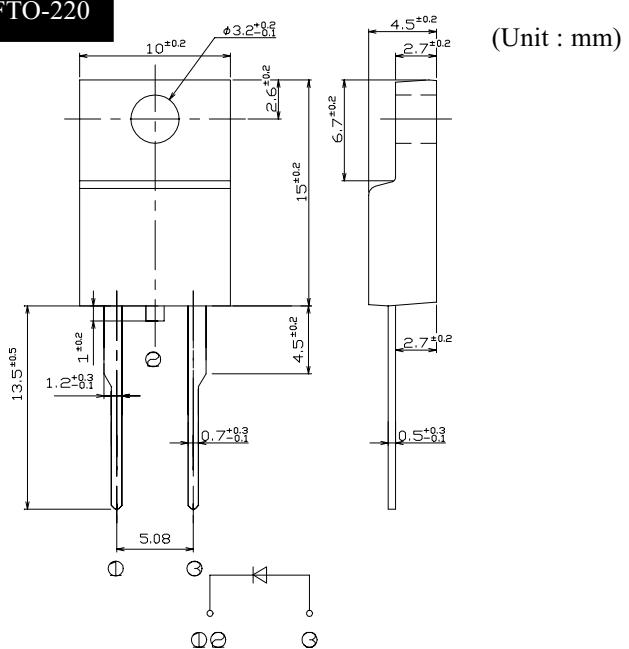
- $T_j$ 150°C
- $P_{RRSM}$  avalanche guaranteed
- Fully Isolated Molding
- Dielectric strength 1.5KV guaranteed

### APPLICATION

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

### OUTLINE DIMENSIONS

Case : FTO-220



### RATINGS

#### ● Absolute Maximum Ratings (If not specified $T_c=25^\circ\text{C}$ )

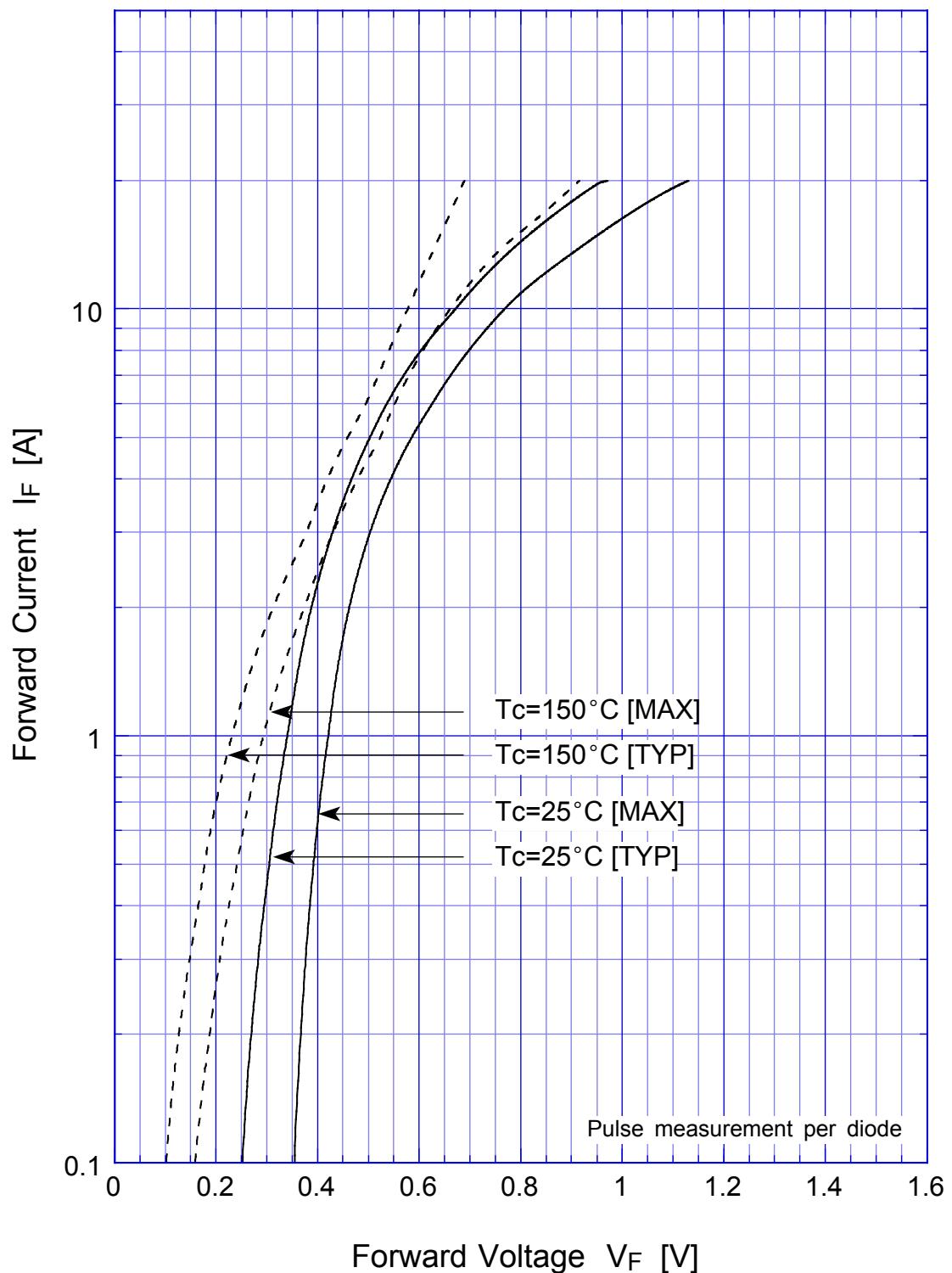
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	$T_{stg}$		-55~150	°C
Operating Junction Temperature	$T_j$		150	°C
Maximum Reverse Voltage	$V_{RM}$		60	V
Repetitive Peak Surge Reverse Voltage	$V_{RRSM}$	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	$I_O$	50Hz sine wave, R-load, $T_c=134^\circ\text{C}$	5	A
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ\text{C}$	150	A
Repetitive Peak Surge Reverse Power	$P_{RRSM}$	Pulse width 10 $\mu\text{s}$ , $T_j=25^\circ\text{C}$	330	W
Dielectric Strength	$V_{dis}$	Terminals to case, AC 1 minute	1.5	kV
Mounting Torque	$T_{OR}$	(Recommended torque:0.3N·m)	0.5	N·m

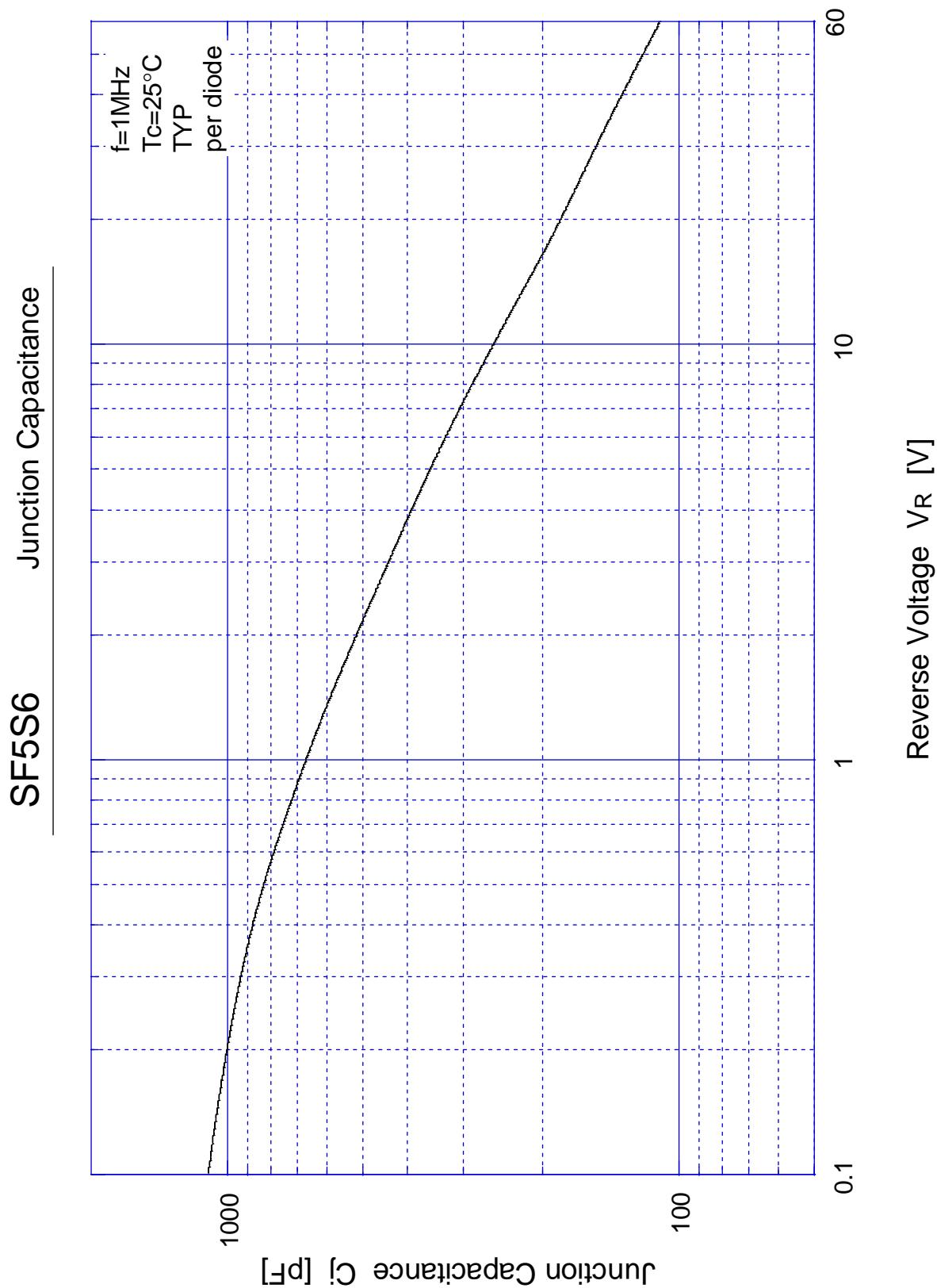
#### ● Electrical Characteristics (If not specified $T_c=25^\circ\text{C}$ )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=5\text{A}$ Pulse measurement	Max.0.58	V
Reverse Current	$I_R$	$V_R=V_{RM}$ Pulse measurement	Max. 4.5	mA
Junction Capacitance	$C_j$	$f=1\text{MHz}$ , $V_R=10\text{V}$	Typ.260	pF
Thermal Resistance	$\theta_{jc}$	junction to case	Max.3.5	°C/W

# SF5S6

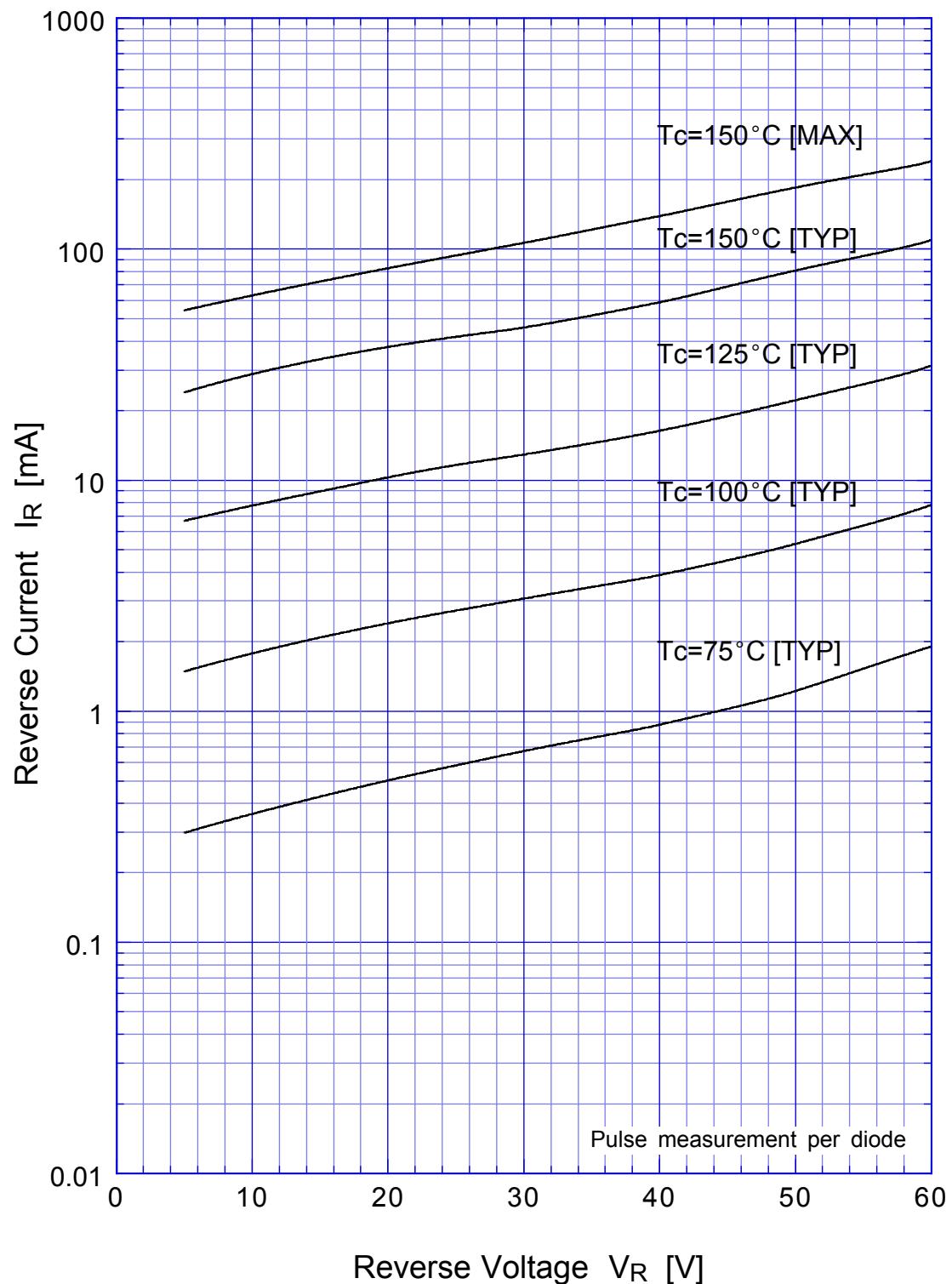
## Forward Voltage





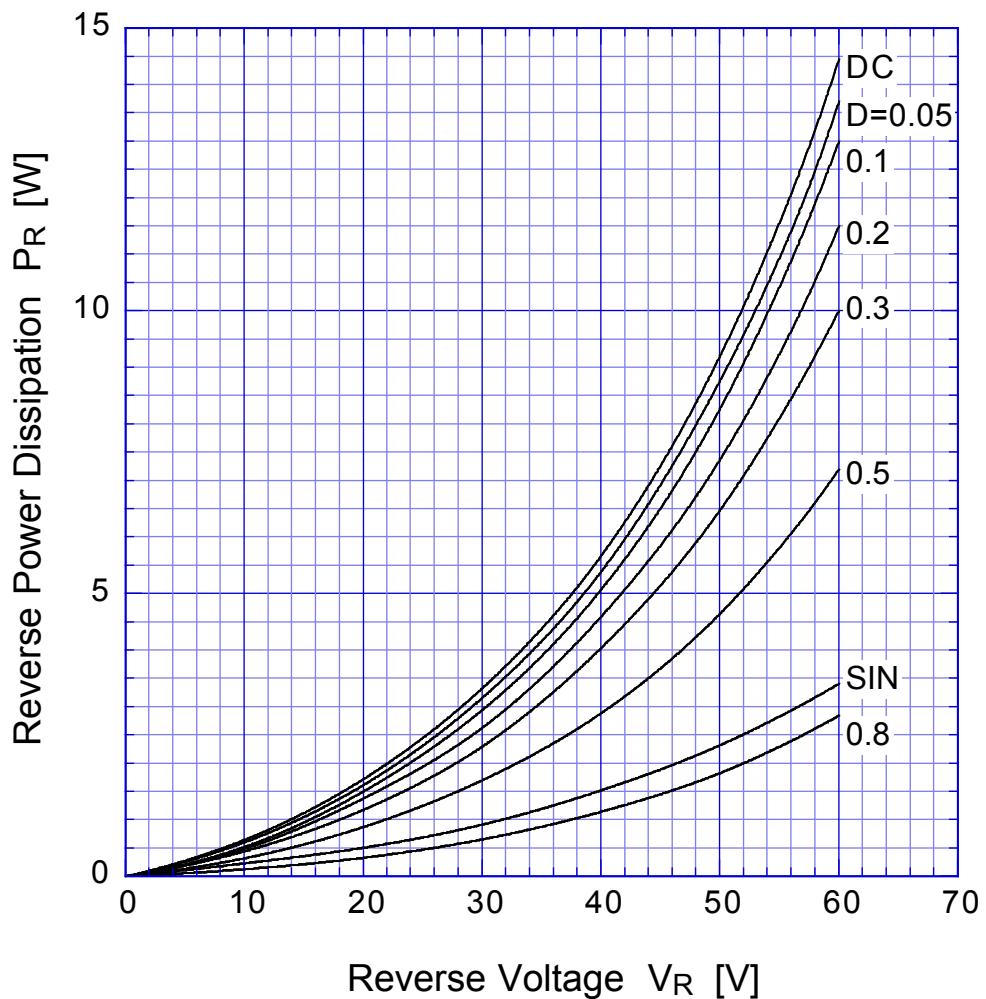
# SF5S6

## Reverse Current

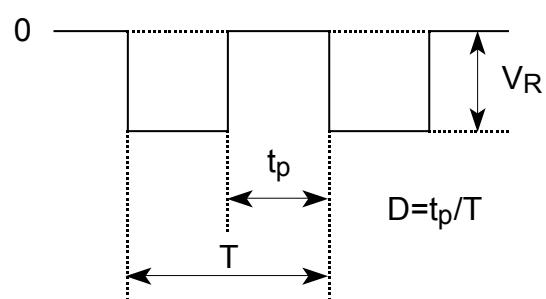


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Reverse Power Dissipation

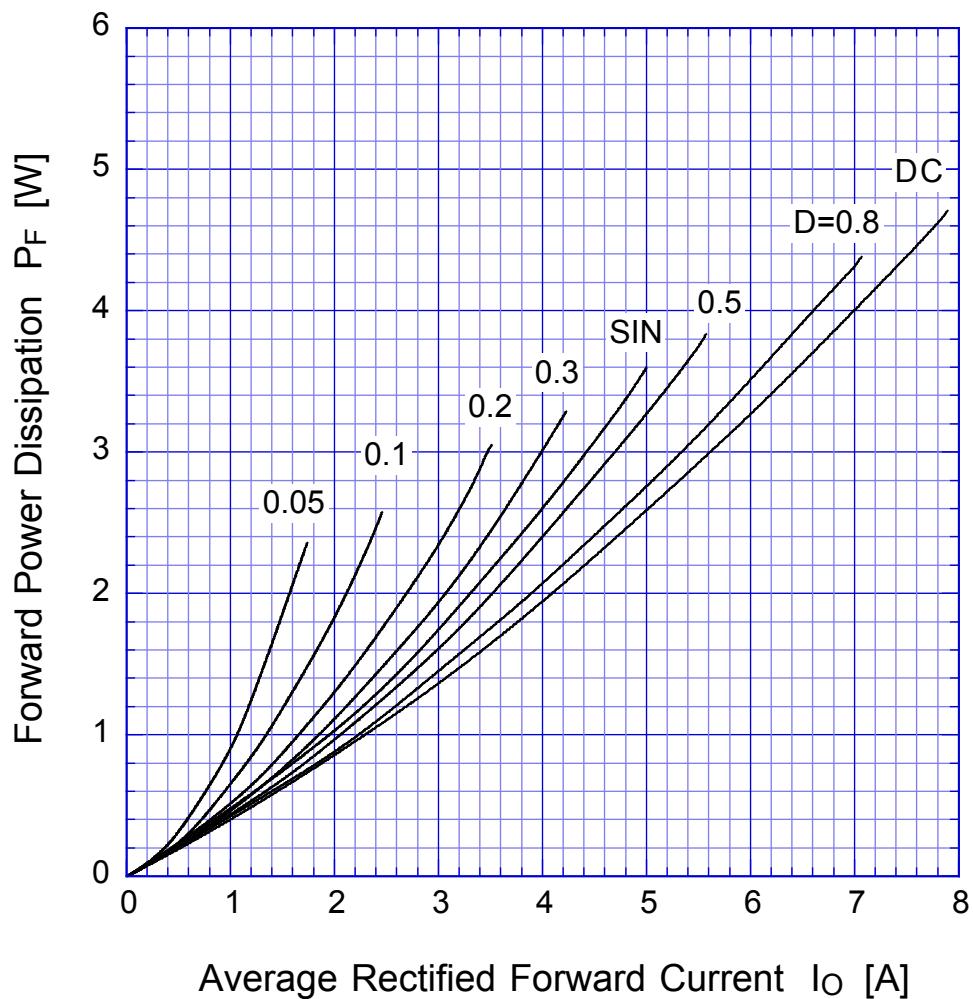


$T_j = 150^\circ\text{C}$

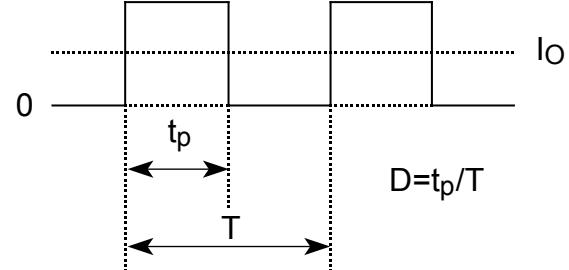


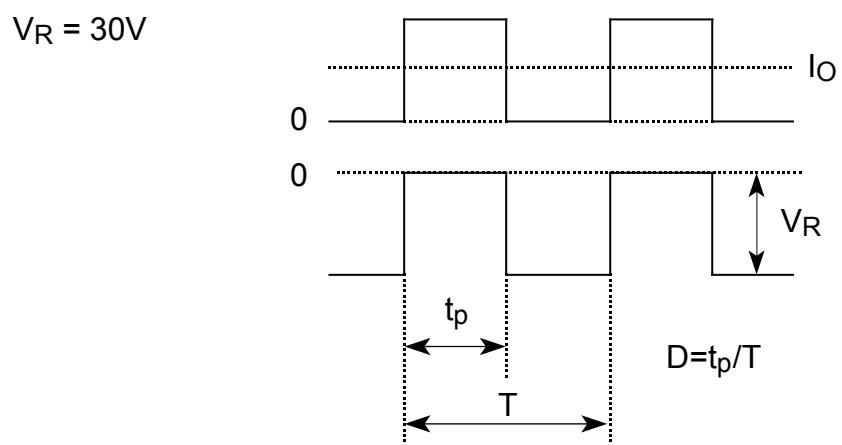
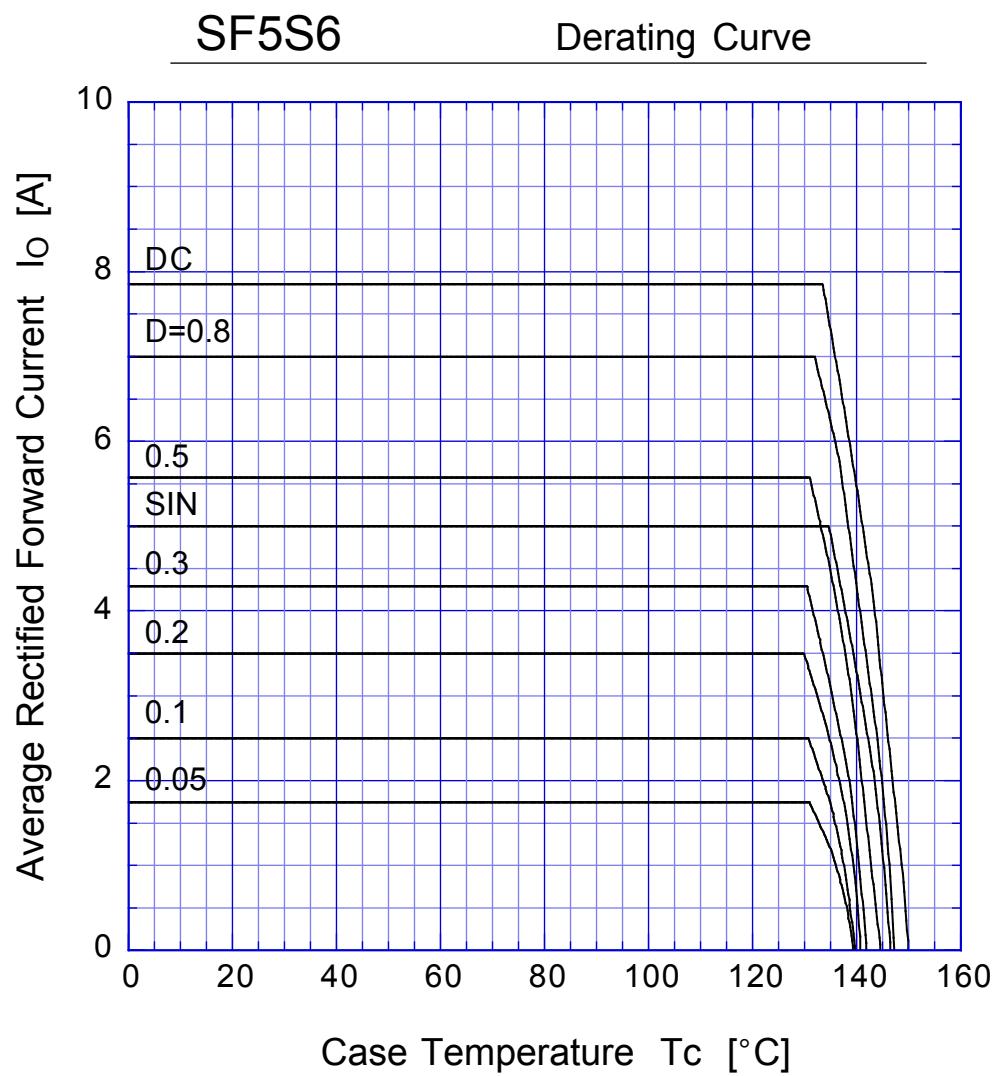
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Forward Power Dissipation



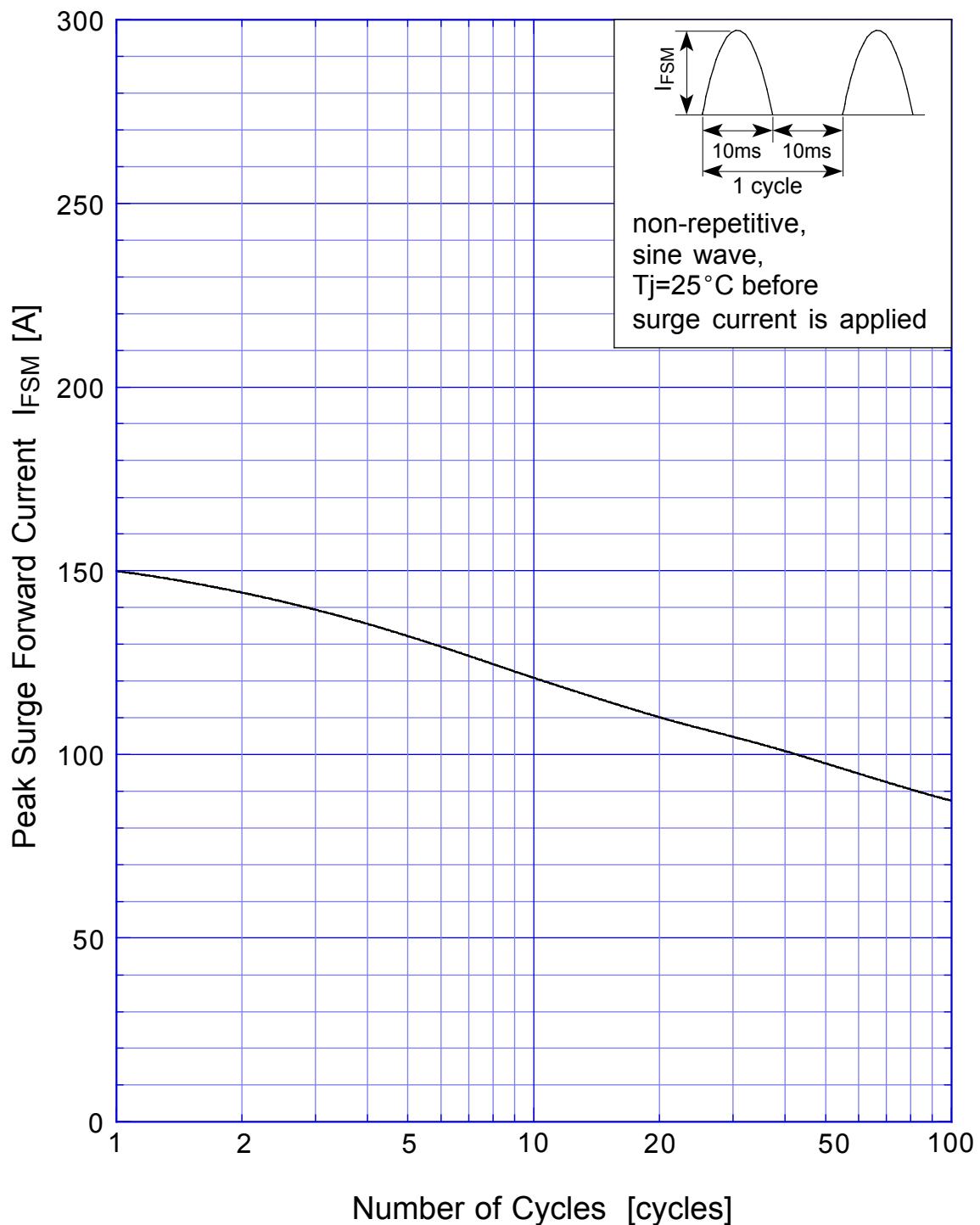
$T_j = 150^\circ\text{C}$



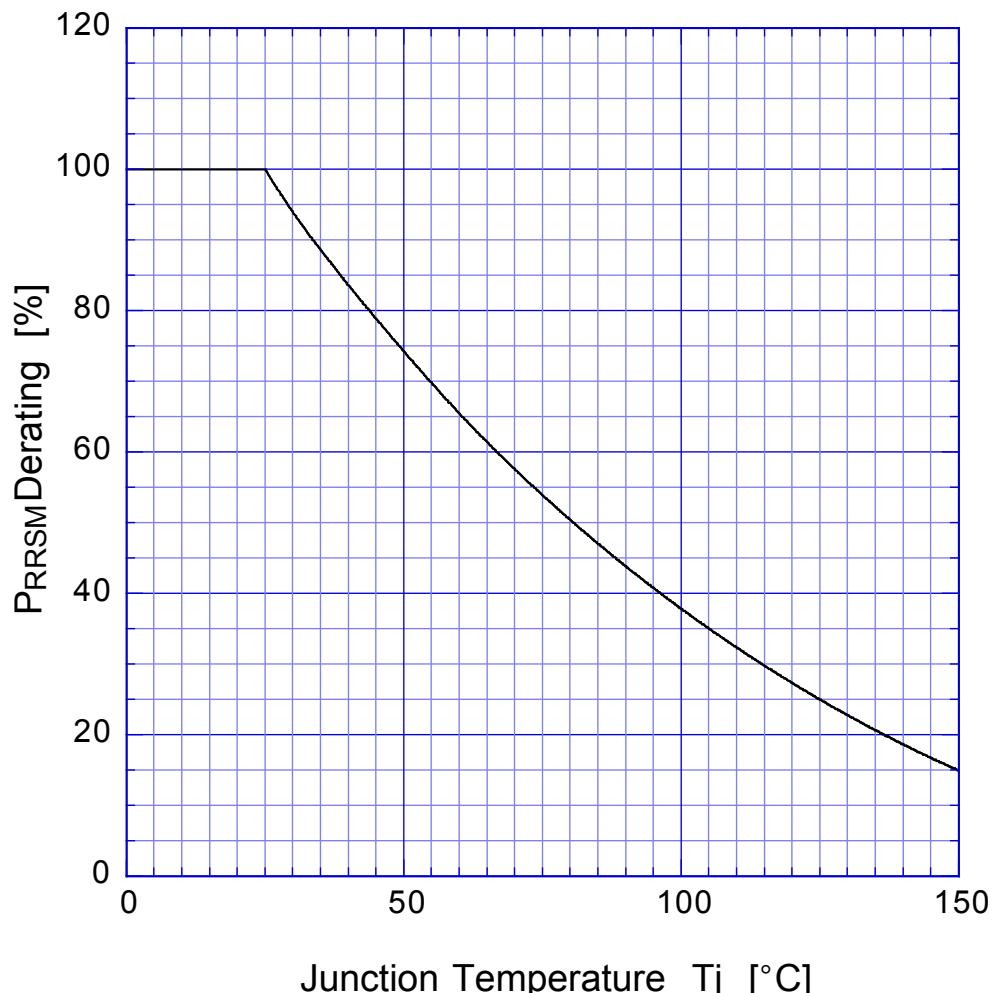


# SF5S6

## Peak Surge Forward Capability



## SBD Repetitive Surge Reverse Power Derating Curve



## SBD Repetitive Surge Reverse Power Capability

