

# SHINDENGEN

## Schottky Rectifiers (SBD)

Dual

# SF30SC3L

## 30V 30A

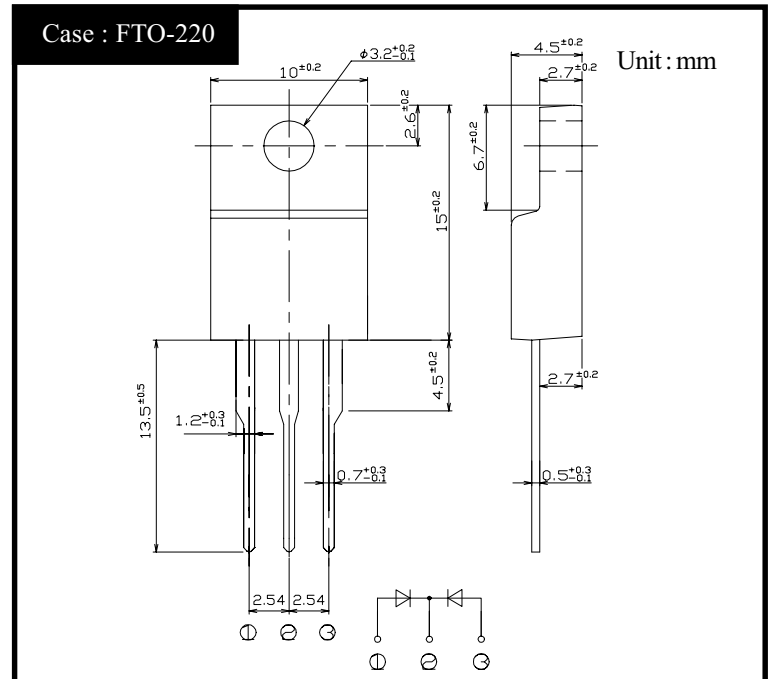
### FEATURES

- Tj150°C
- Low  $V_F=0.45V$
- $P_{RRSM}$  avalanche guaranteed
- Fully Isolated Molding
- Dielectric strength 2kV guaranteed

### APPLICATION

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

### OUTLINE DIMENSIONS



### RATINGS

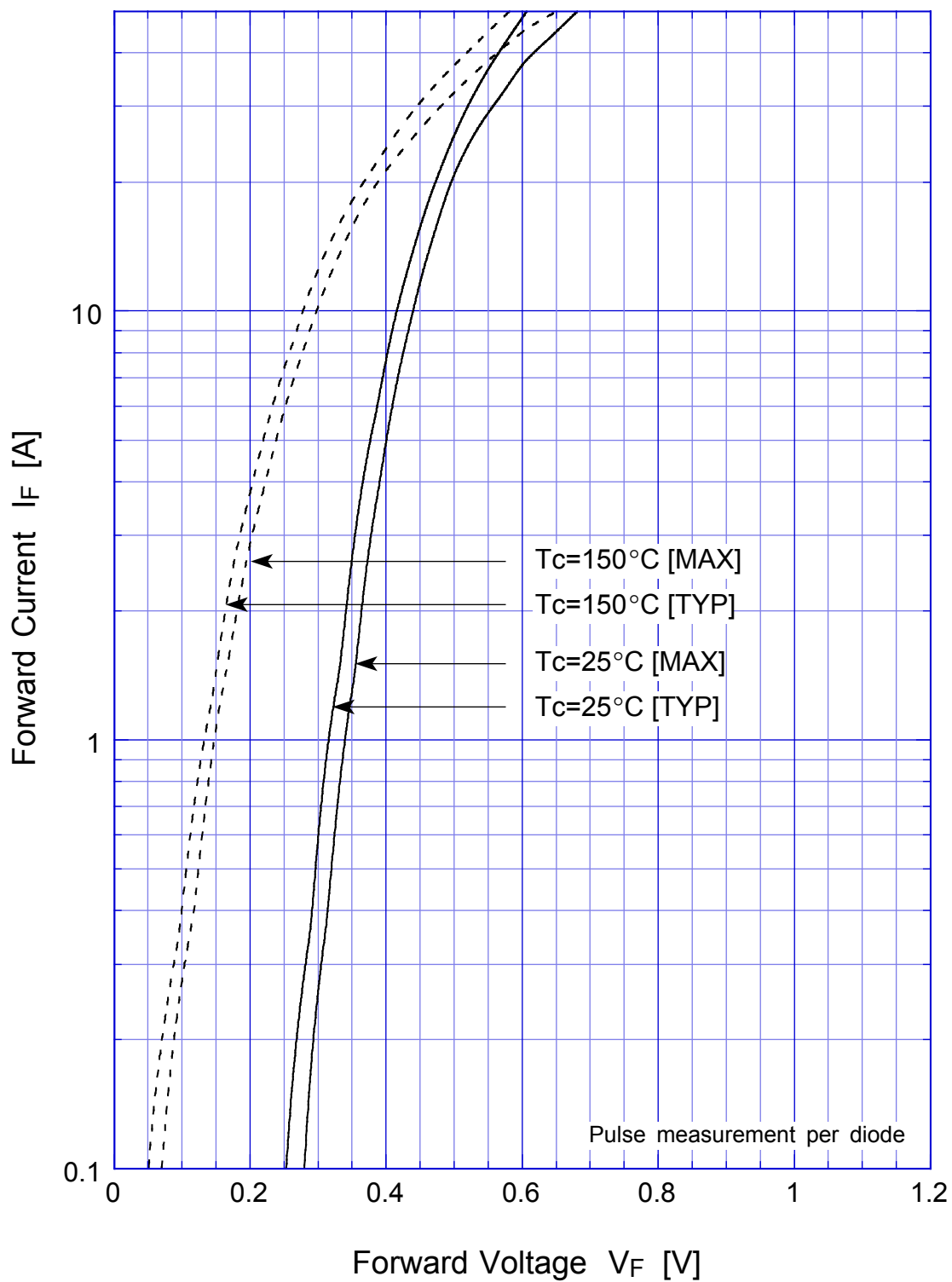
#### ● Absolute Maximum Ratings (If not specified $T_c=25^\circ C$ )

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55~150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	$V_{RM}$		30	V
Repetitive Peak Surge Reverse Voltage	$V_{RRSM}$	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	$I_O$	50Hz sine wave, R-load, Rating for each diode $I_o/2$ , $T_c=111^\circ C$	30	A
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ C$	350	A
Repetitive Peak Surge Reverse Power	$P_{RRSM}$	Pulse width 10 $\mu$ s, Rating of per diode, $T_j=25^\circ C$	1000	W
Dielectric Strength	Vdis	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque:0.3N·m)	0.5	N·m

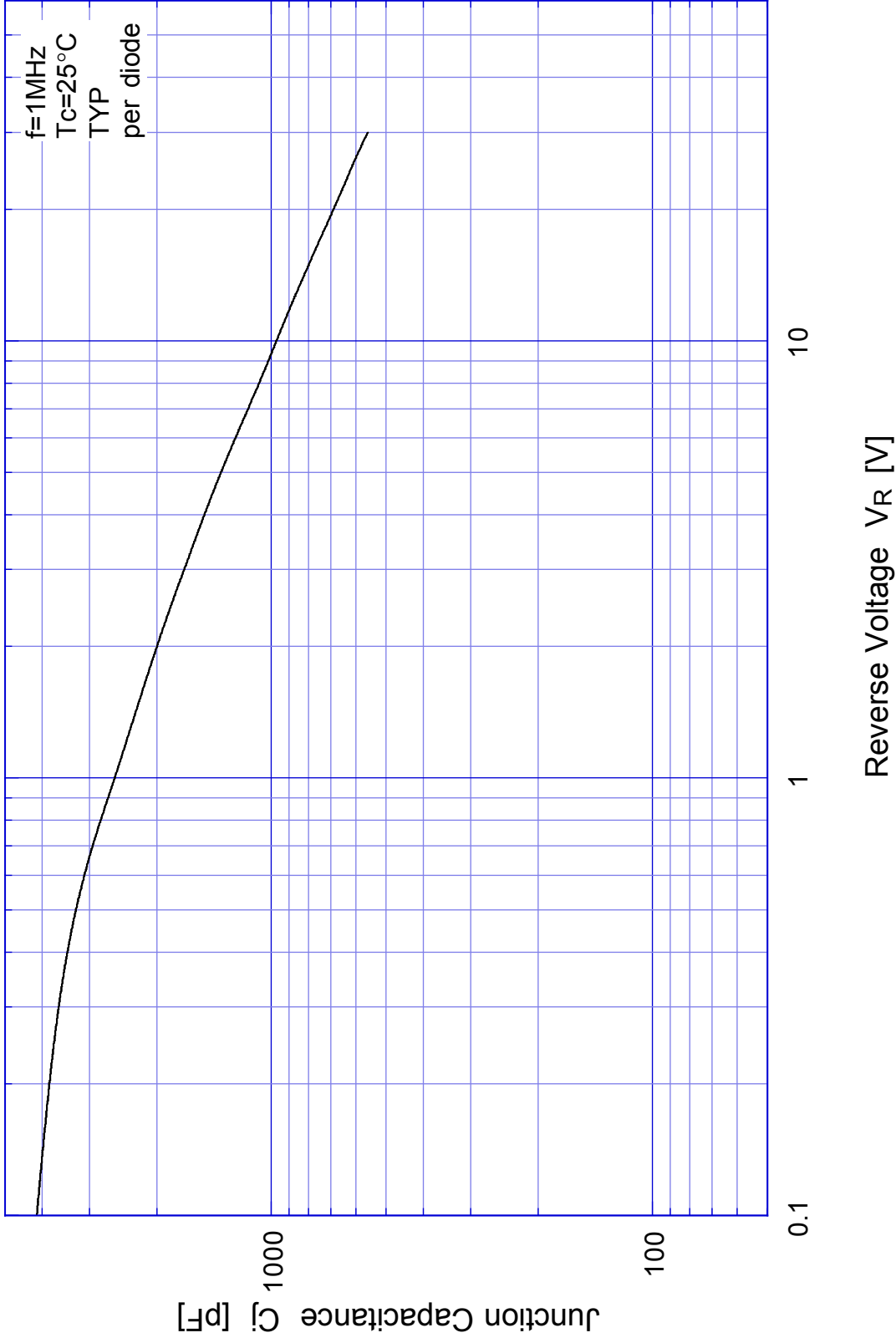
#### ● Electrical Characteristics (If not specified $T_c=25^\circ C$ )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=12.5A$ , Pulse measurement, Rating of per diode	Max.0.45	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement, Rating of per diode	Max.15	mA
Junction Capacitance	$C_j$	$f=1MHz$ , $V_R=10V$ , Rating of per diode	Typ.960	pF
Thermal Resistance	$\theta_{jc}$	junction to case	Max.2.0	°C/W

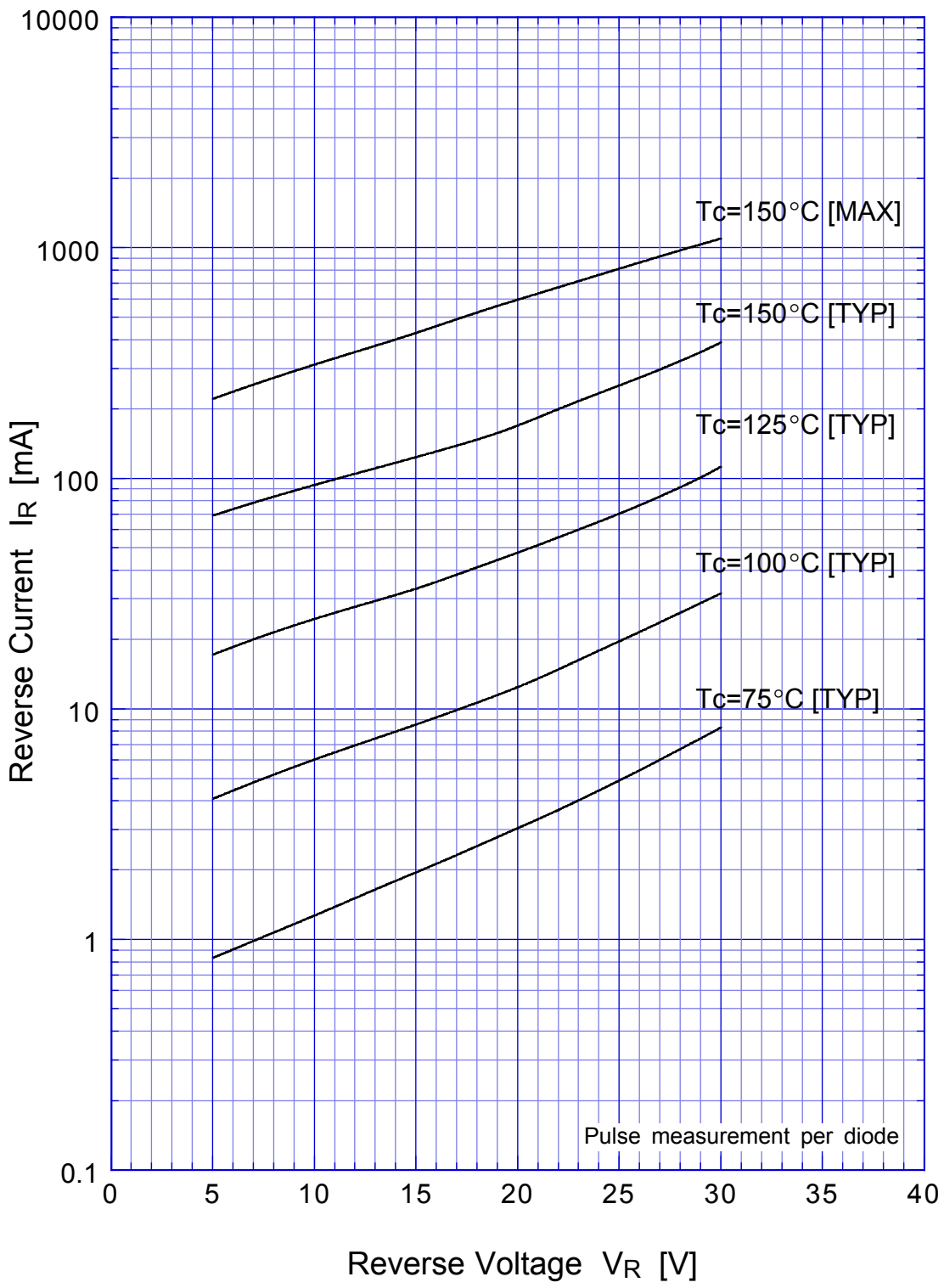
# SF30SC3L Forward Voltage



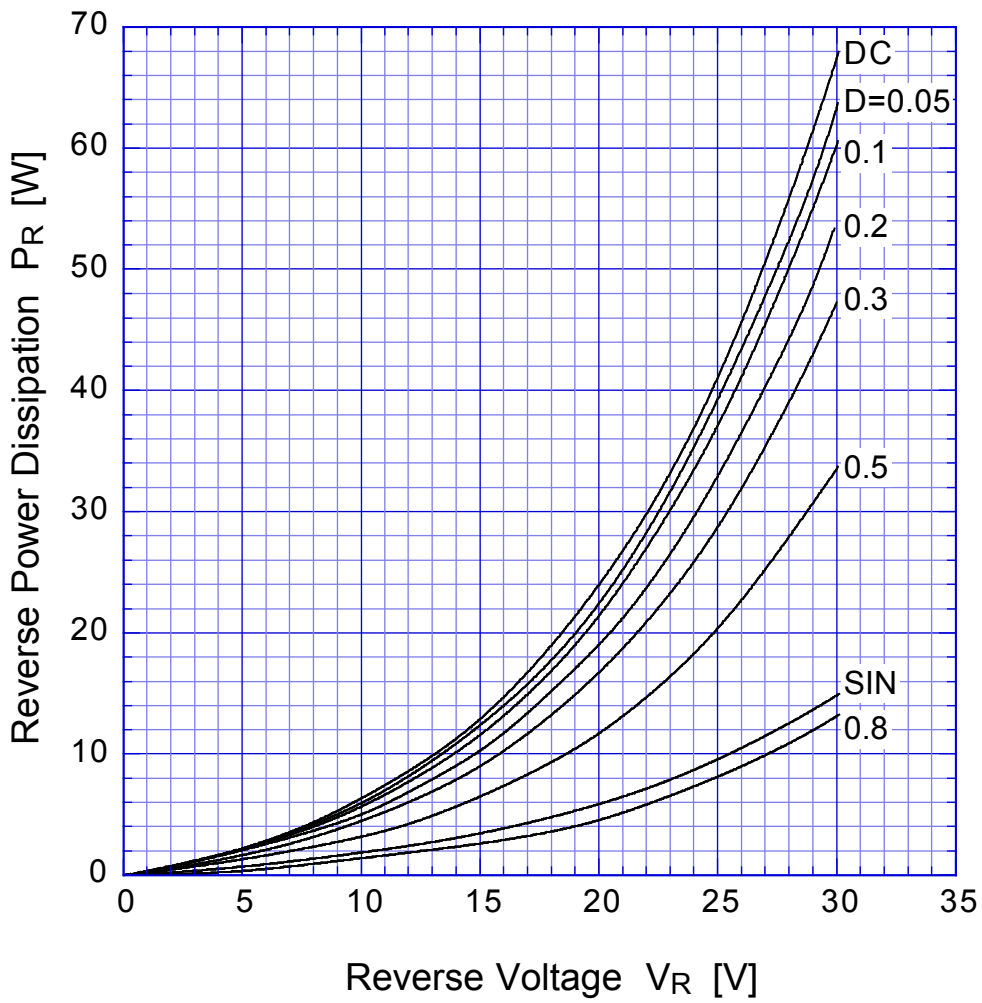
# SF30SC3L Junction Capacitance



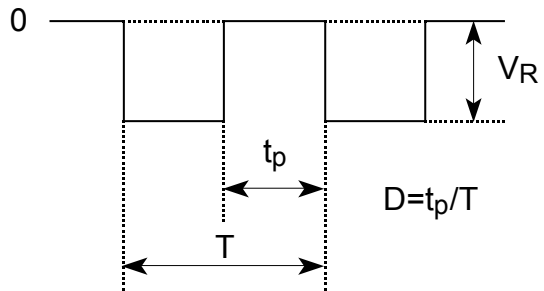
# SF30SC3L Reverse Current



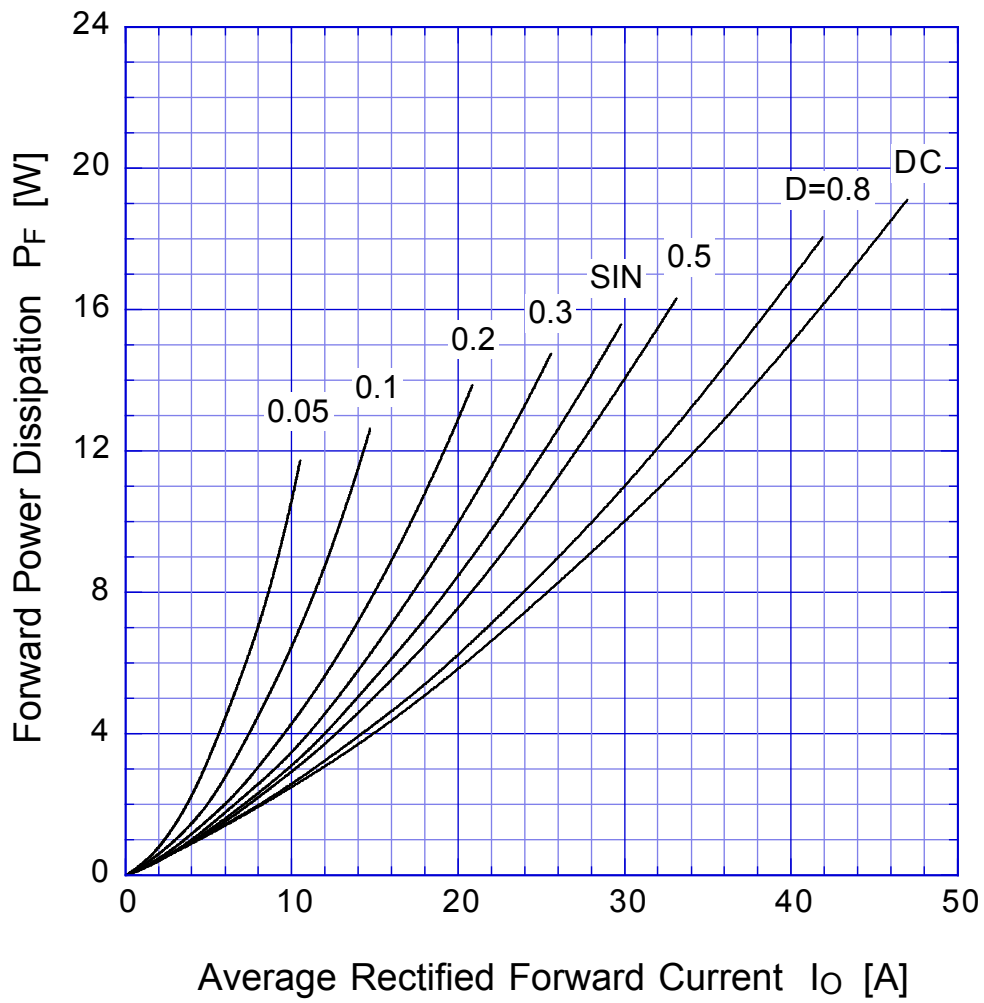
# SF30SC3L Reverse Power Dissipation



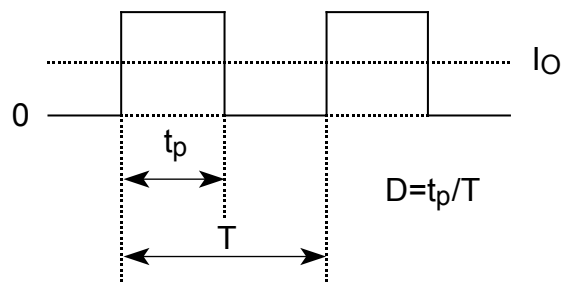
$T_j = 150^\circ\text{C}$



# SF30SC3L Forward Power Dissipation

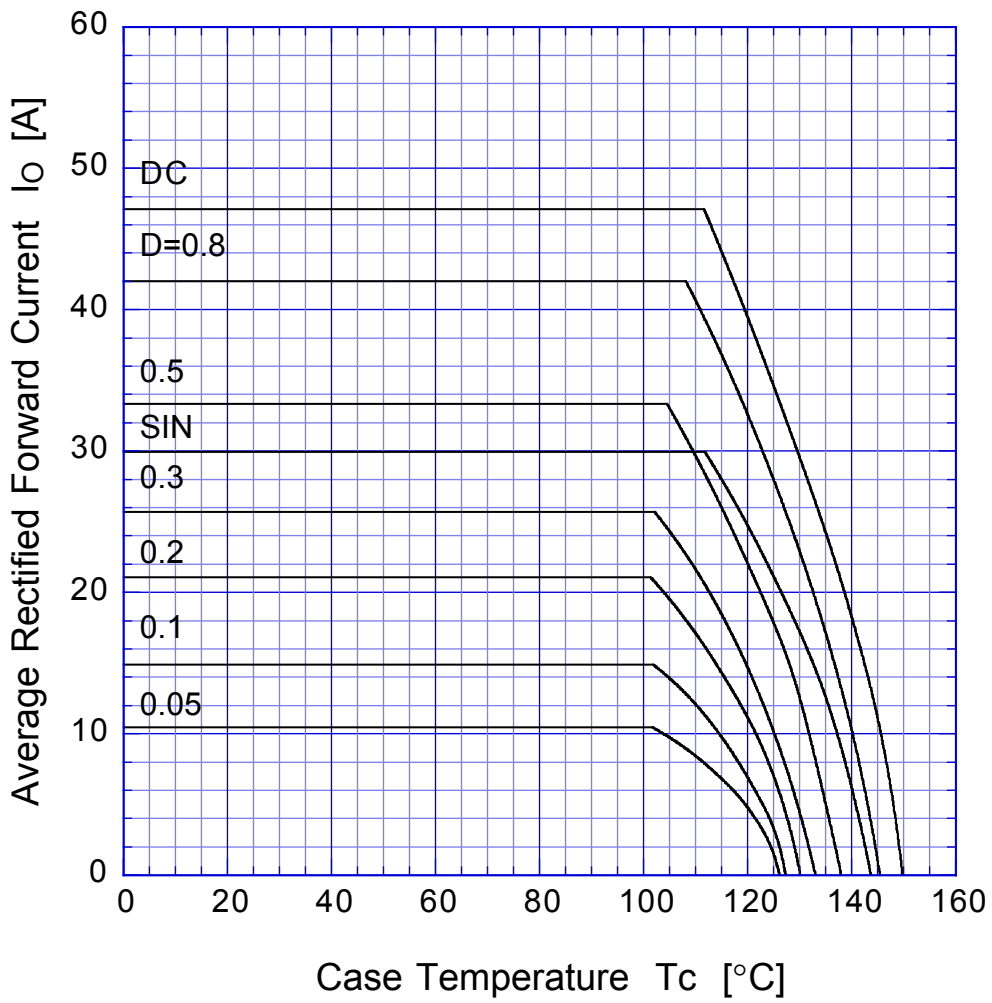


$T_j = 150^\circ\text{C}$



# SF30SC3L

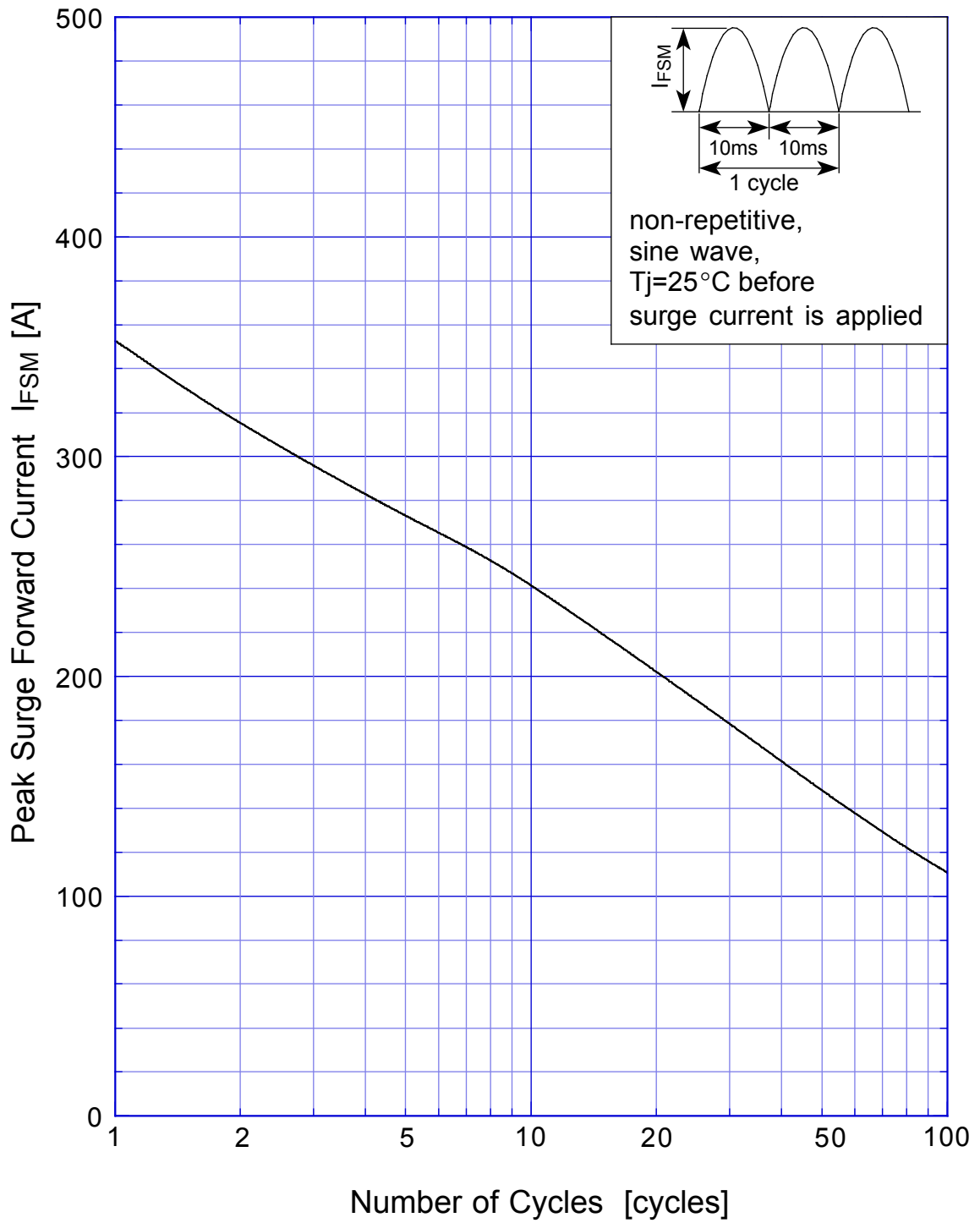
## Derating Curve



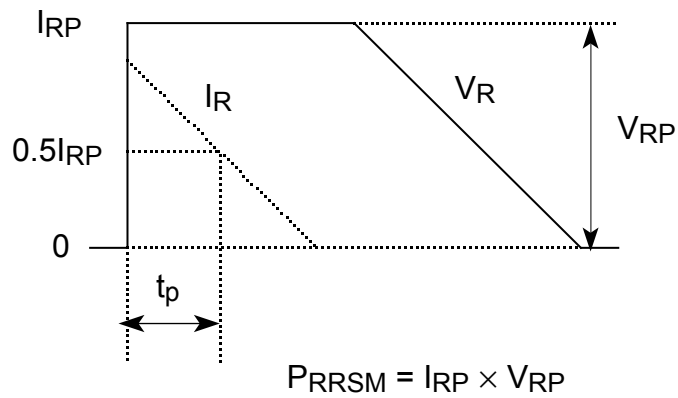
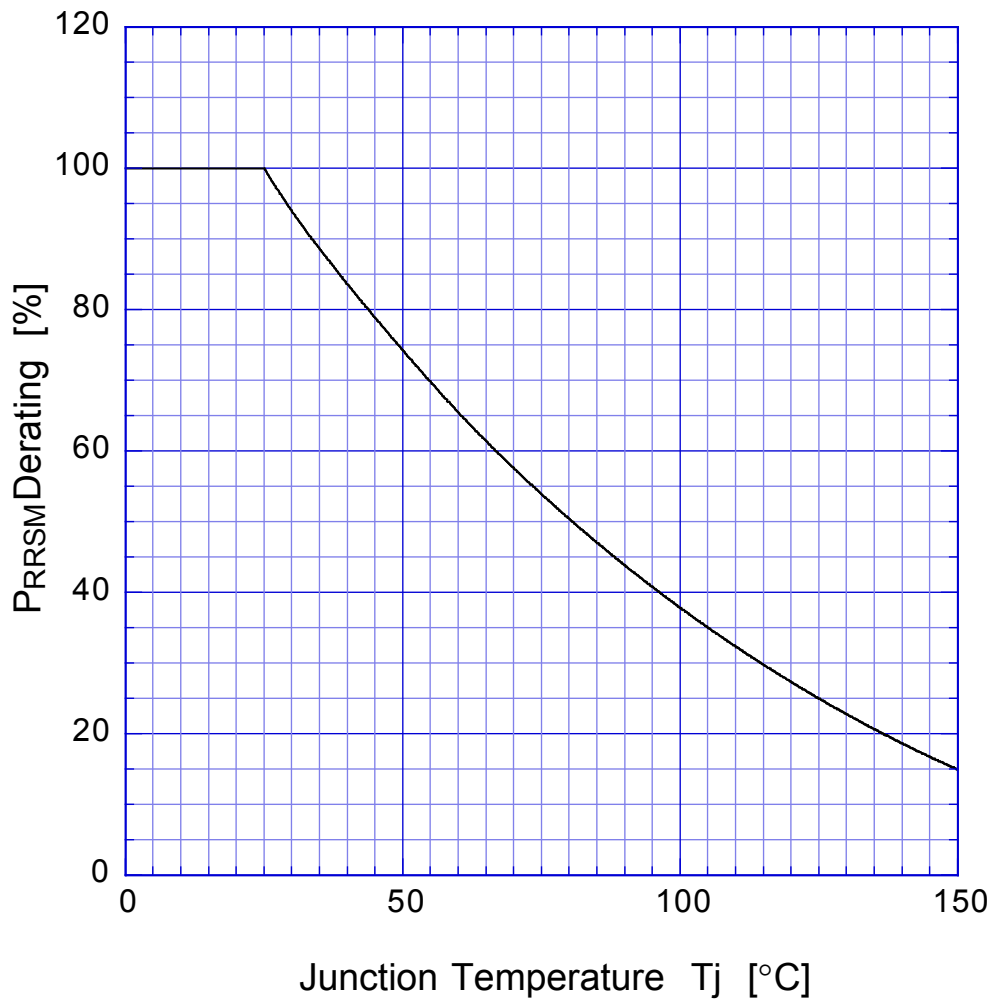
$V_R = 15V$



# SF30SC3L Peak Surge Forward Capability



## SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

