

**S30SC4M**

**40V 30A**

### FEATURES

T<sub>j</sub>150

P<sub>RRSM</sub> avalanche guaranteed

Small j<sub>c</sub>

High current capacity

### APPLICATION

Switching power supply

DC/DC converter

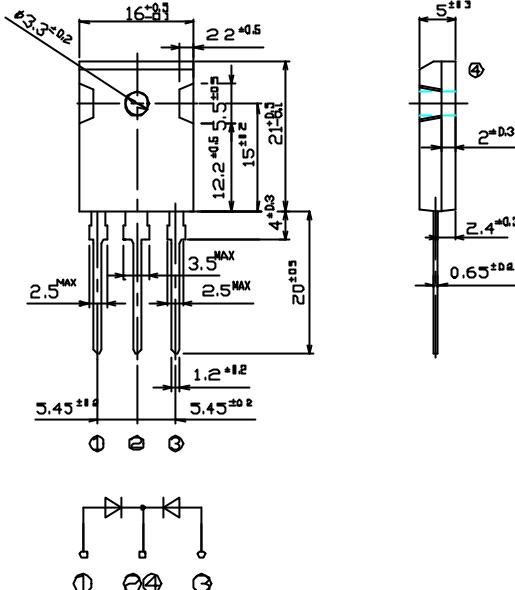
Home Appliances, Office Equipment

Telecommunication

### OUTLINE DIMENSIONS

Case : MTO-3P

Unit : mm



### 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>		40	V
Repetitive Peak Surge Reverse Voltage	V <sub>RRSM</sub>	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I <sub>o</sub>	50Hz sine wave, R-load, Rating for each diode I <sub>o</sub> /2, T <sub>c</sub> =126	30	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =125	300	A
Repetitive Peak Surge Reverse Power	P <sub>RRSM</sub>	Pulse width 10 μ s. Rating of per diode, T <sub>j</sub> =25	1000	W
Mounting Torque	T <sub>OR</sub>	(Recommended torque : 0.5N·m)	0.8	N·m

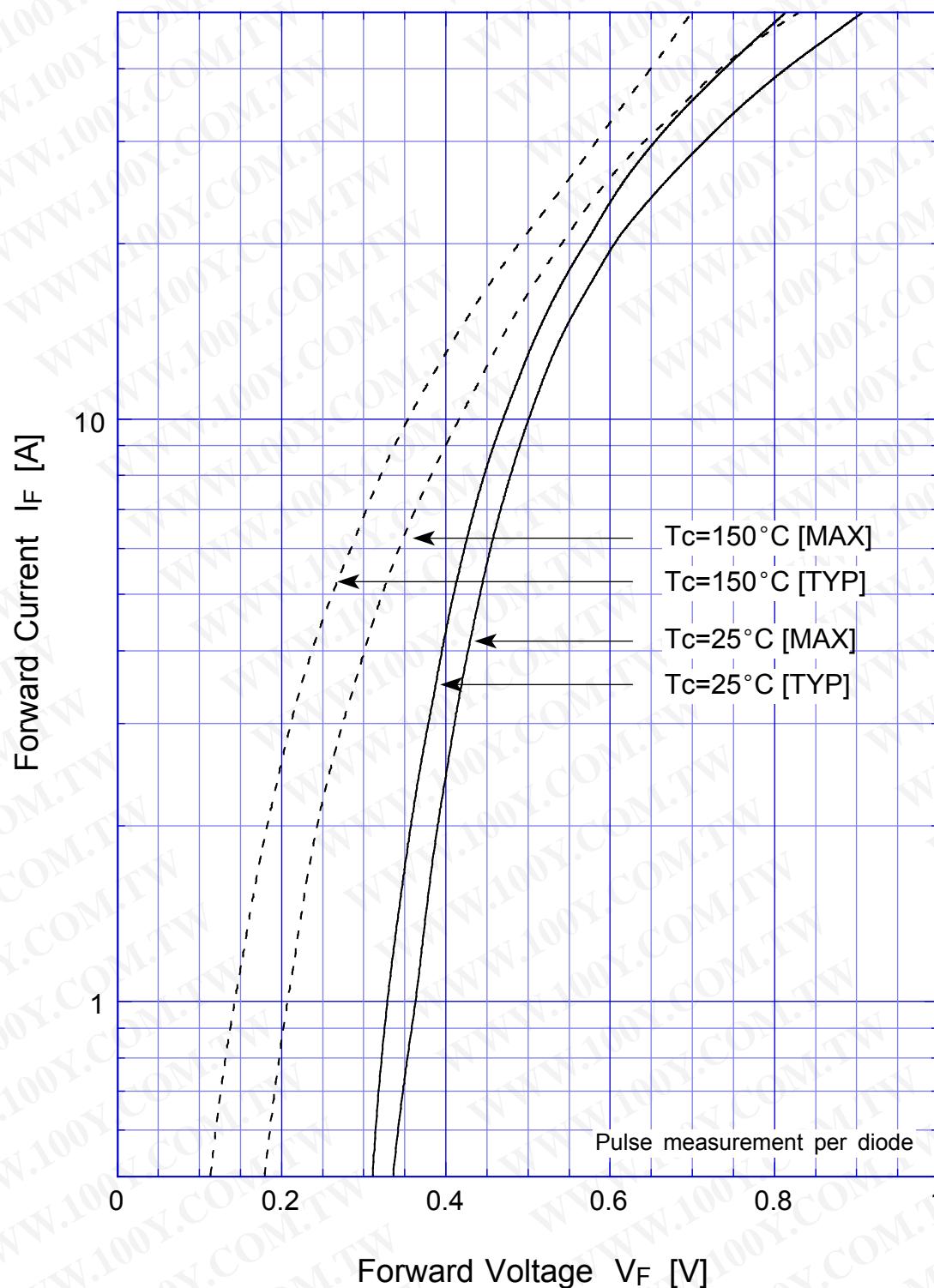
Electrical Characteristics (If not specified T<sub>c</sub>=25 )

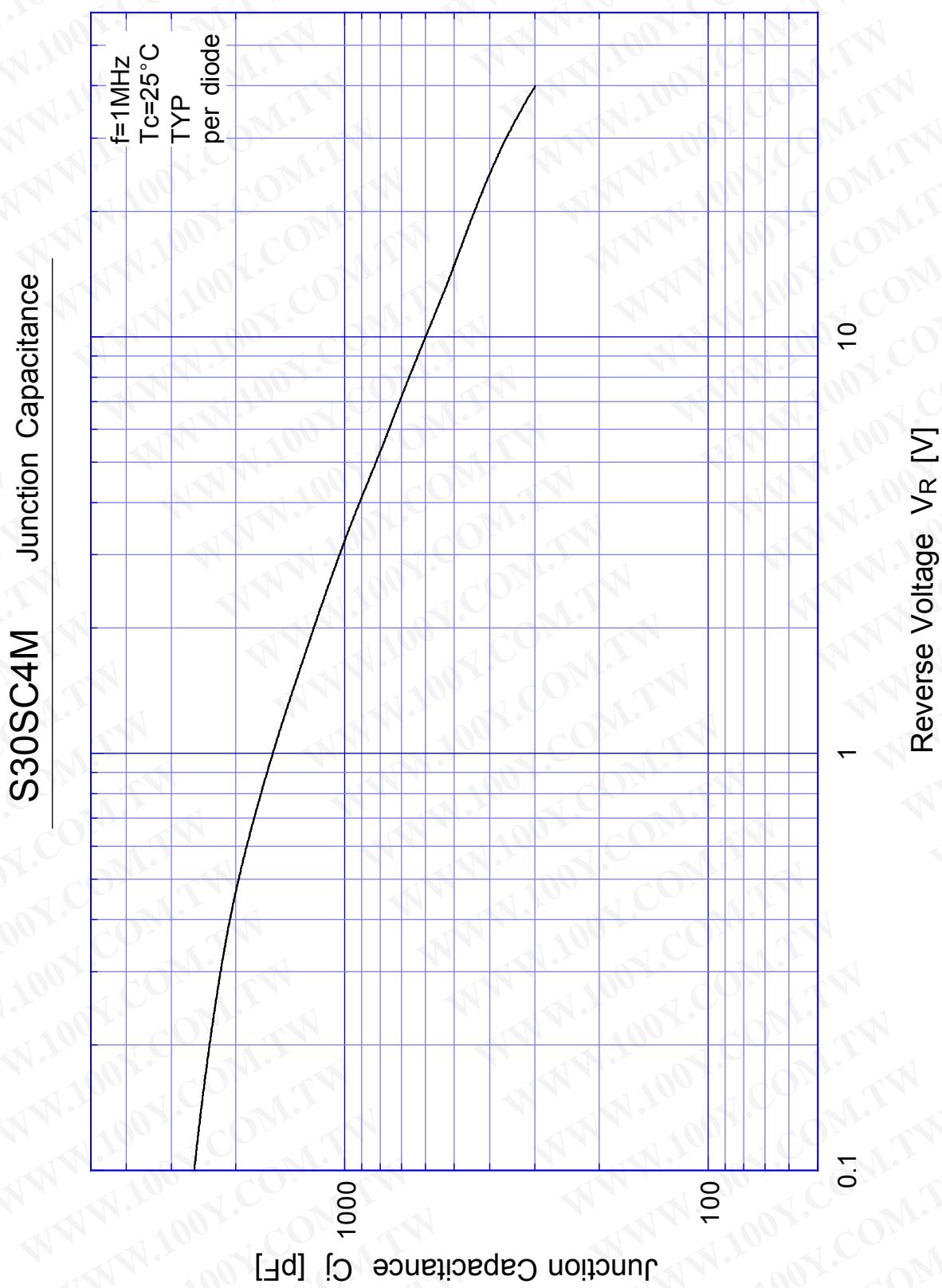
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =15A, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement, Rating of per diode	Max.10	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V, Rating of per diode	Typ.590	pF
Thermal Resistance	j <sub>c</sub>	junction to case	Max.1.0	/W

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## Forward Voltage

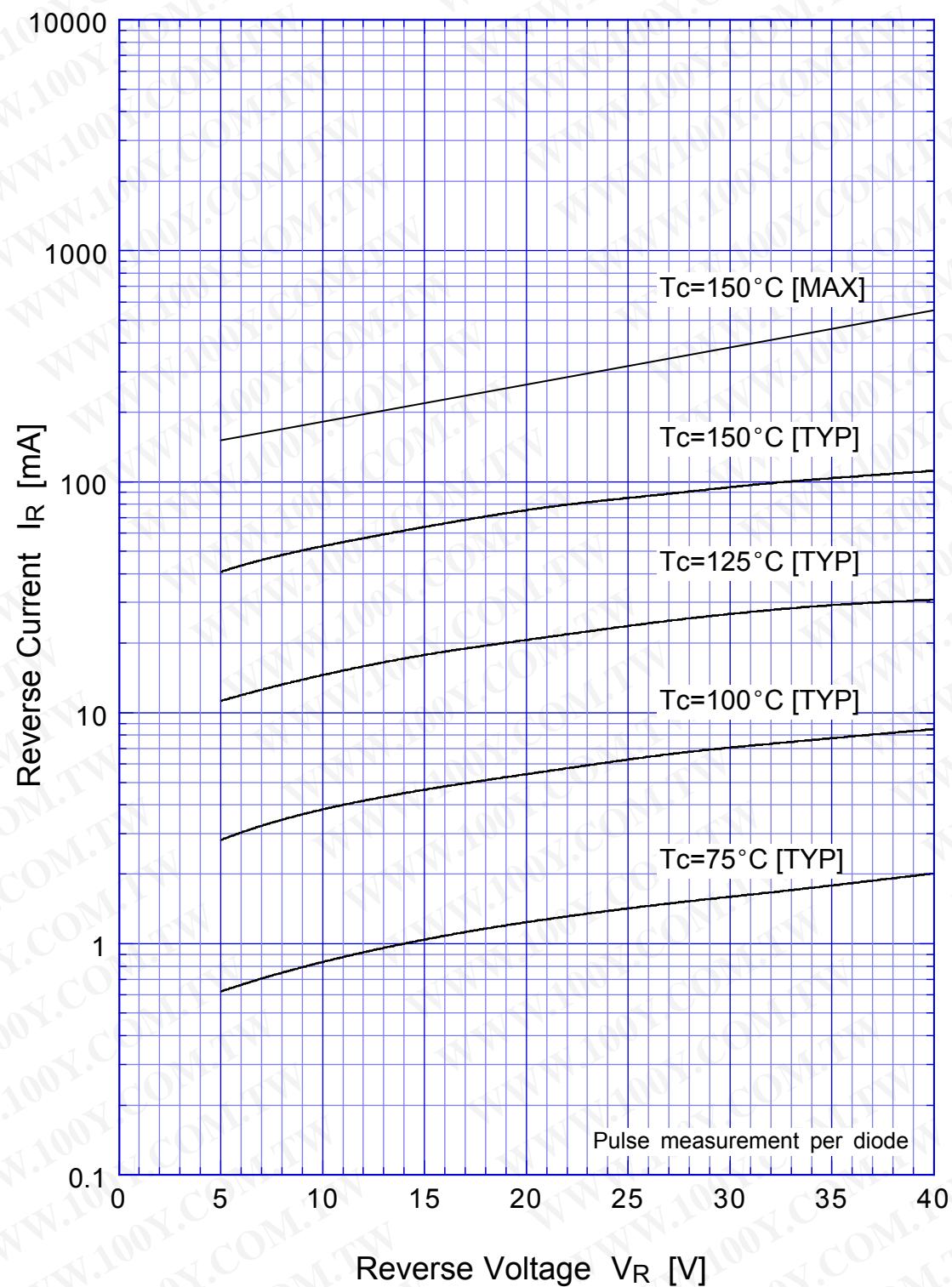




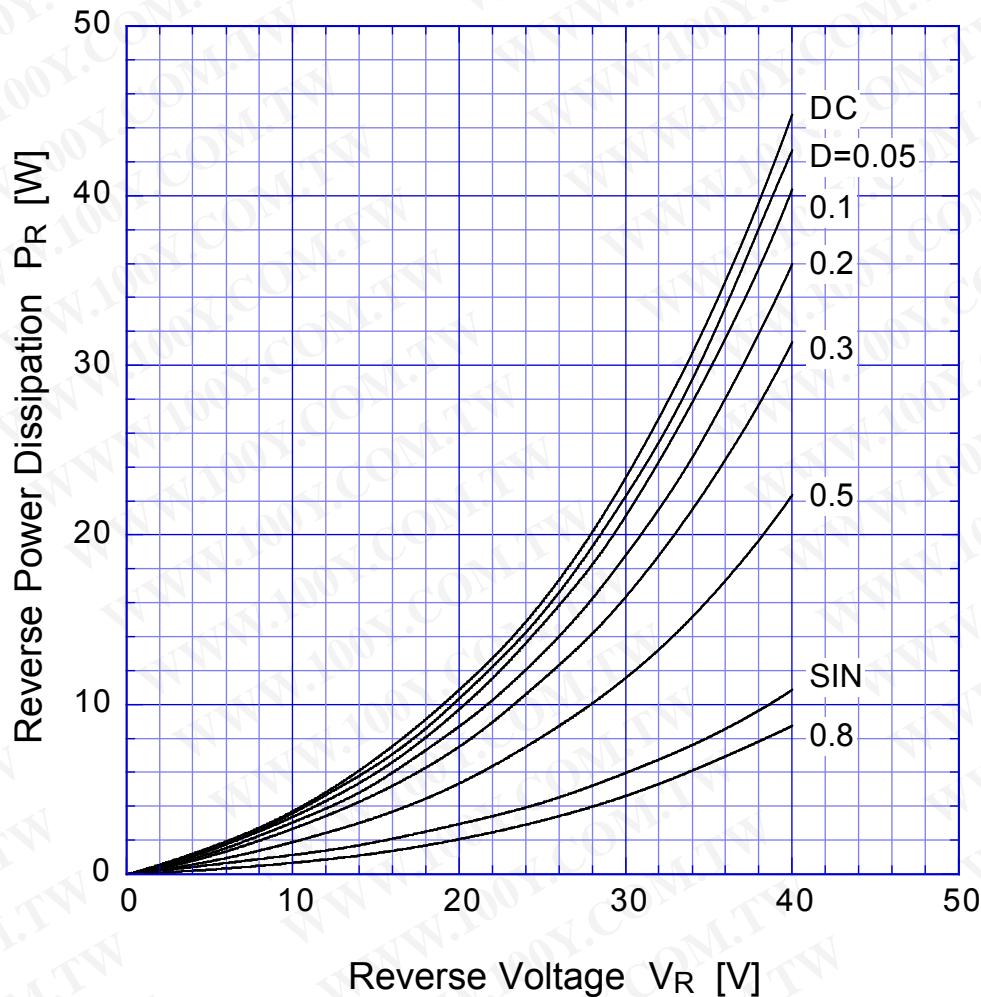
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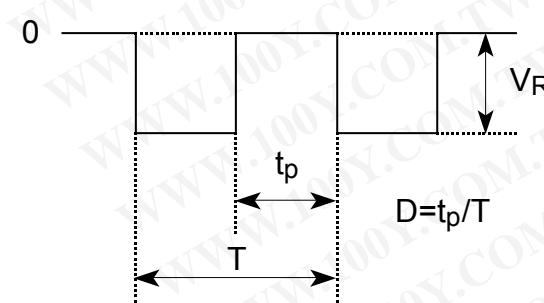
## Reverse Current



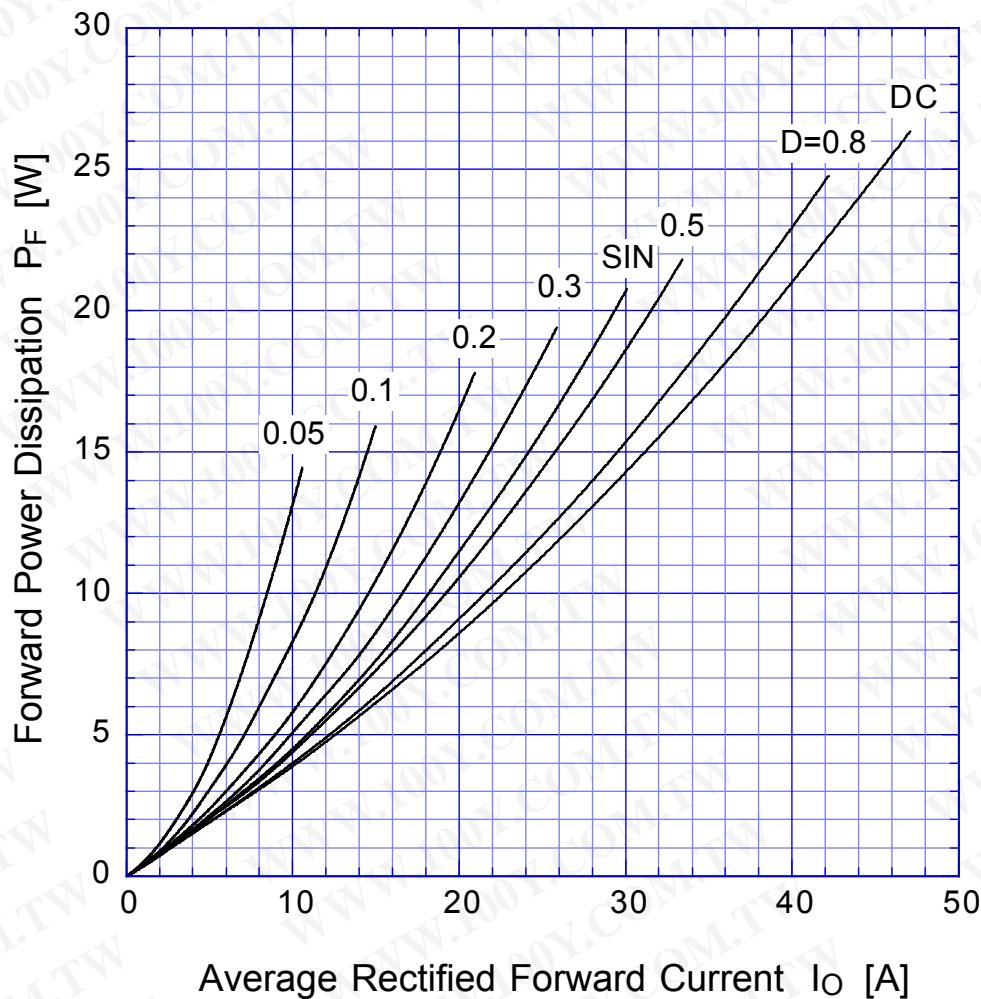
## S30SC4M Reverse Power Dissipation



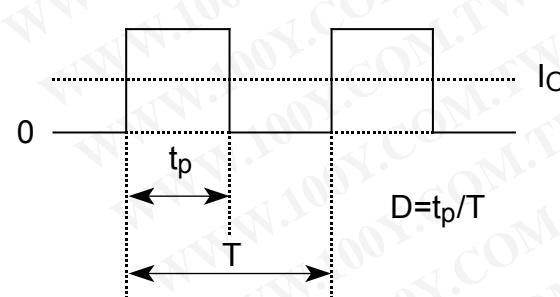
$T_j = 150^\circ\text{C}$

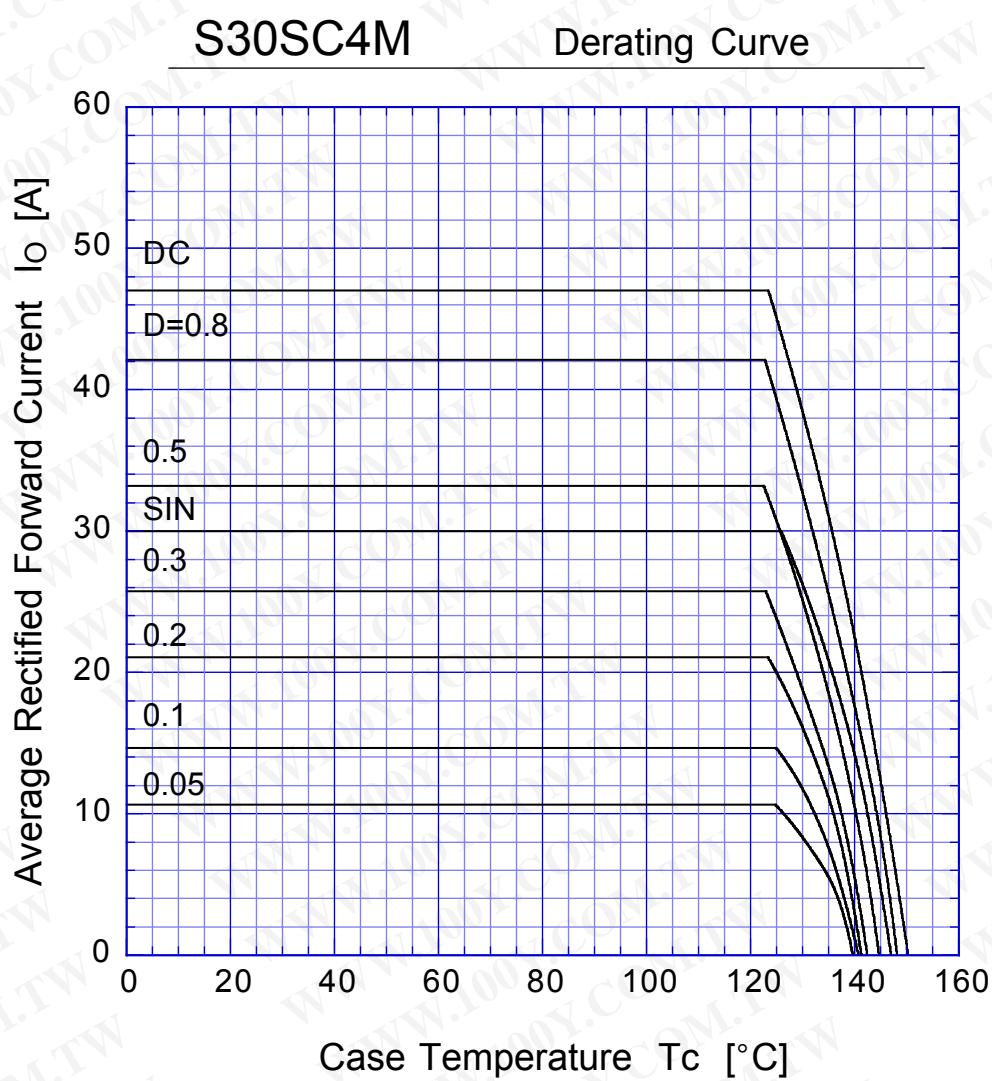


**S30SC4M** Forward Power Dissipation

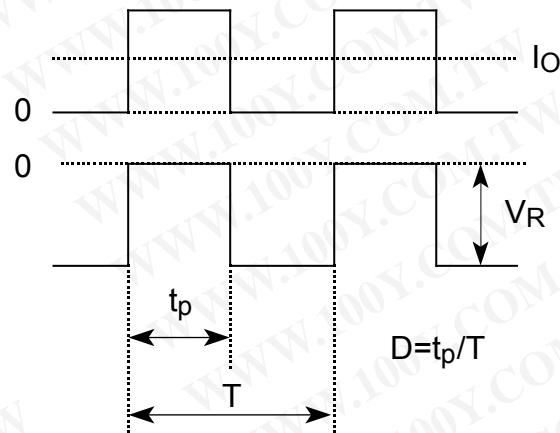


$T_J = 150^\circ\text{C}$



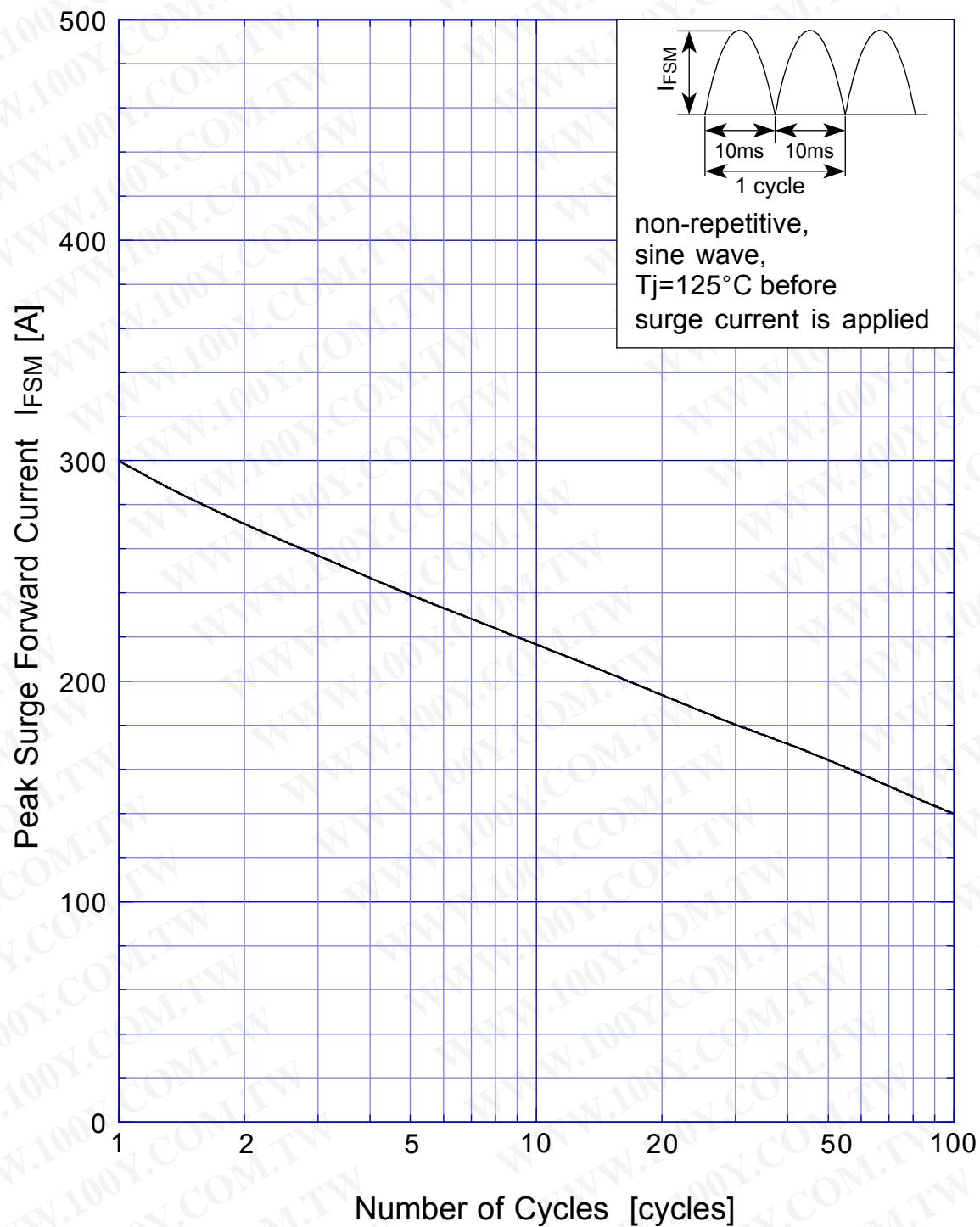


$V_R = 20V$

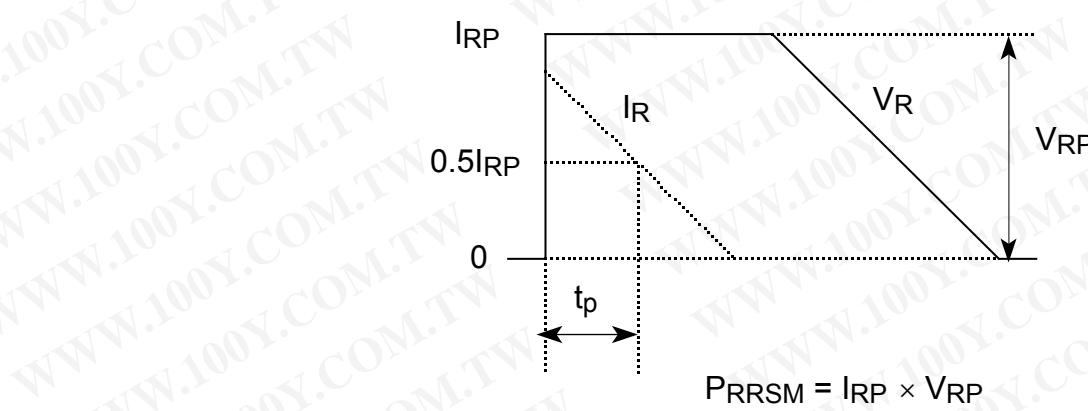
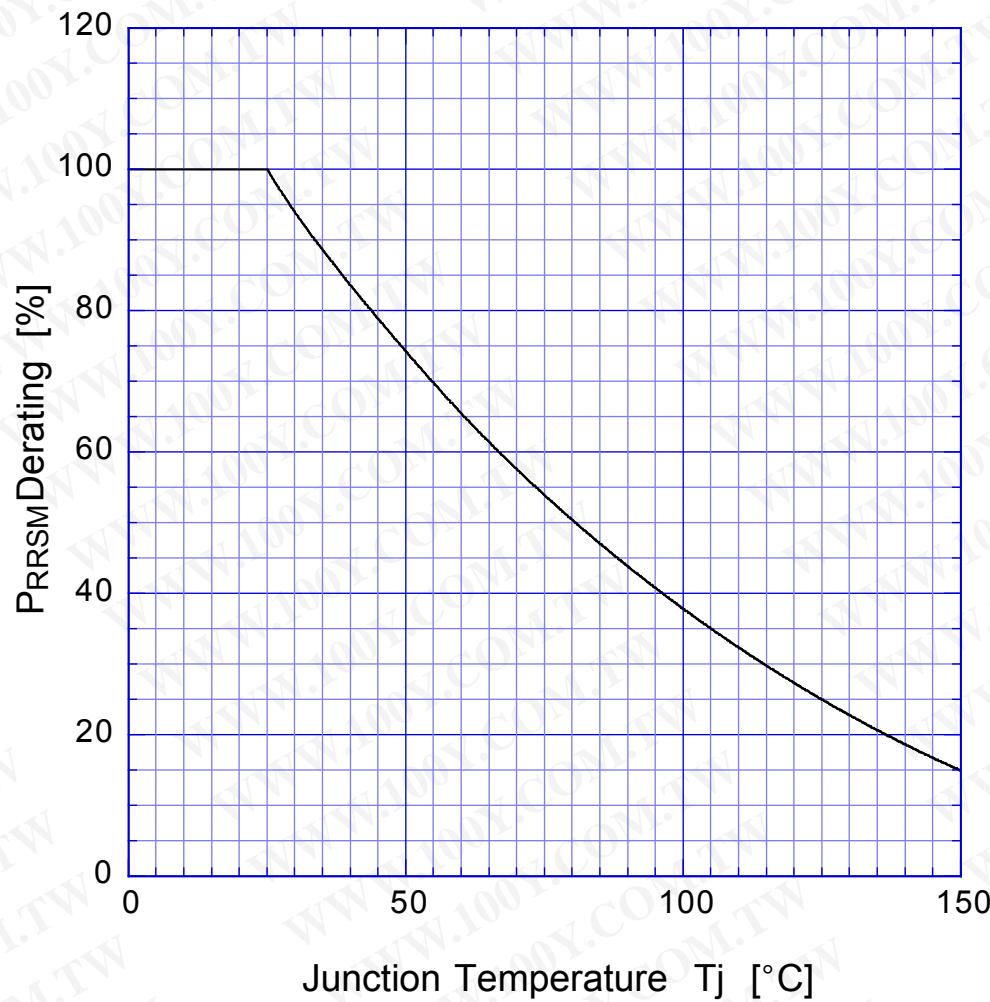


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## Peak Surge Forward Capability



## SBD Repetitive Surge Reverse Power Derating Curve



## SBD Repetitive Surge Reverse Power Capability

