

SHINDENGEN

Schottky Rectifiers (SBD)

Single

DE10S3L

30V 10A

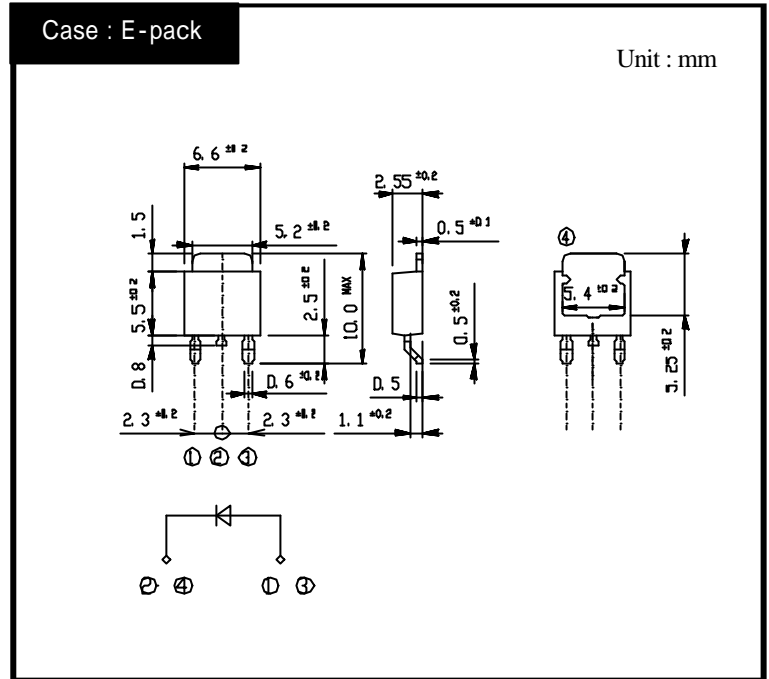
FEATURES

- SMT
- Tj150
- Low $V_F=0.45V$
- P_{RRSM} 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_c=25)

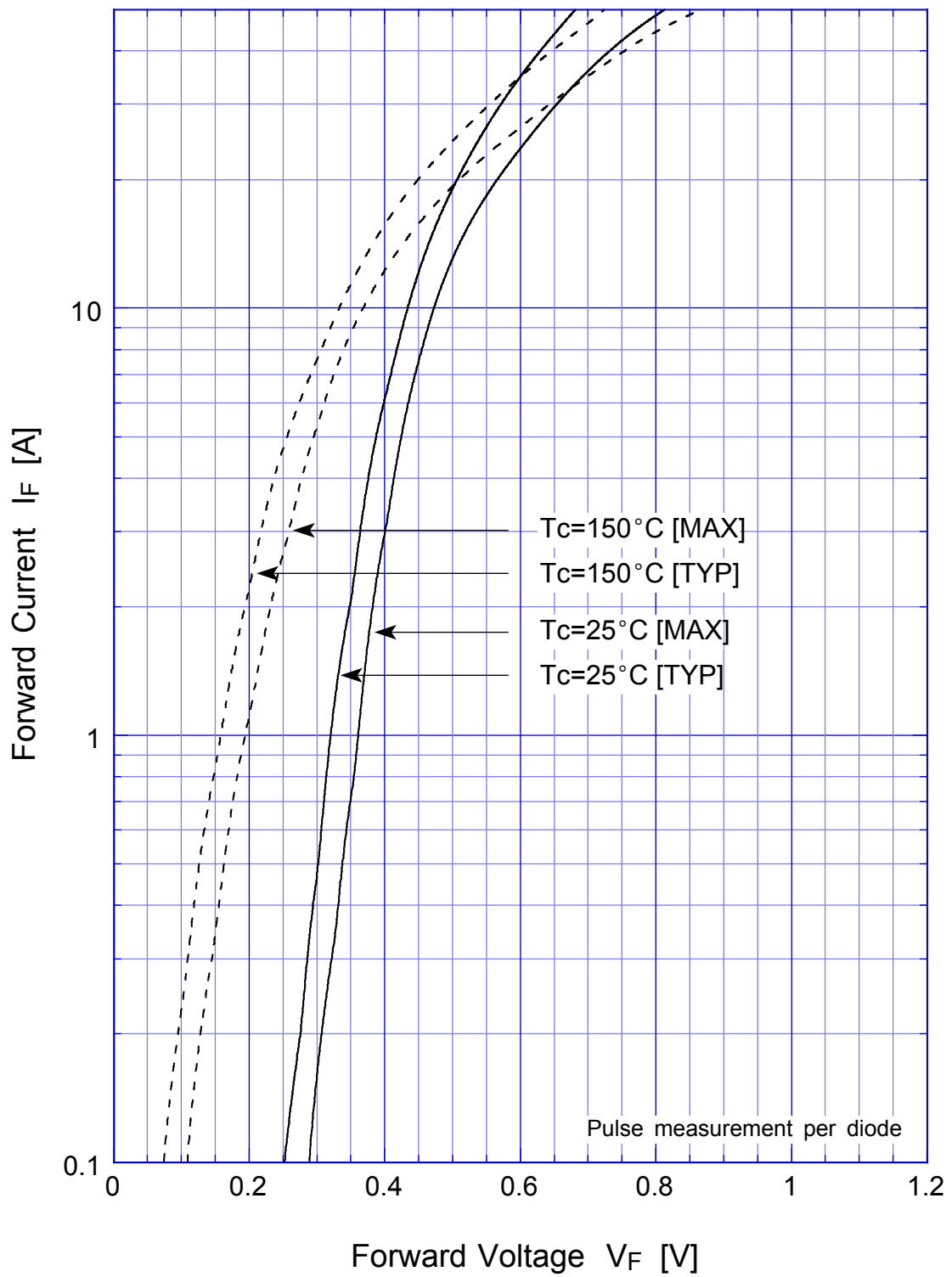
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55 ~ 150	
Operating Junction Temperature	T _j		150	
Maximum Reverse Voltage	V _{RM}		30	V
Repetitive Peak Surge Reverse Voltage	V _{RRSM}	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	I _O	50Hz sine wave, T _c =124	10	A
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25	250	A
Repetitive Peak Surge Reverse Power	P _{RRSM}	Pulse width 10 μs, T _j =25	660	W

Electrical Characteristics (If not specified T_c=25)

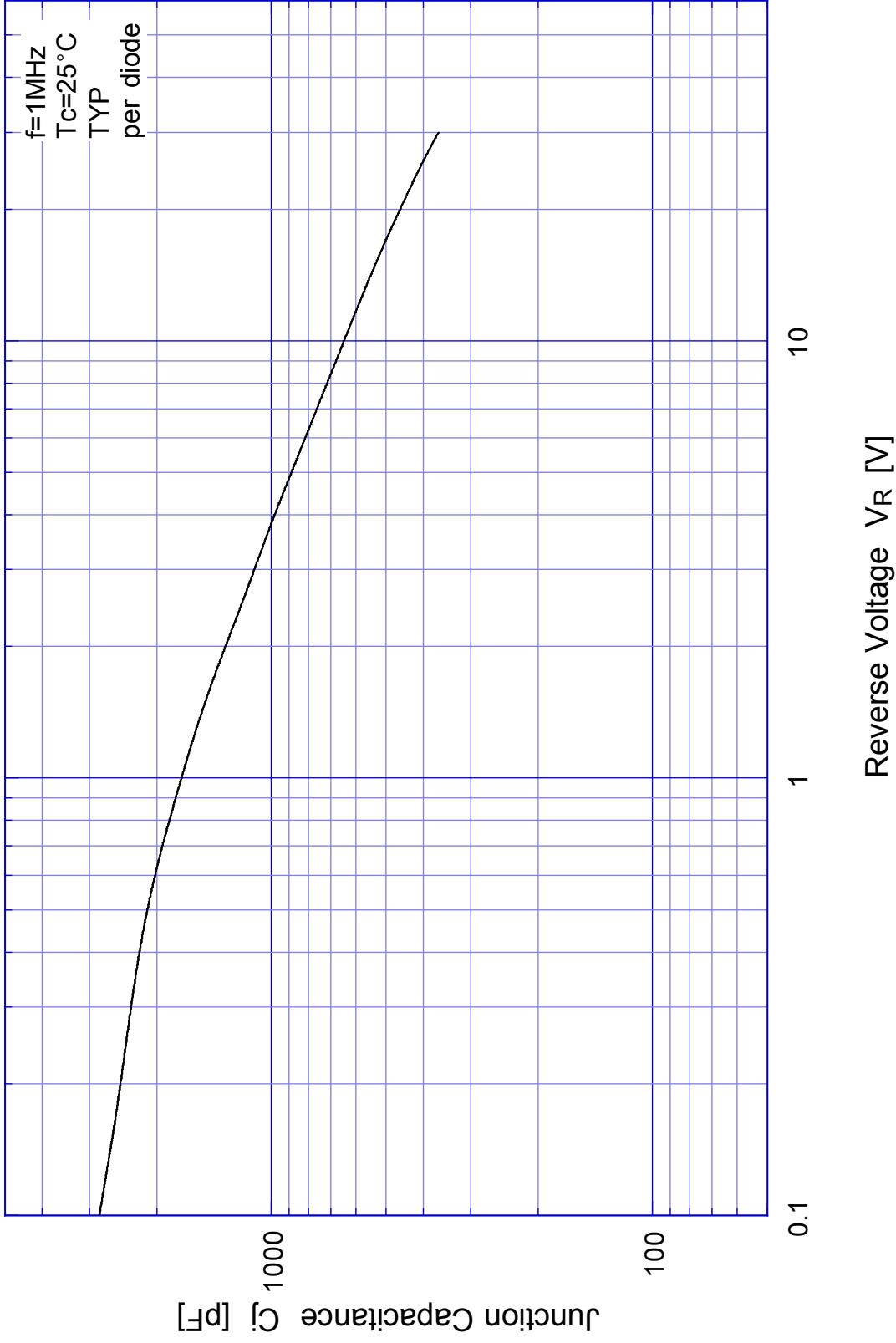
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F =8A, Pulse measurement	Max. 0.45	V
Reverse Current	I _R	V _R =V _{RM} , Pulse measurement	Max. 10	mA
Junction Capacitance	C _j	f=1MHz, V _R =10V	Typ. 640	pF
Thermal Resistance	θ _{JC}	junction to case	Max. 4.0	/W

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Forward Voltage

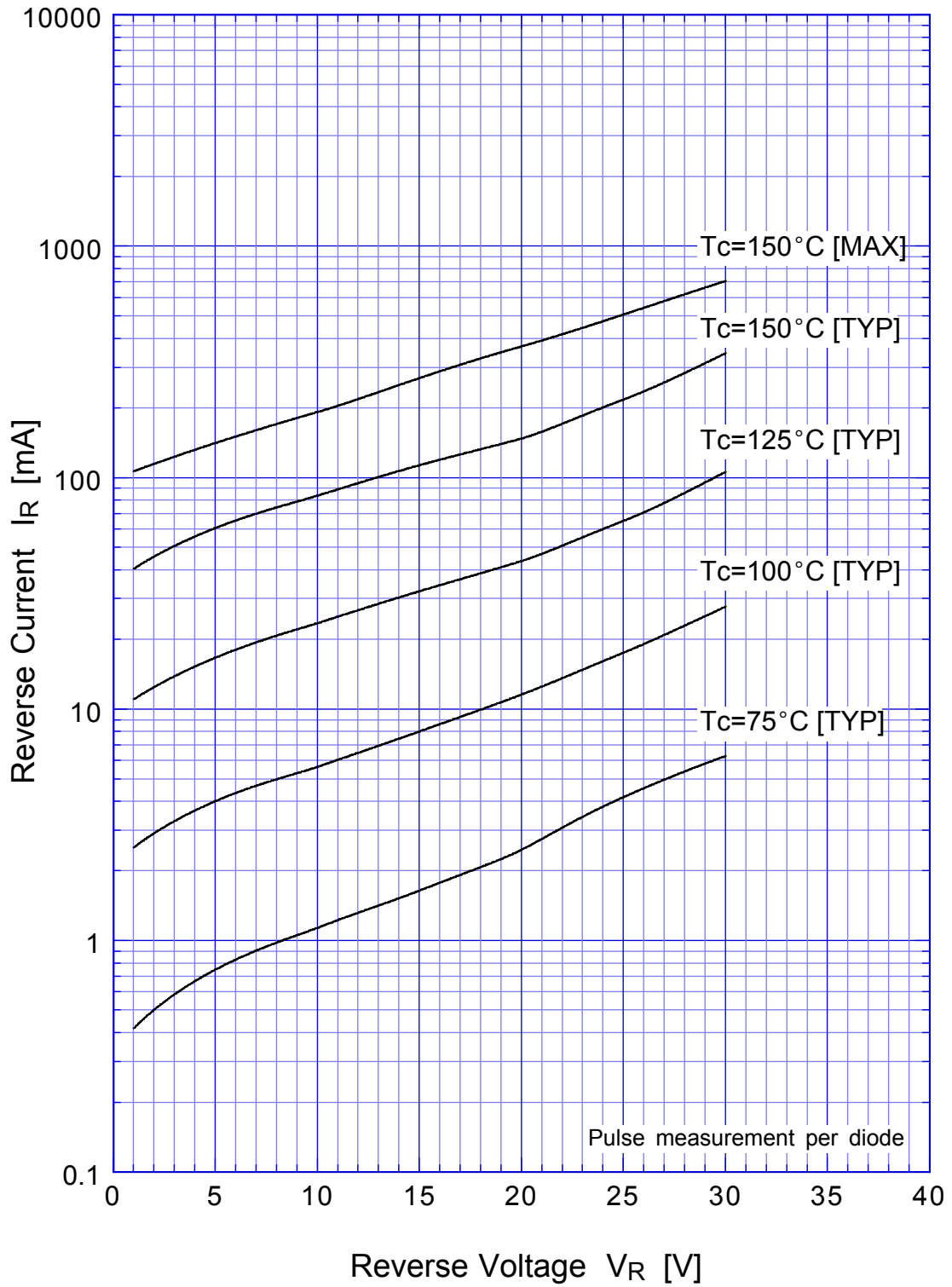


DE10S3L Junction Capacitance

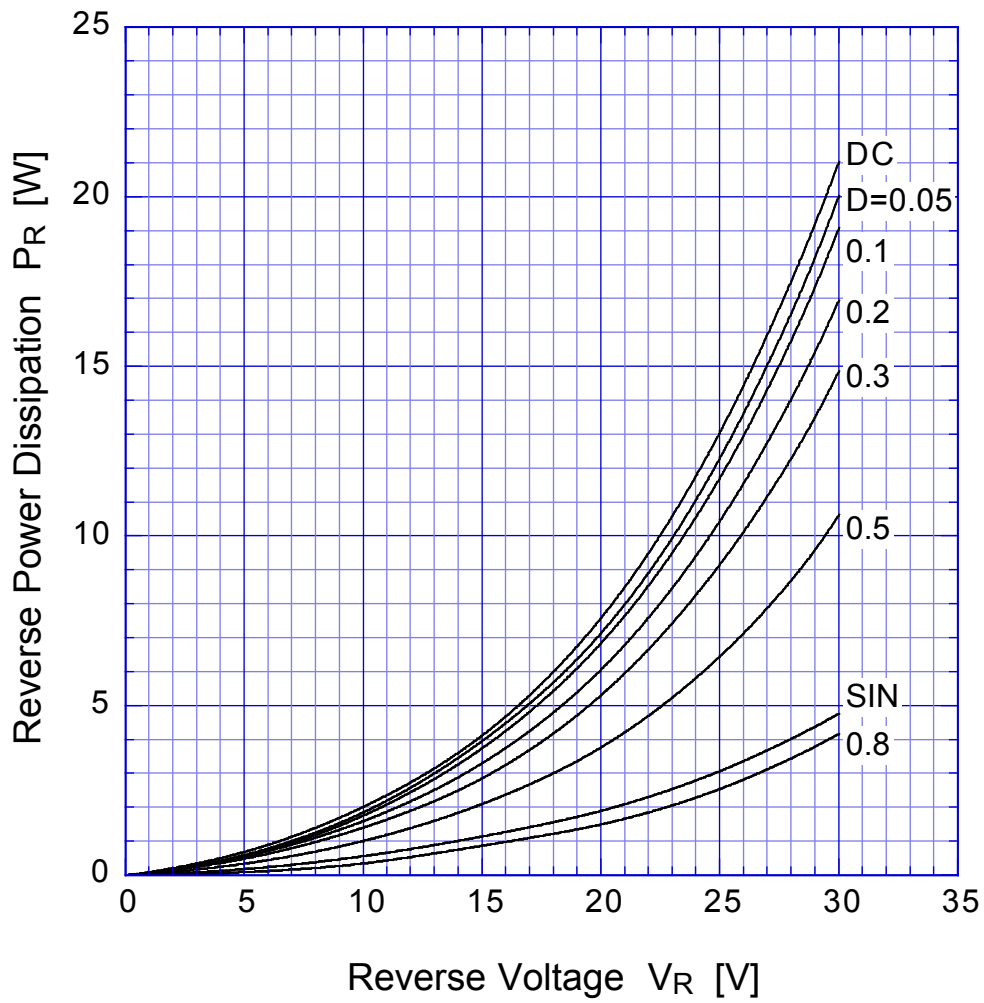


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Reverse Current



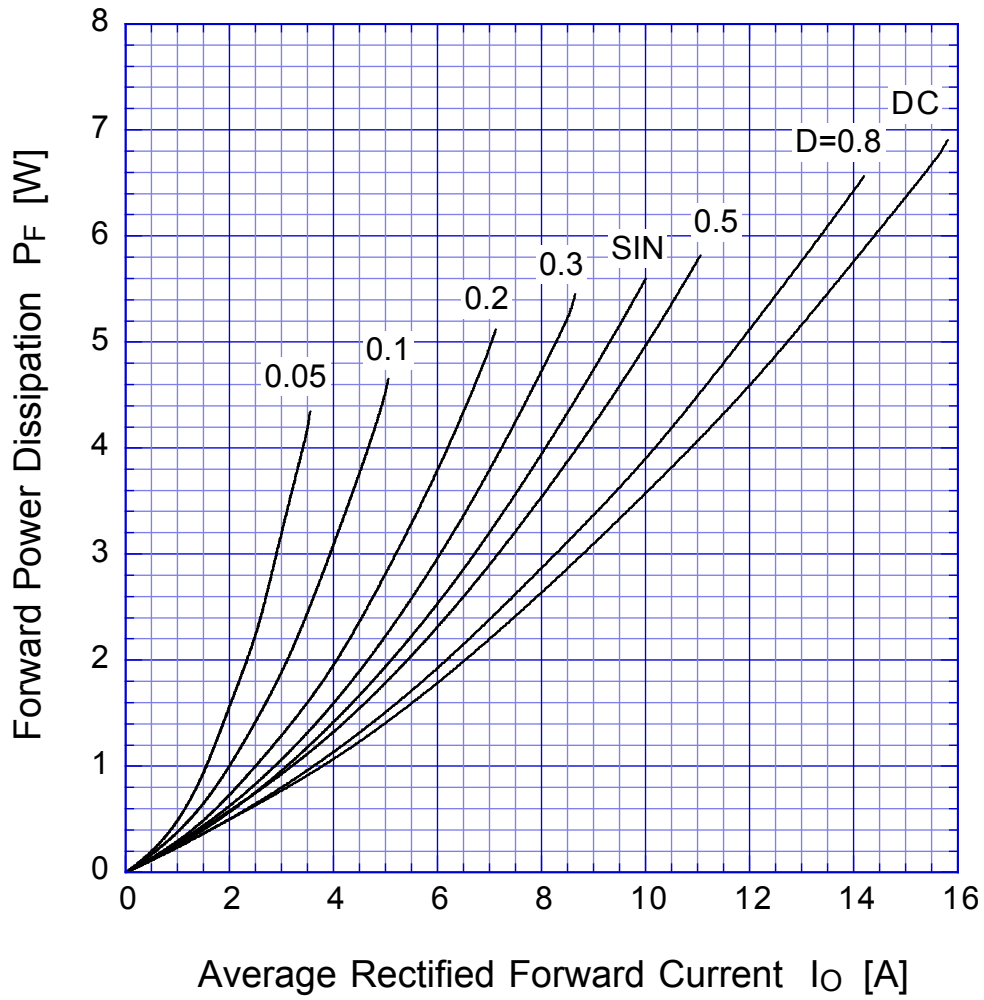
DE10S3L Reverse Power Dissipation



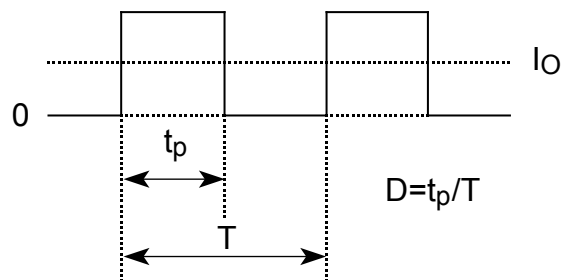
$T_j = 150^\circ\text{C}$



DE10S3L Forward Power Dissipation

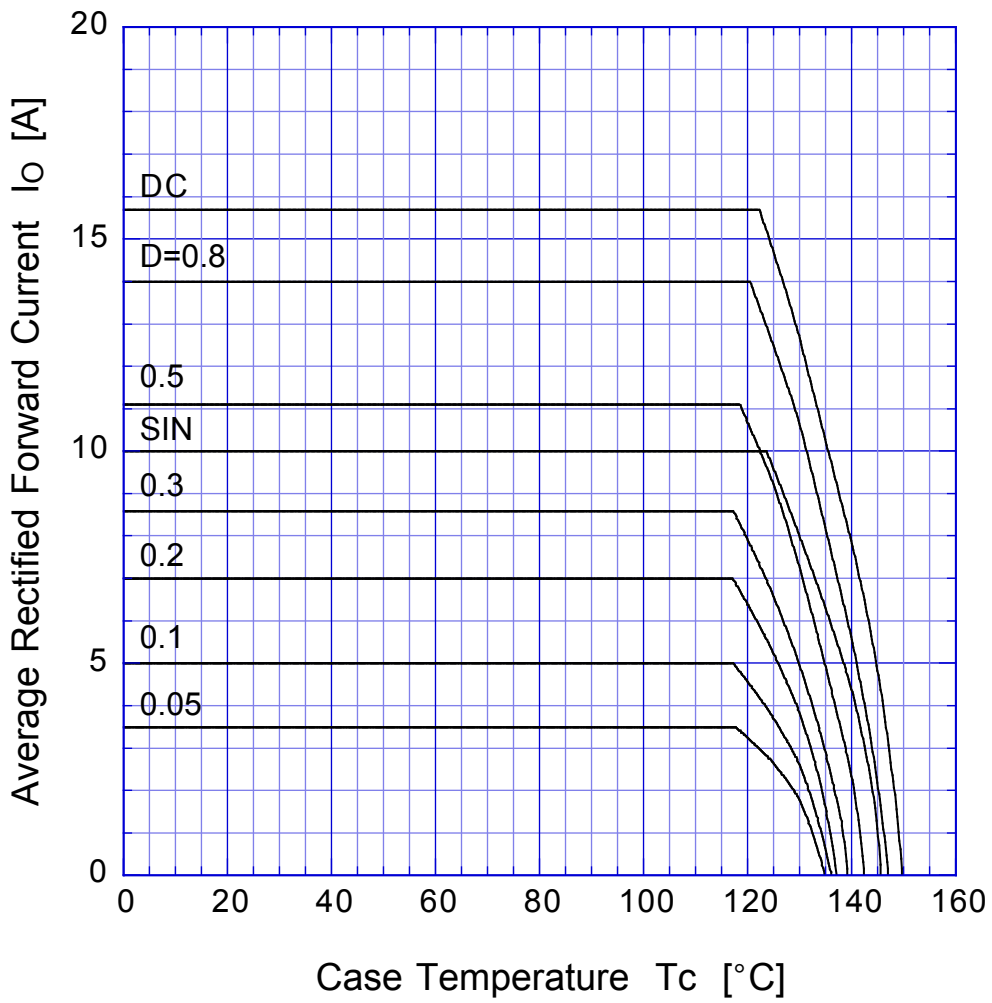


$T_j = 150^\circ\text{C}$



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Derating Curve

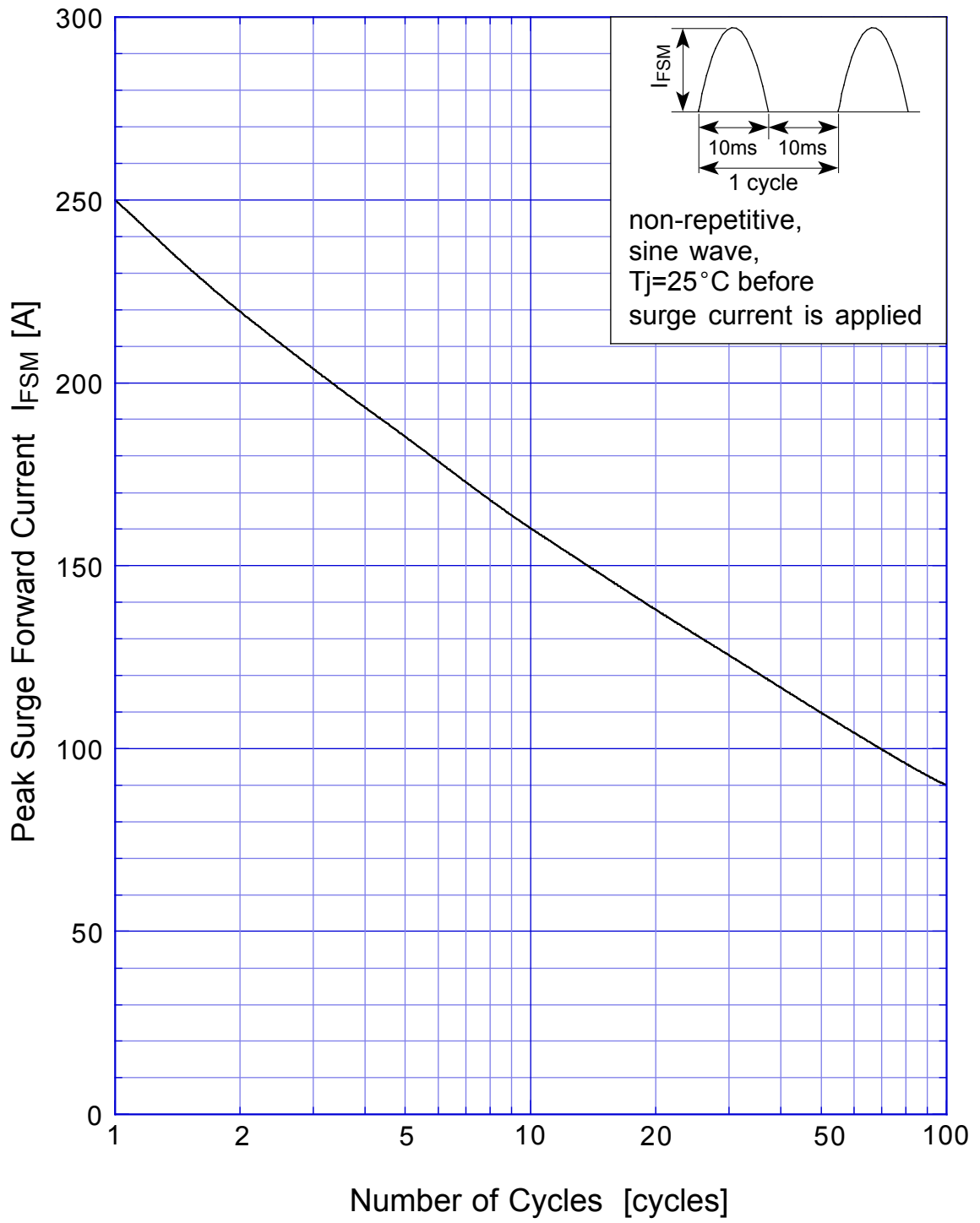


$V_R = 15V$

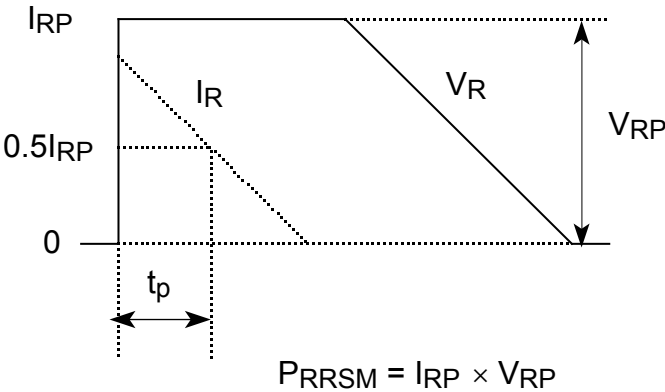
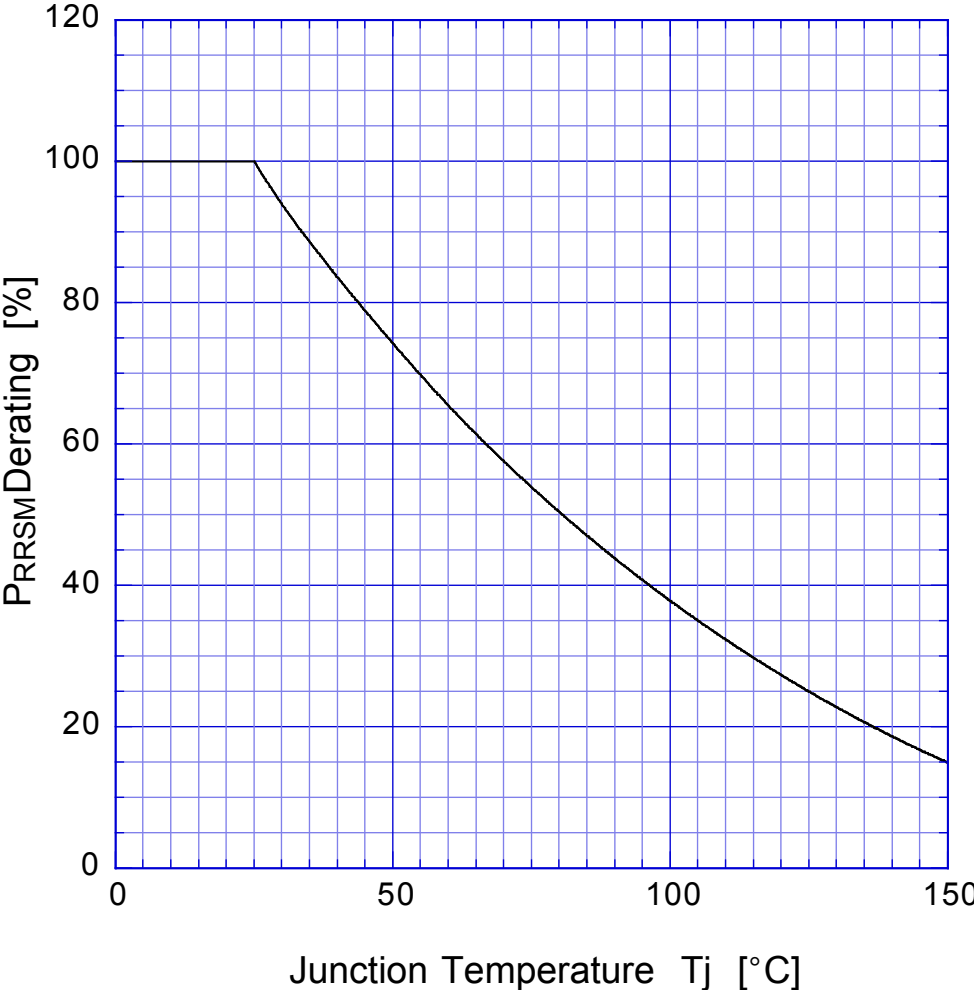


DE10S3L

Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

