

SHINDENGEN

Schottky Rectifiers (SBD)

Single

DE10S3L

30V 10A

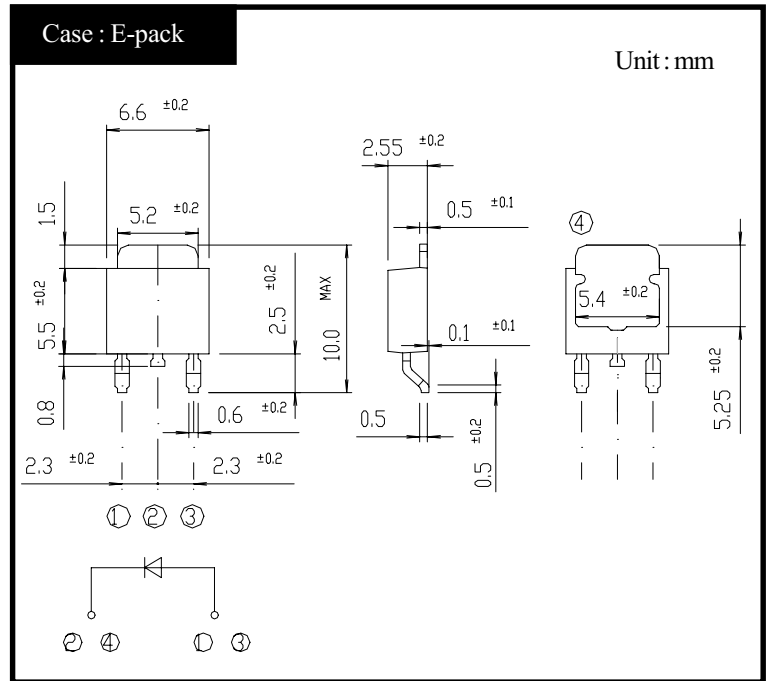
FEATURES

- SMT
- $T_j 150^{\circ}\text{C}$
- Low $V_F=0.45\text{V}$
- 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 $T_c=25^{\circ}\text{C}$)

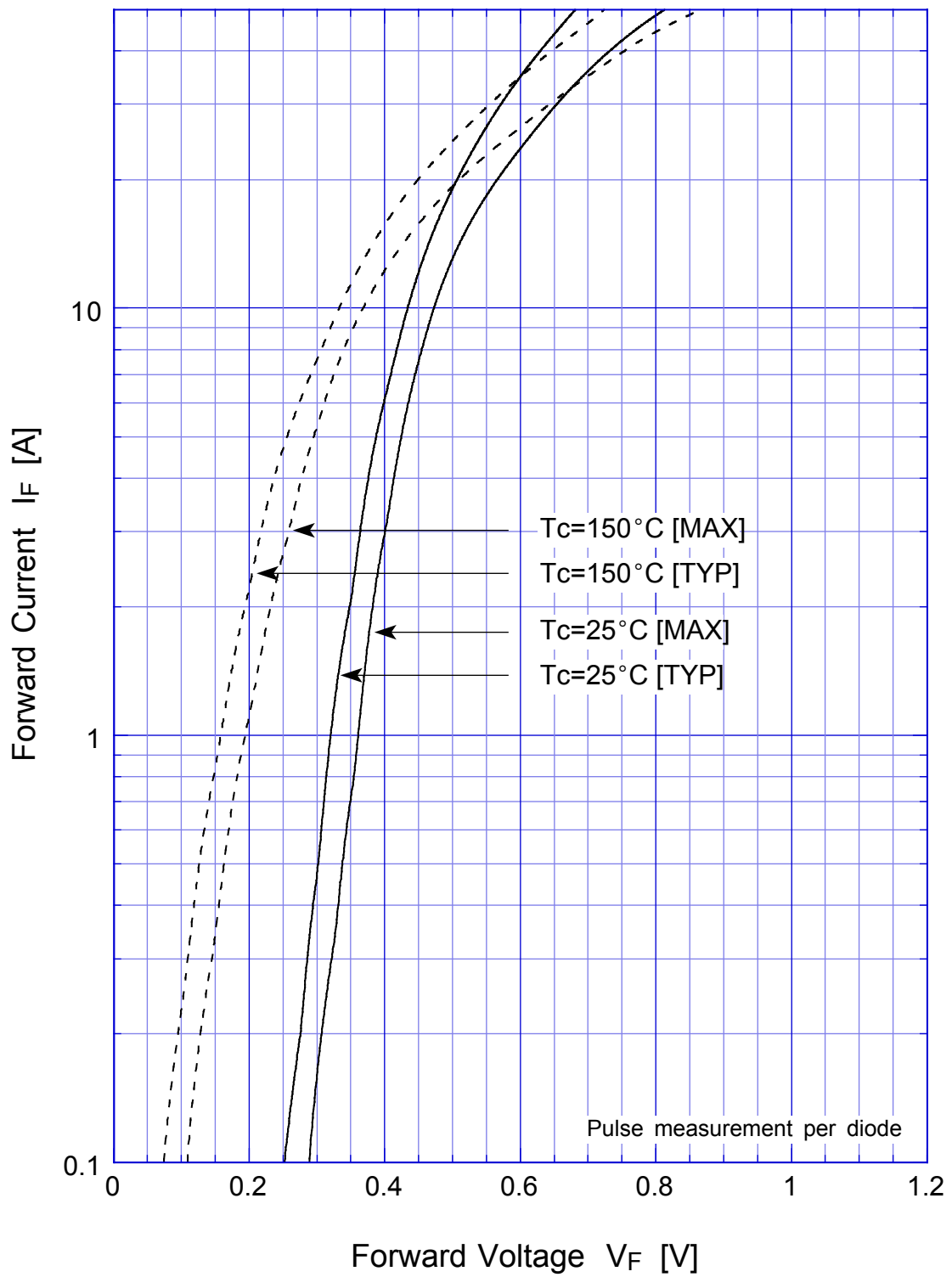
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-55~150	$^{\circ}\text{C}$
Operating Junction Temperature	T_j		150	$^{\circ}\text{C}$
Maximum Reverse Voltage	V_{RM}		30	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	I_O	50Hz sine wave, $T_c=124^{\circ}\text{C}$	10	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}\text{C}$	250	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, $T_j=25^{\circ}\text{C}$	660	W

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

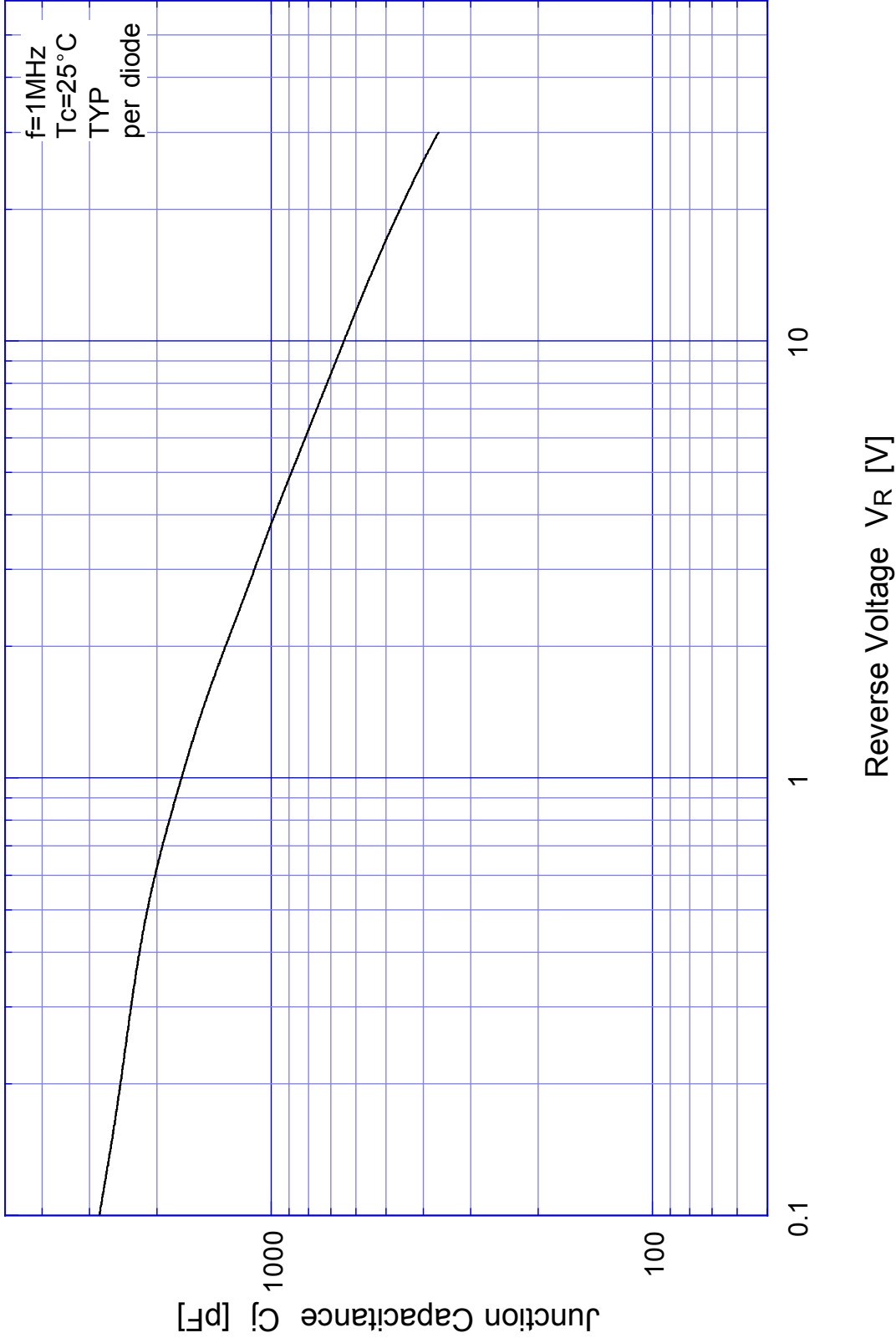
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=8\text{A}$, Pulse measurement	Max. 0.45	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement	Max. 10	mA
Junction Capacitance	C_j	$f=1\text{MHz}$, $V_R=10\text{V}$	Typ. 640	pF
Thermal Resistance	θ_{jc}	junction to case	Max. 4.0	$^{\circ}\text{C}/\text{W}$

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Forward Voltage

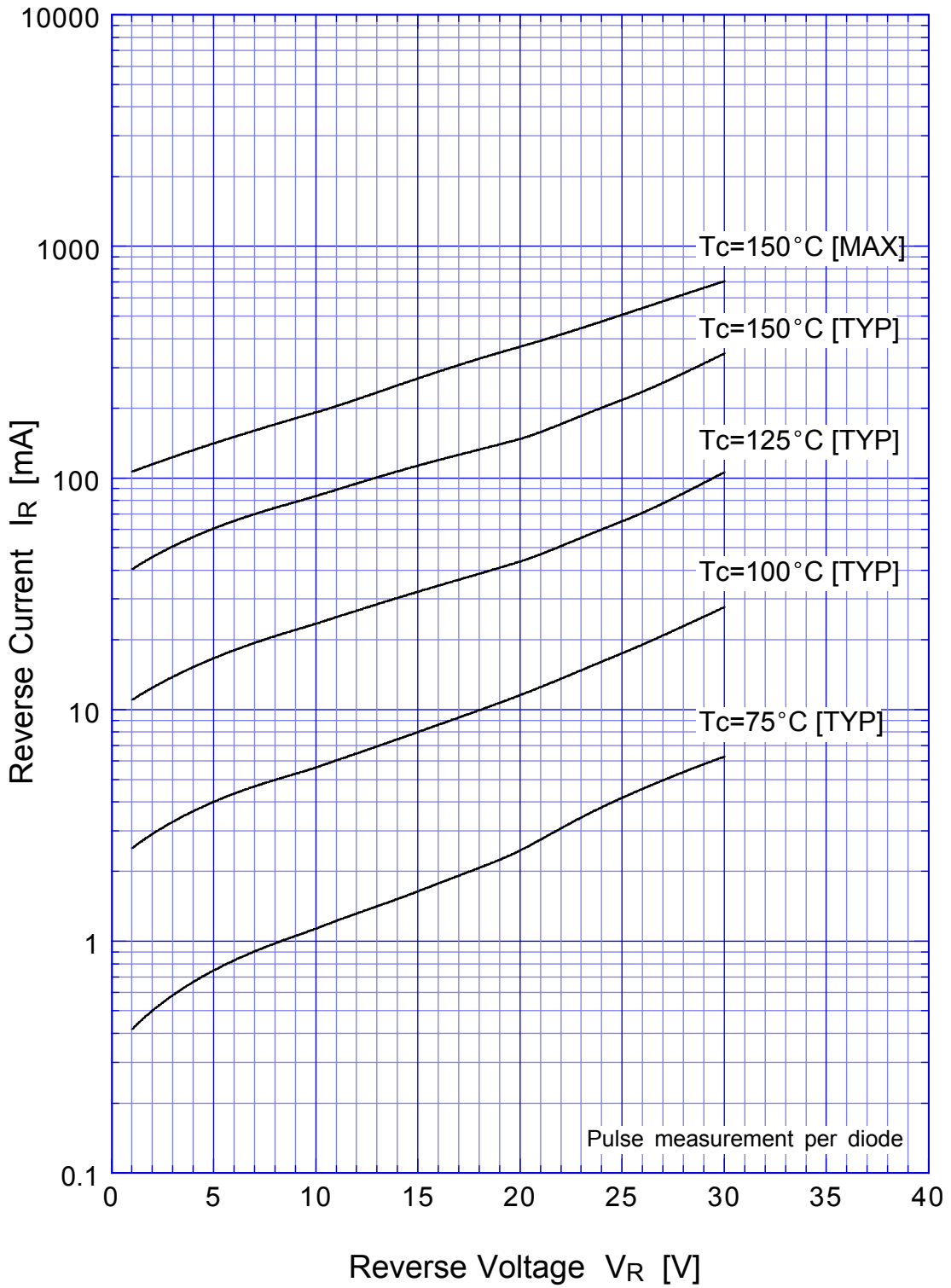


DE10S3L Junction Capacitance

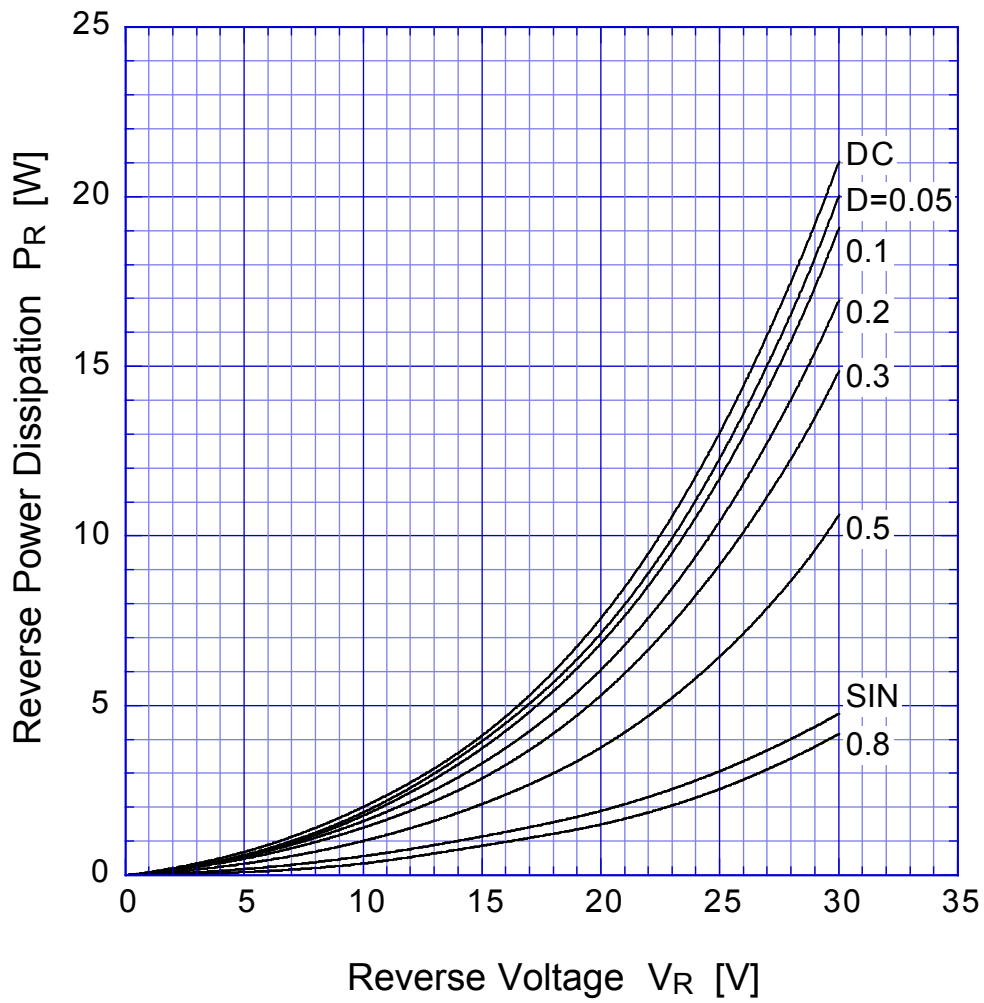


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Reverse Current



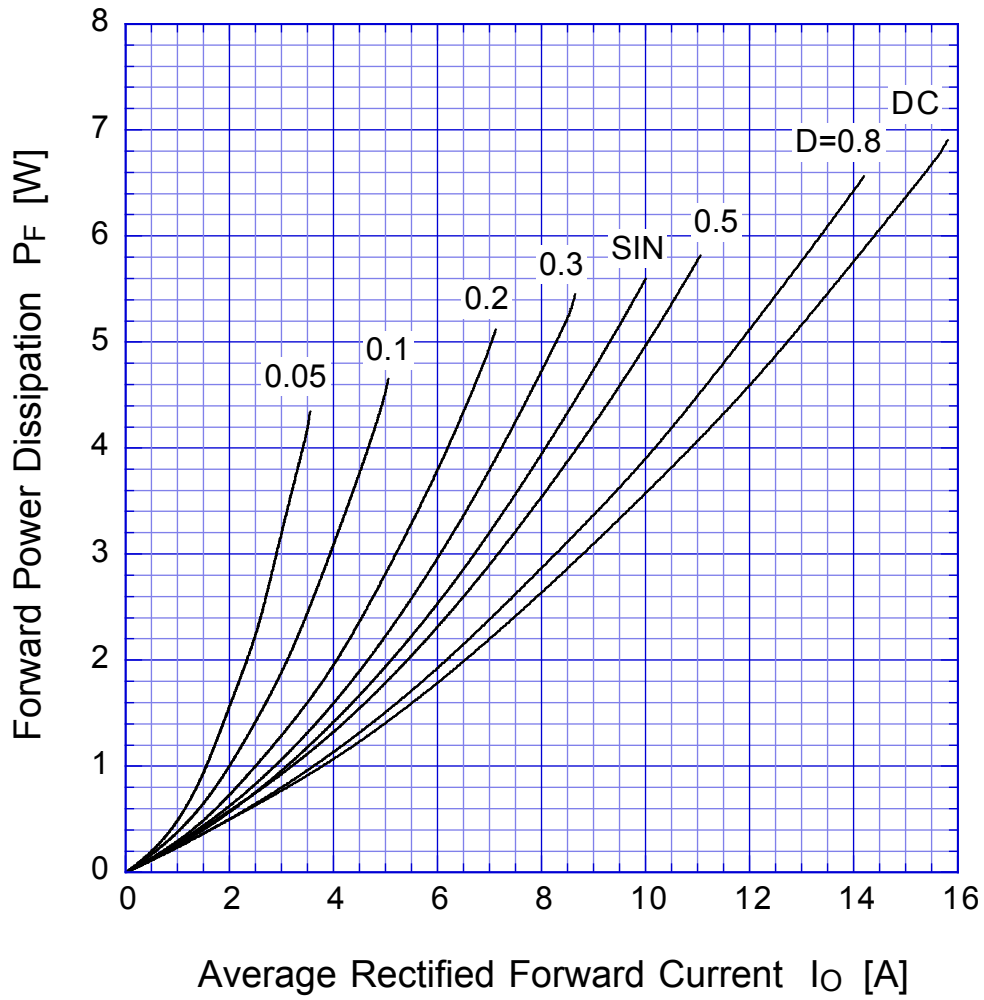
DE10S3L Reverse Power Dissipation



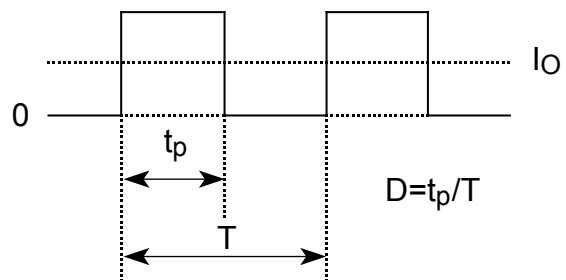
$T_j = 150^\circ\text{C}$



DE10S3L Forward Power Dissipation

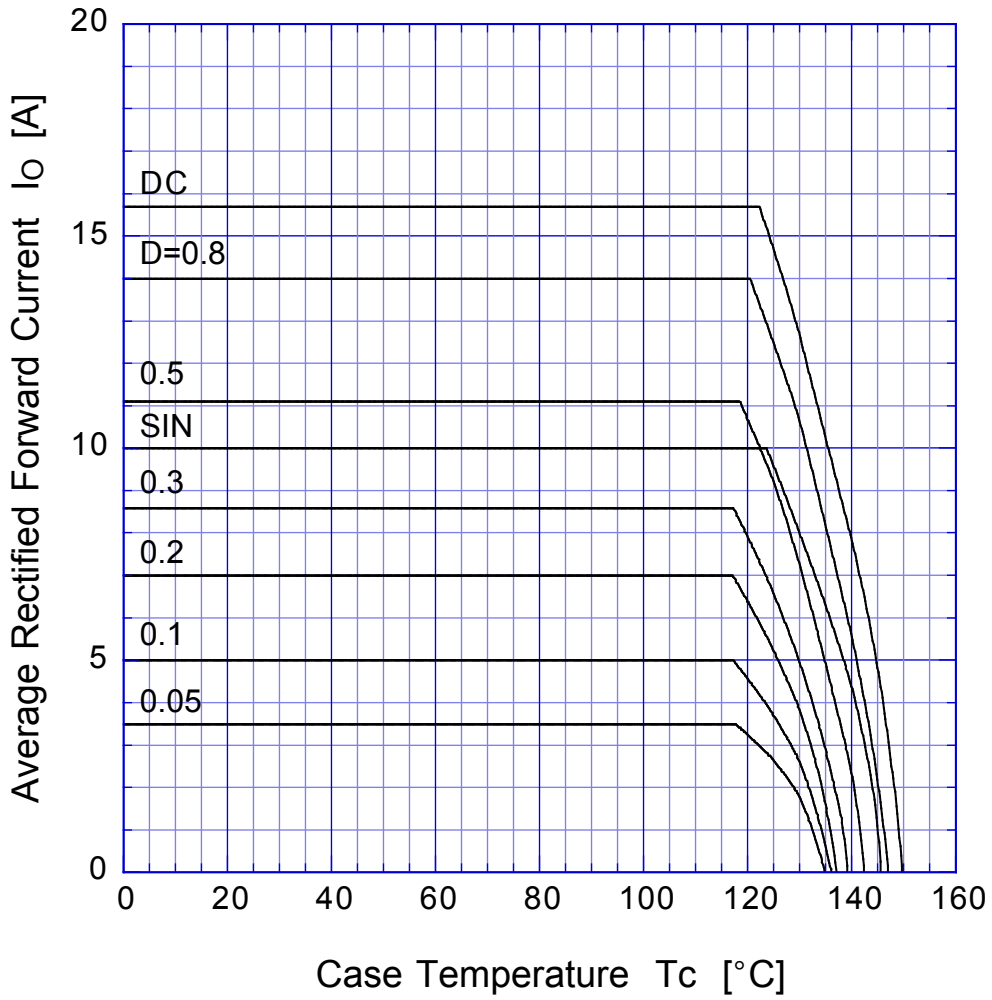


$T_j = 150^\circ\text{C}$



DE10S3L

Derating Curve

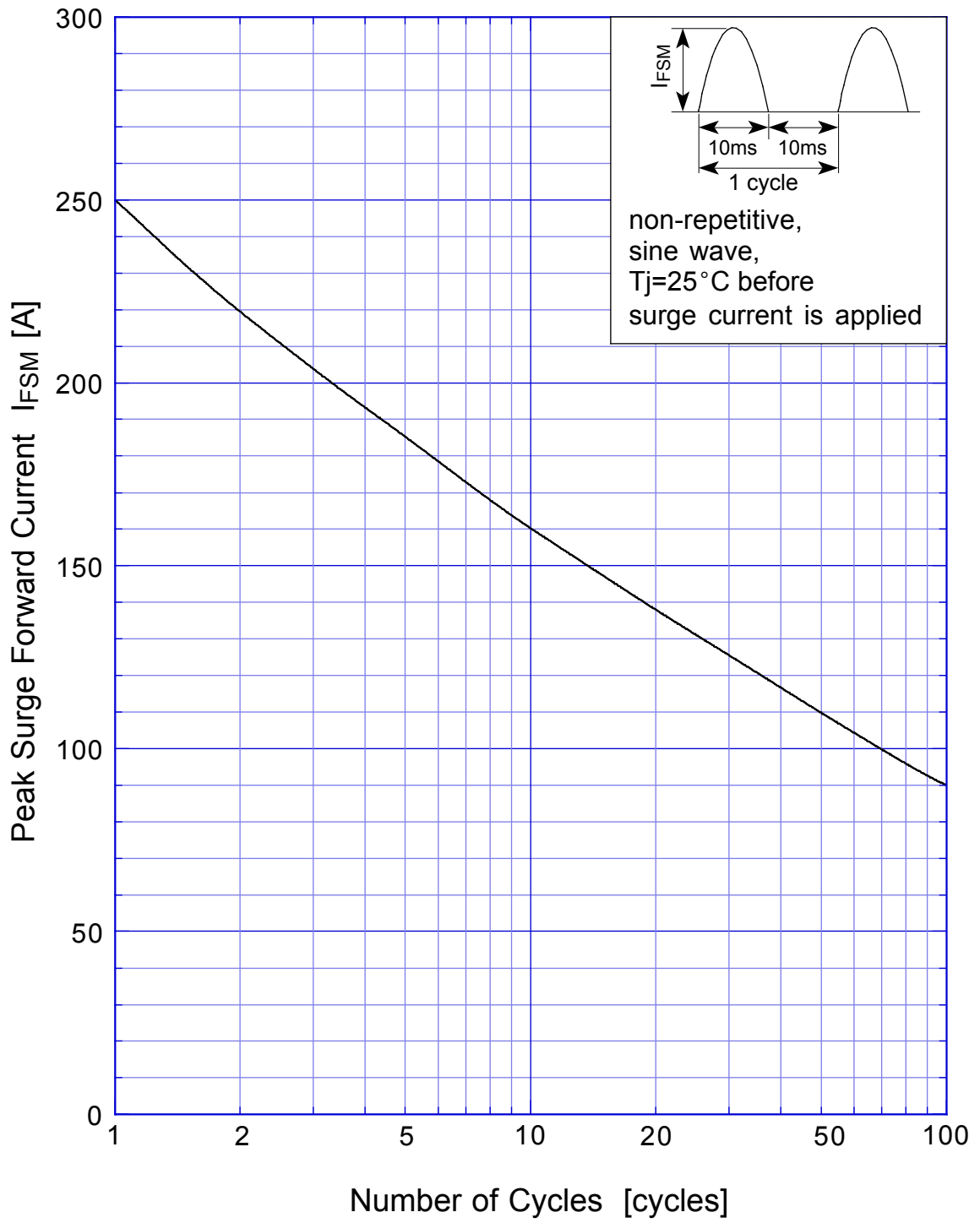


$V_R = 15V$



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Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

