

SHINDENGEN

Schottky Rectifiers (SBD)

Dual

DE5SC3ML

30V 5A

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

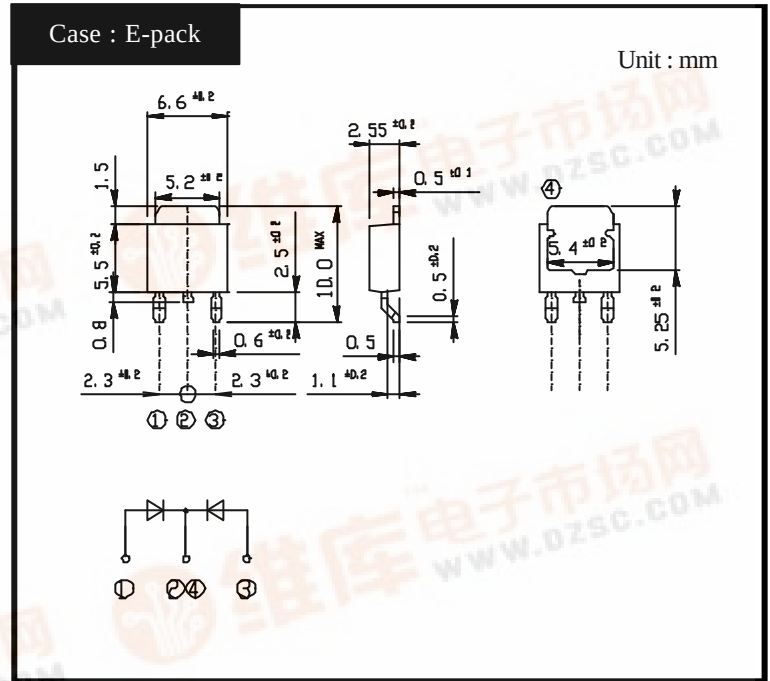
APPLICATION

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

OUTLINE DIMENSIONS

Case : E-pack

Unit : mm



RATINGS

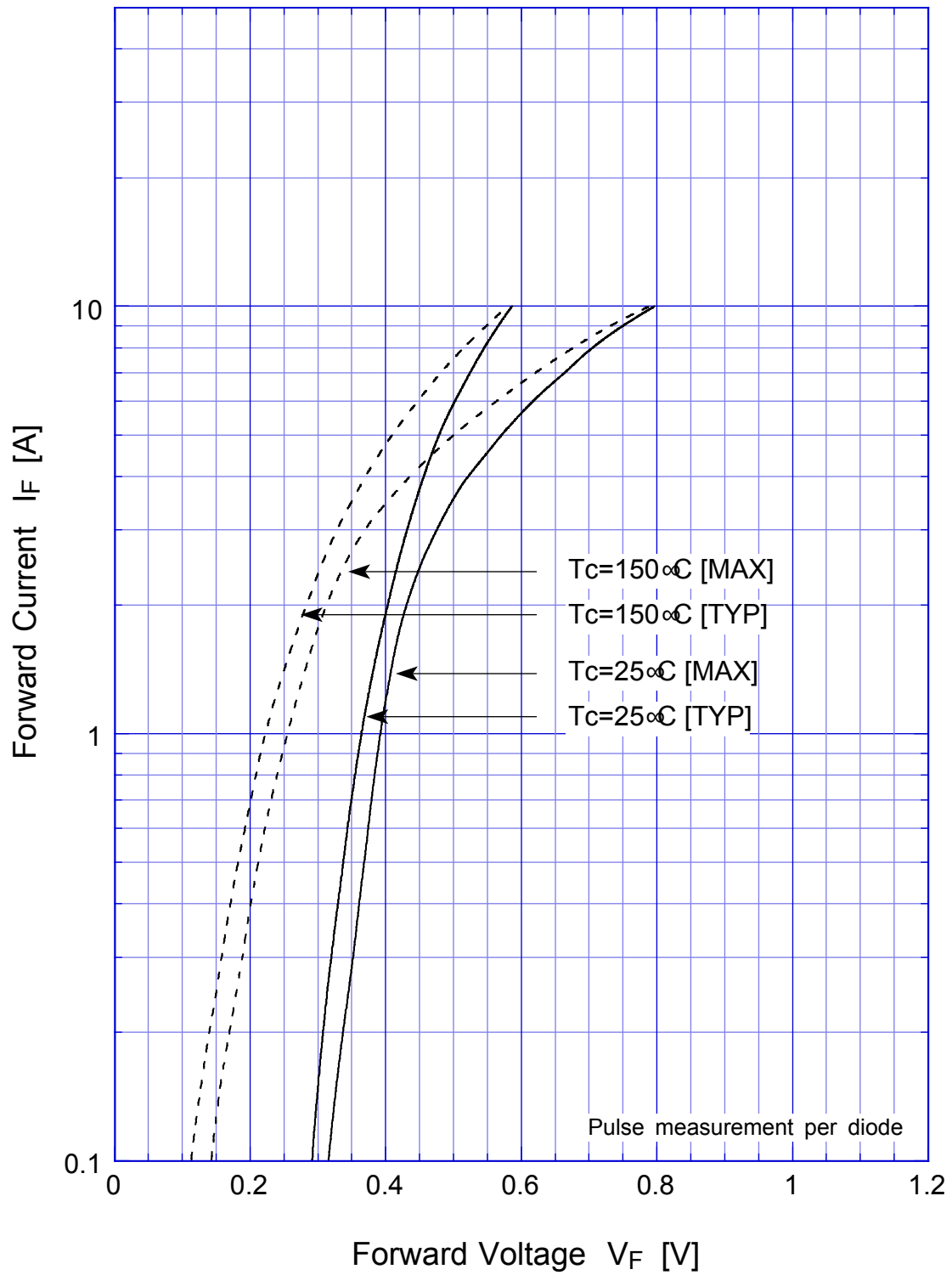
- Absolute Maximum Ratings (If not specified $T_c=25^{\circ}\text{C}$)

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, R-load, Rating for each diode $I_o/2$, $T_c=110^{\circ}\text{C}$	5	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}\text{C}$	90	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μs , Rating of per diode, $T_j=25^{\circ}\text{C}$	330	W

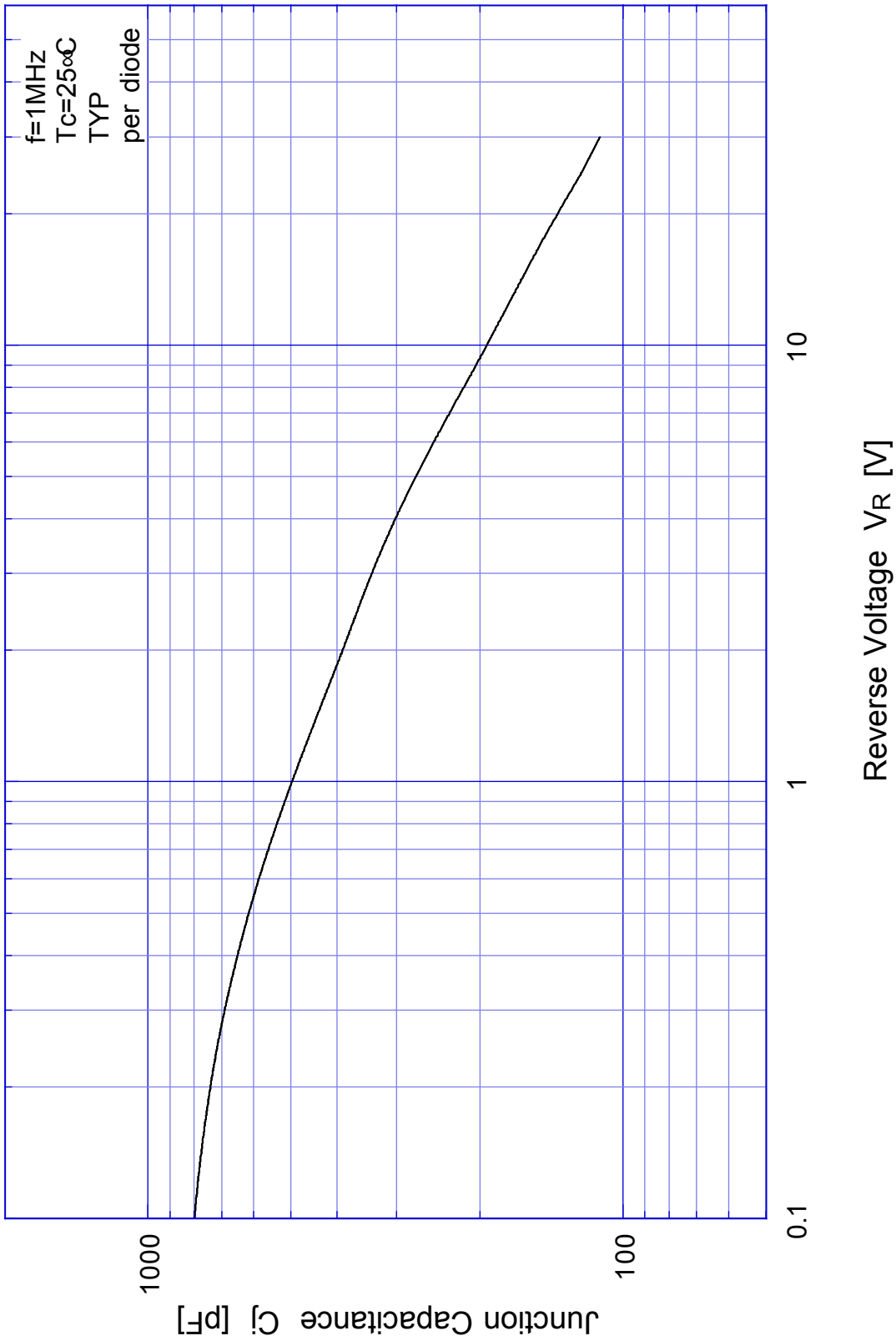
- Electrical Characteristics (If not specified $T_c=25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=2.5\text{A}$, 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.3.5	mA
Junction Capacitance	C_j	$f=1\text{MHz}$, $V_R=10\text{V}$, Rating of per diode	Typ.190	pF
Thermal Resistance	θ_{jc}	junction to case	Max.12	$^{\circ}\text{C/W}$

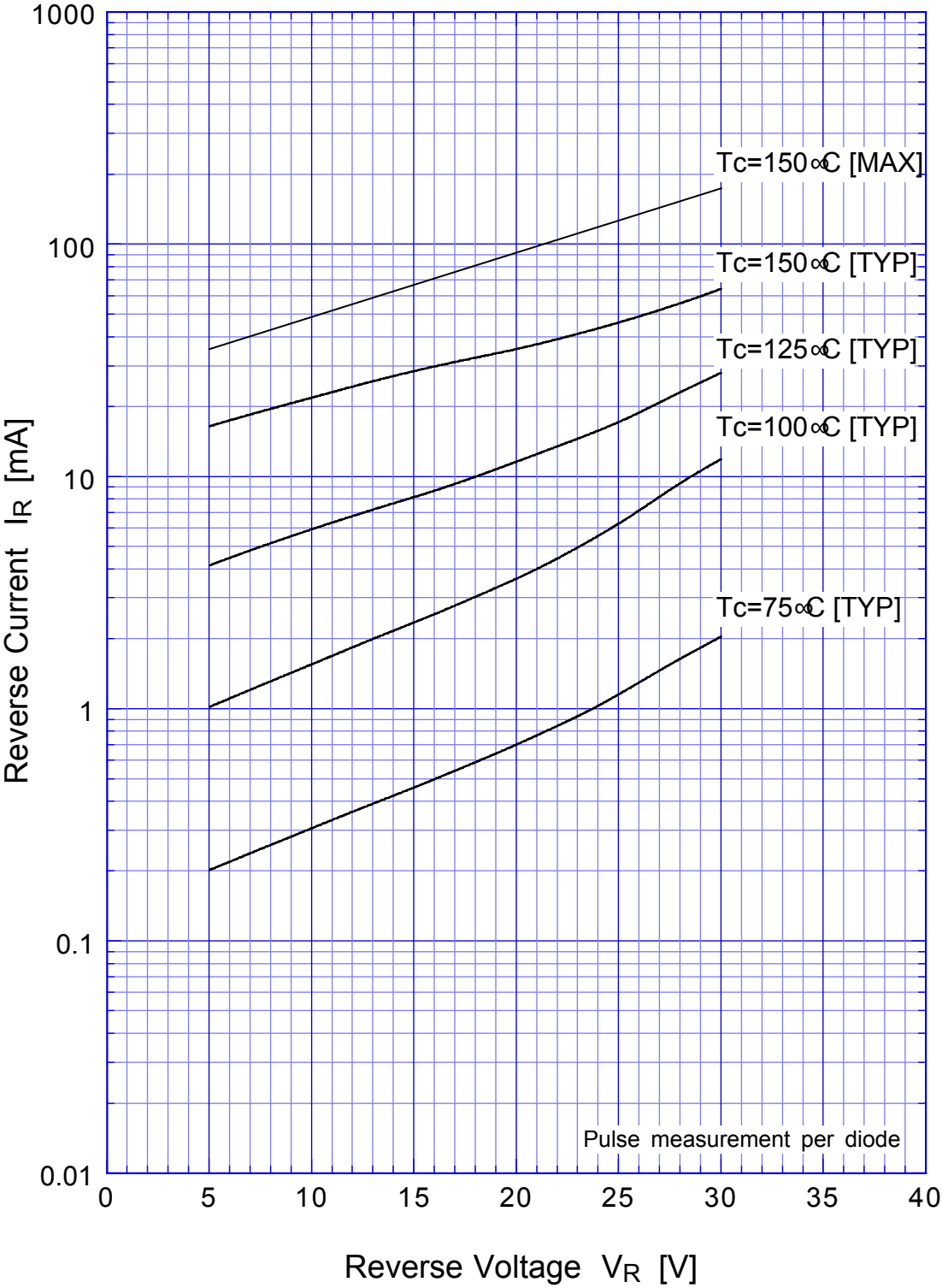
DE5SC3ML Forward Voltage



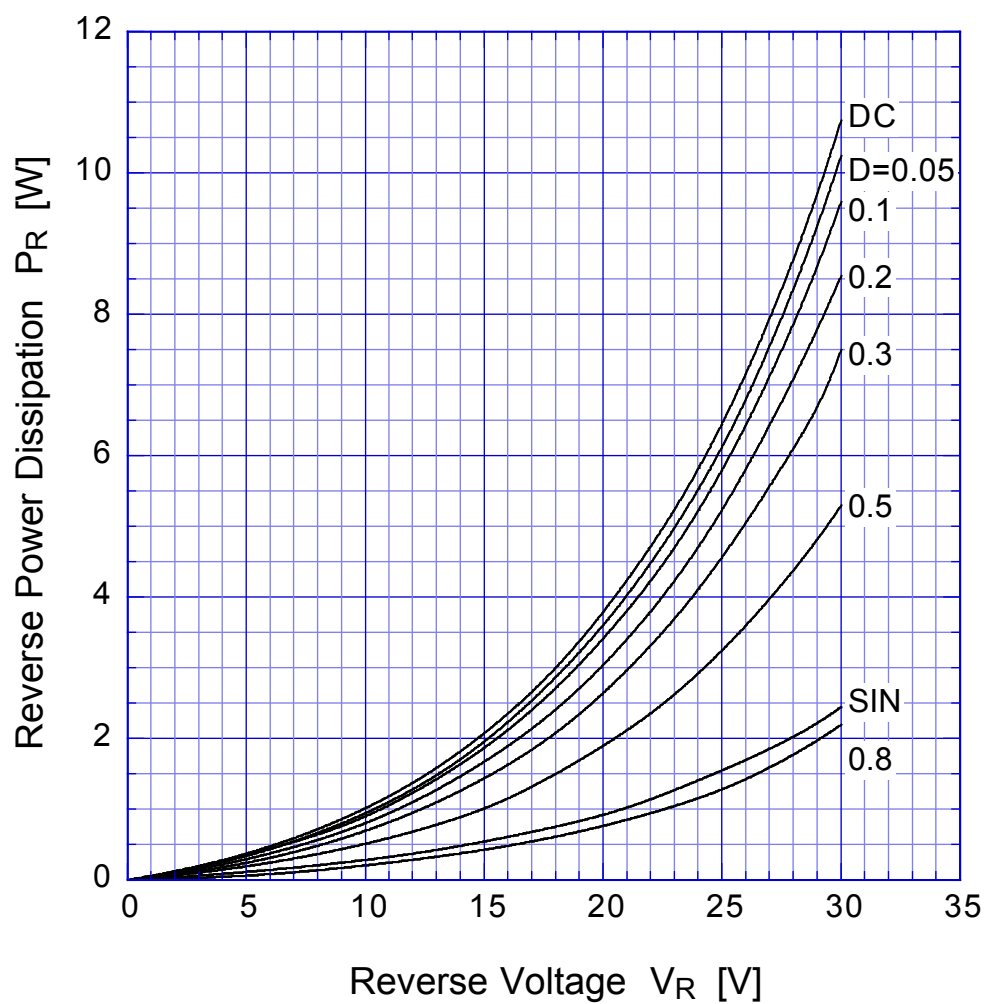
DE5SC3ML Junction Capacitance



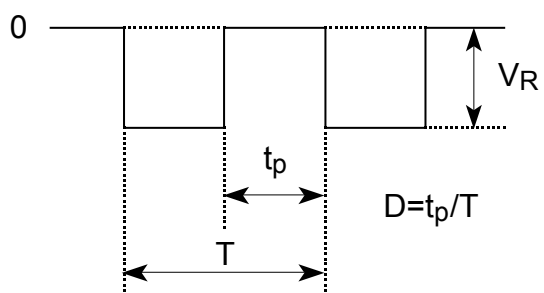
DE5SC3ML Reverse Current



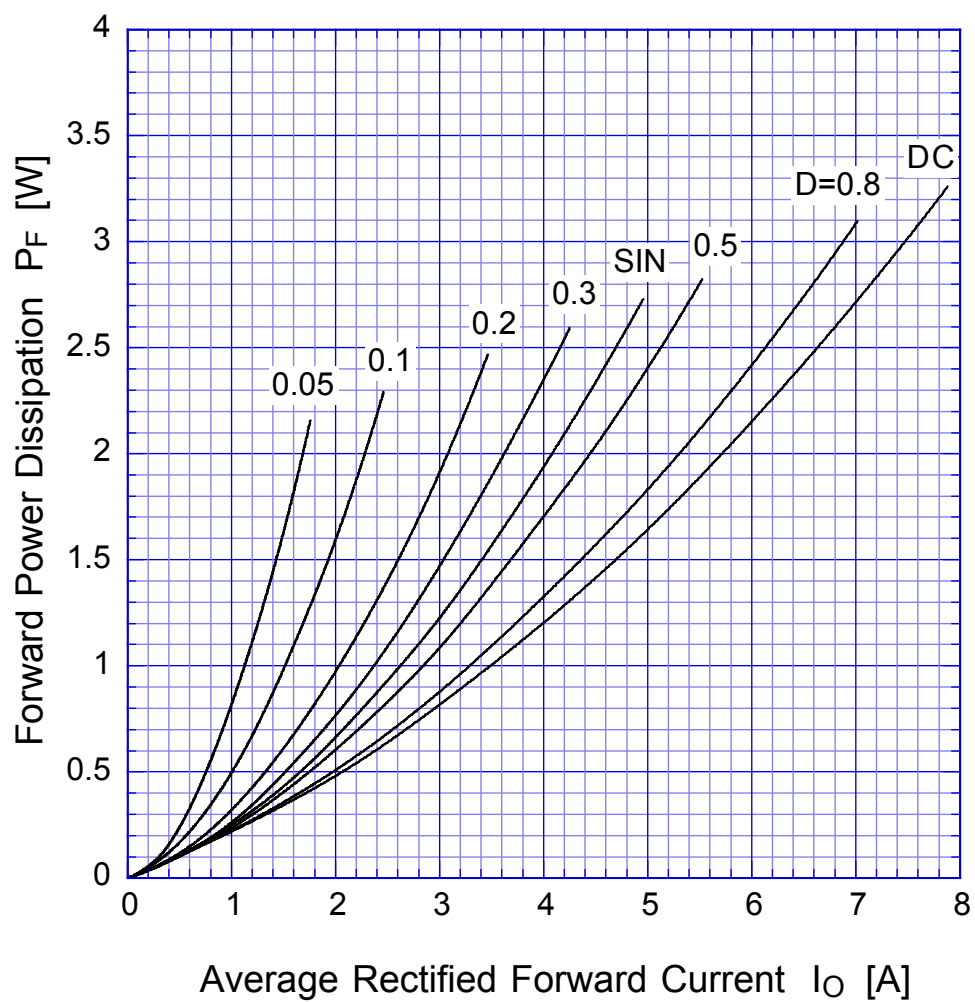
DE5SC3ML Reverse Power Dissipation



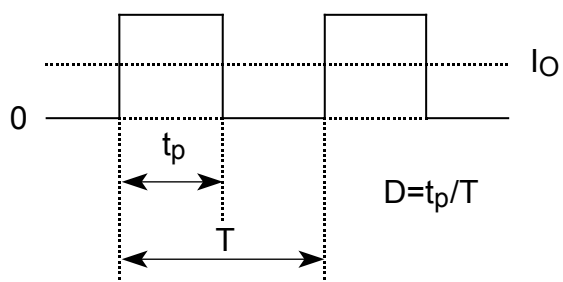
$T_j = 150^\circ\text{C}$



DE5SC3ML Forward Power Dissipation

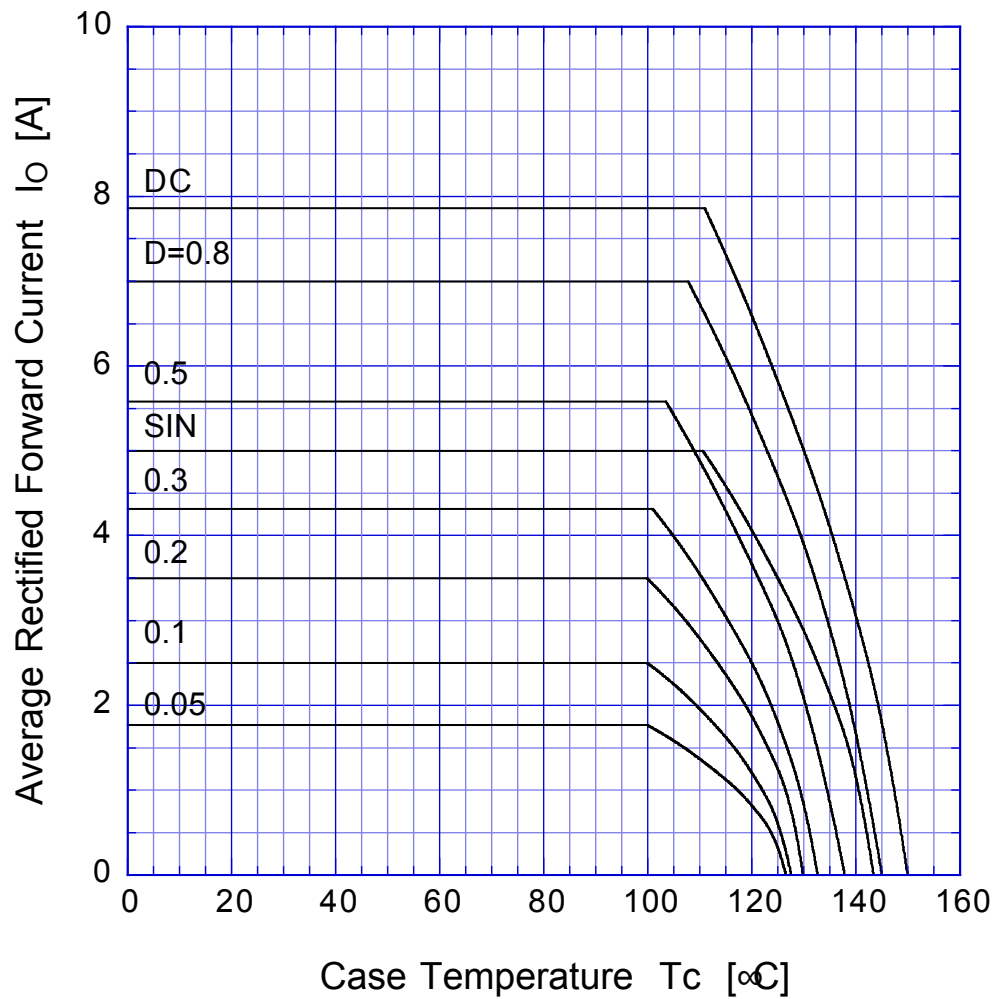


$T_j = 150^\circ\text{C}$

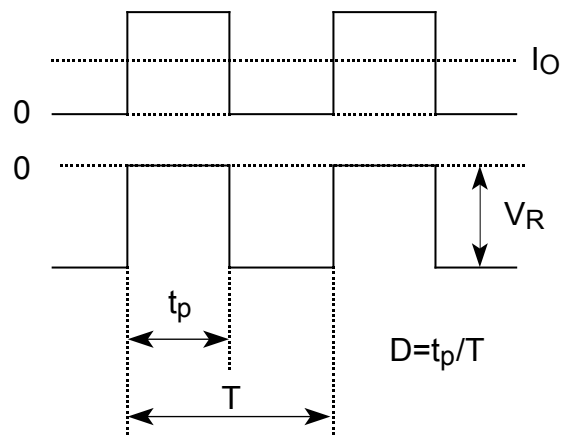


DE5SC3ML

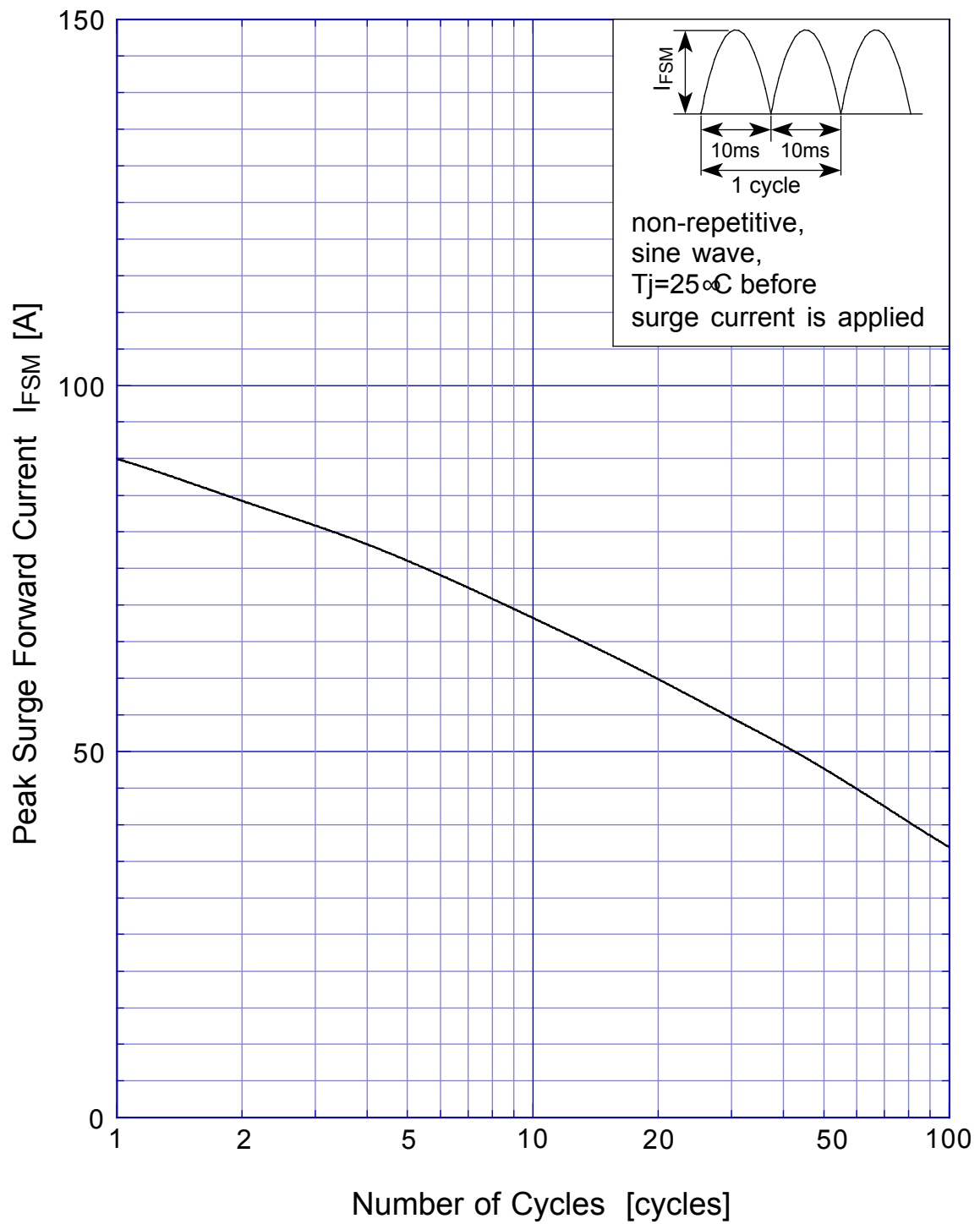
Derating Curve



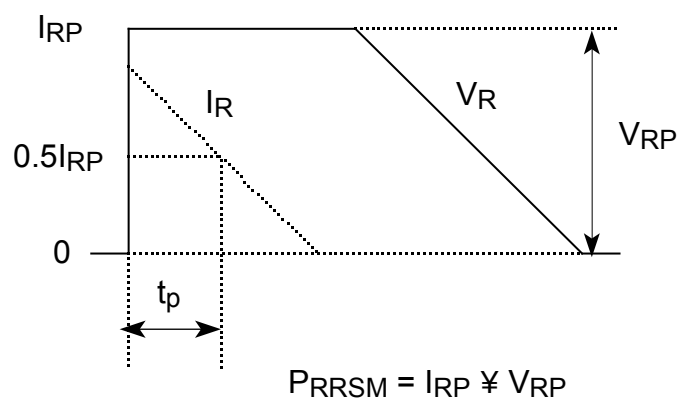
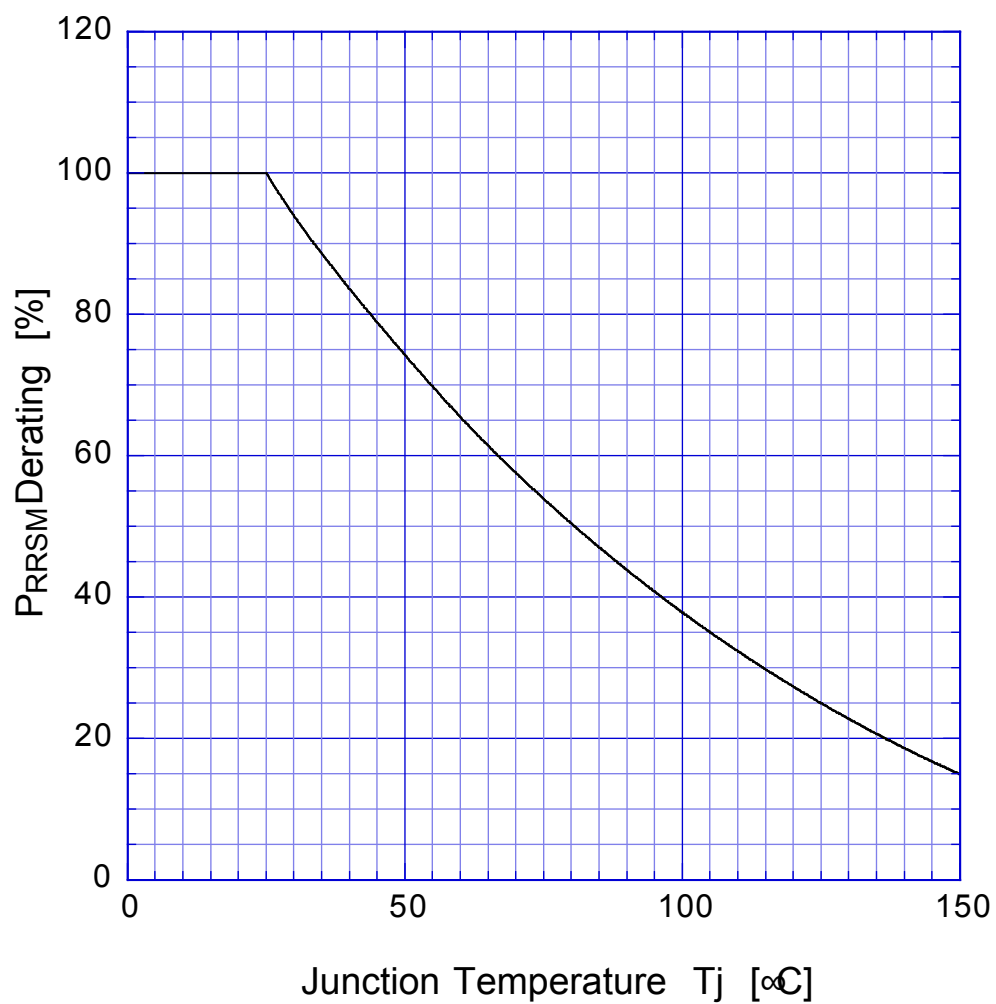
$V_R = 15V$



DE5SC3ML Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

