

### DE5SC3ML

**30V 5A**

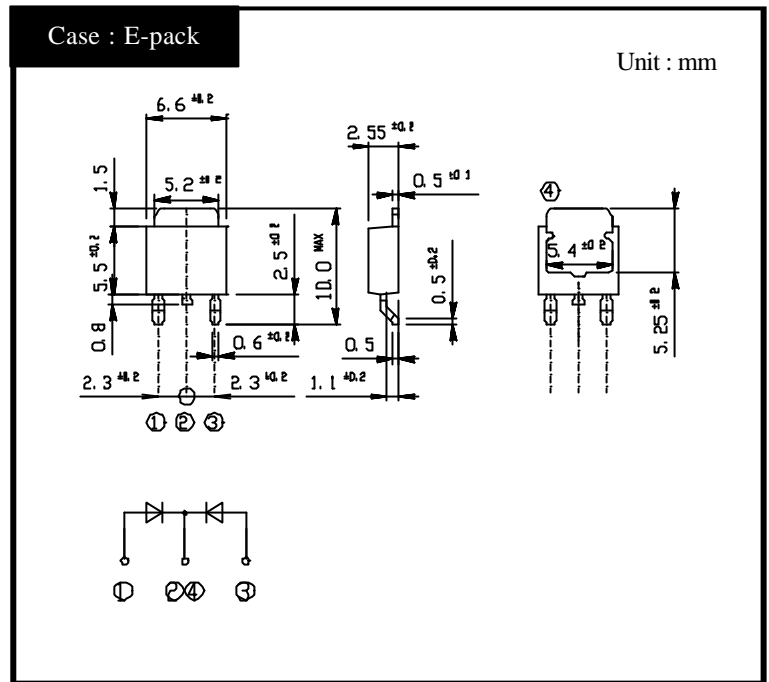
#### FEATURES

- 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

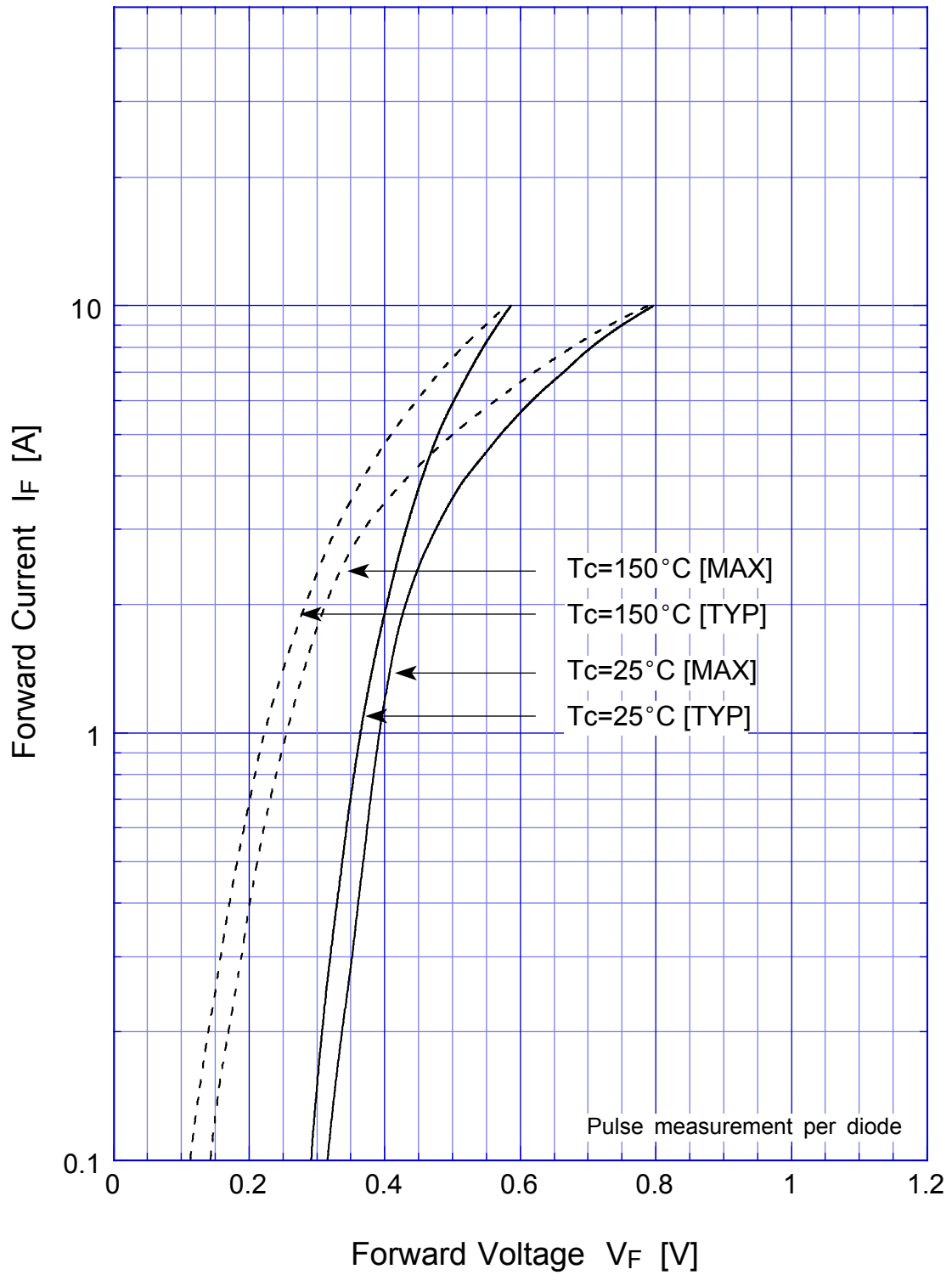
Absolute Maximum Ratings (If not specified  $T_c=25$ )

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

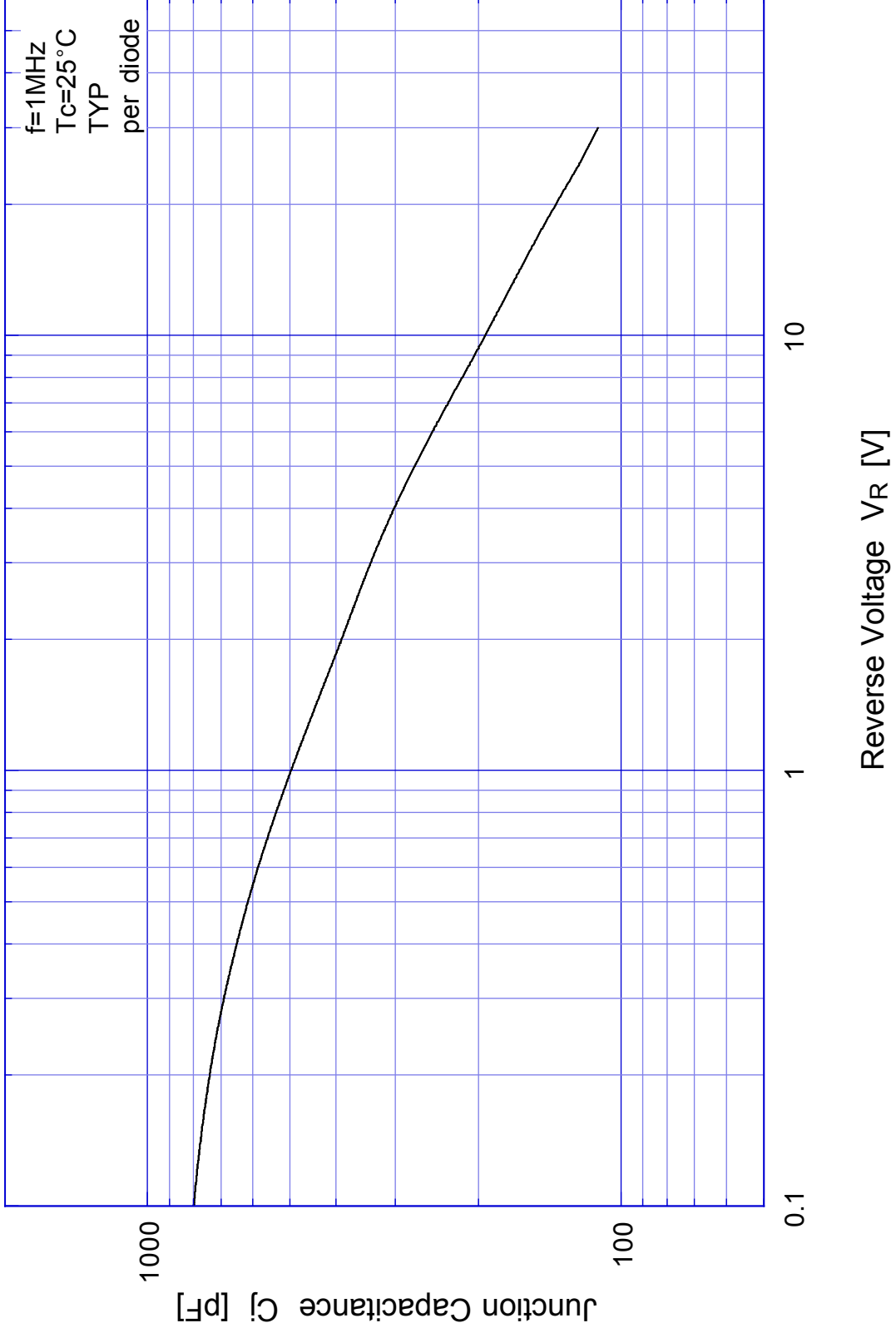
Electrical Characteristics (If not specified  $T_c=25$ )

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

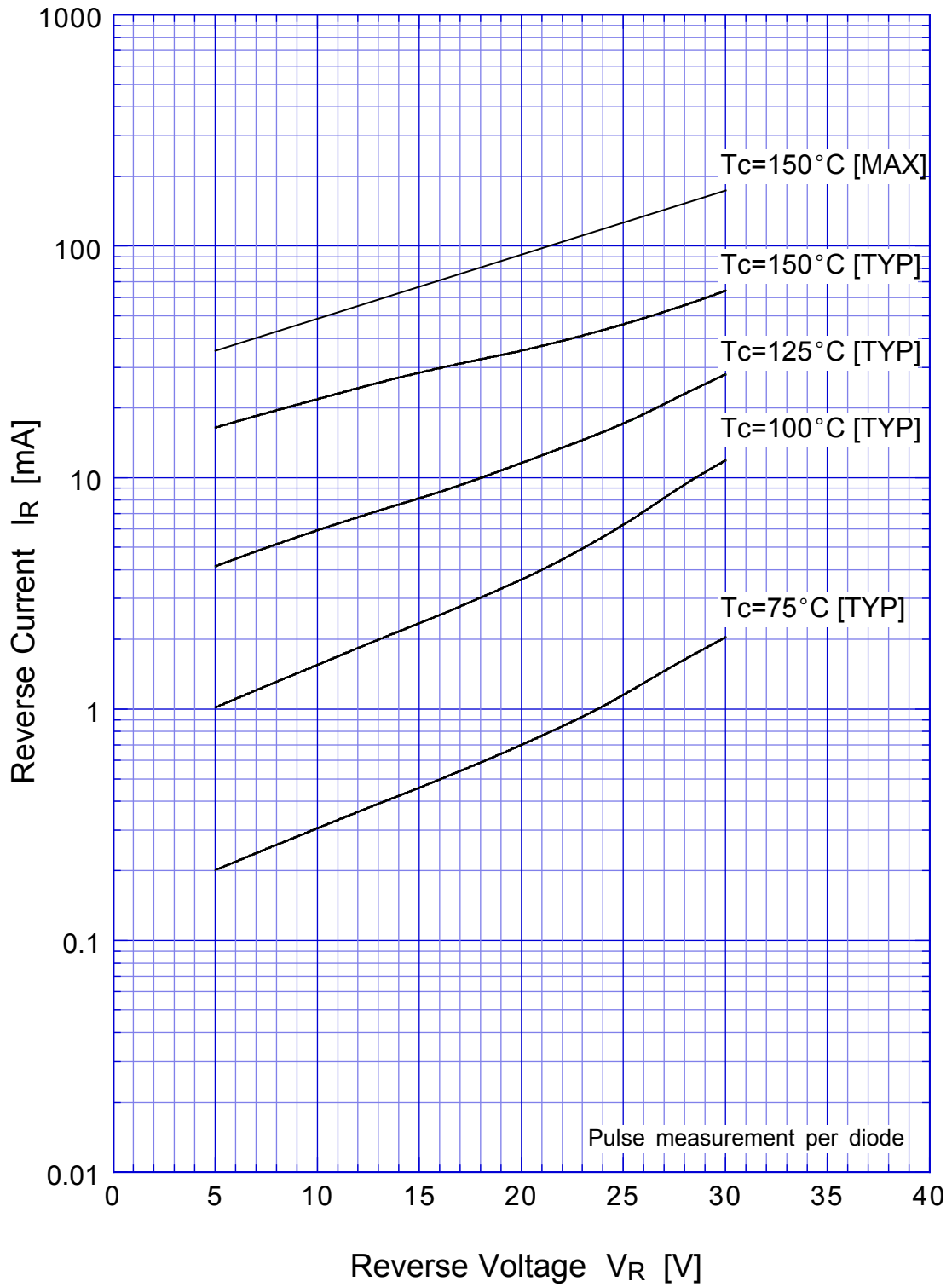
# DE5SC3ML Forward Voltage



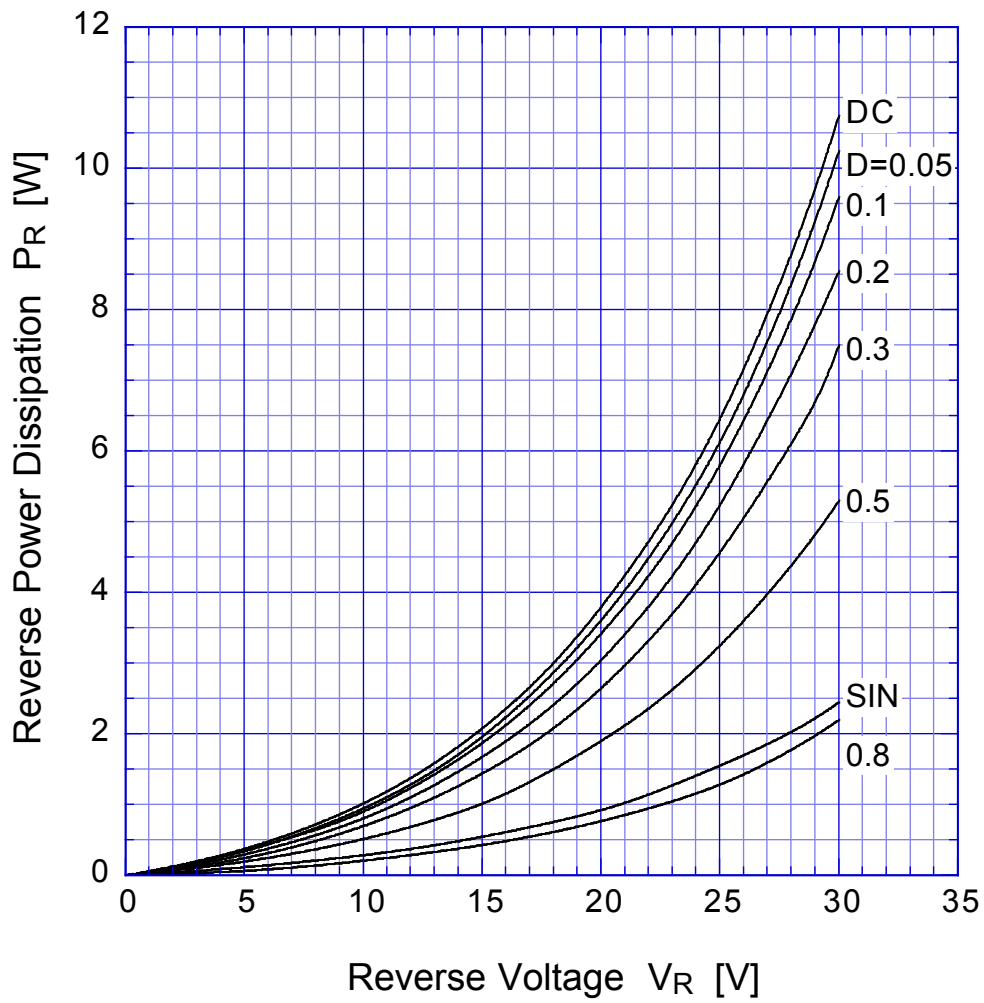
# DE5SC3ML Junction Capacitance



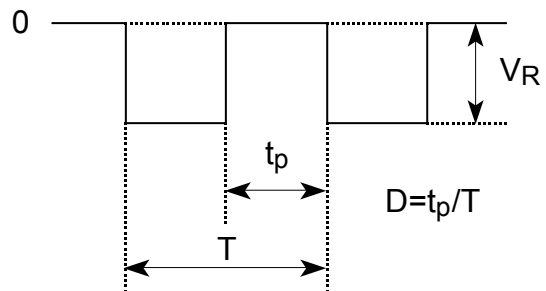
# DE5SC3ML Reverse Current



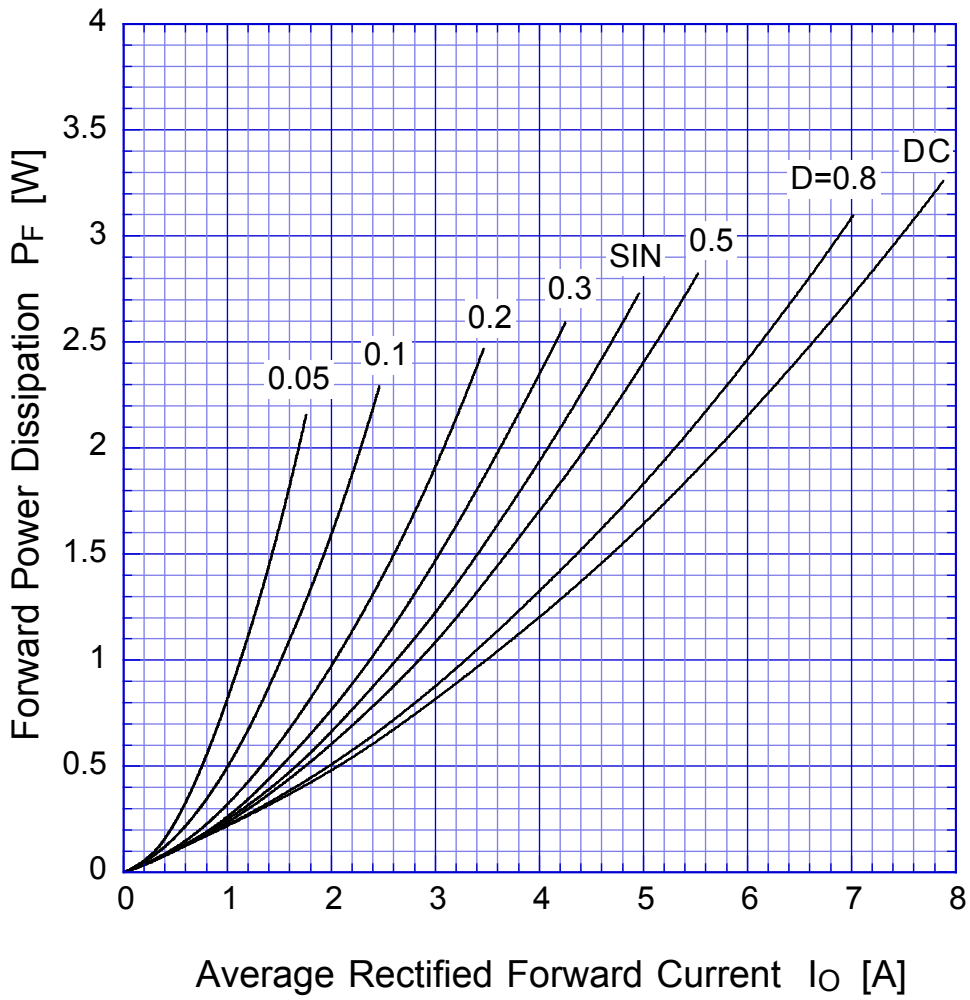
## DE5SC3ML Reverse Power Dissipation



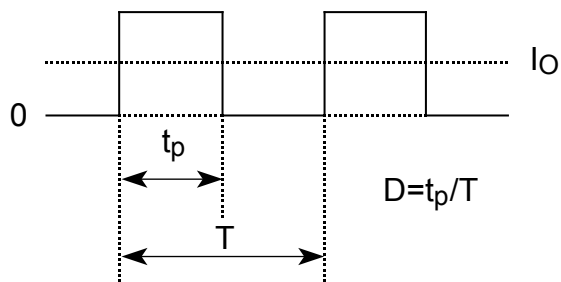
$T_j = 150^\circ\text{C}$



# DE5SC3ML Forward Power Dissipation

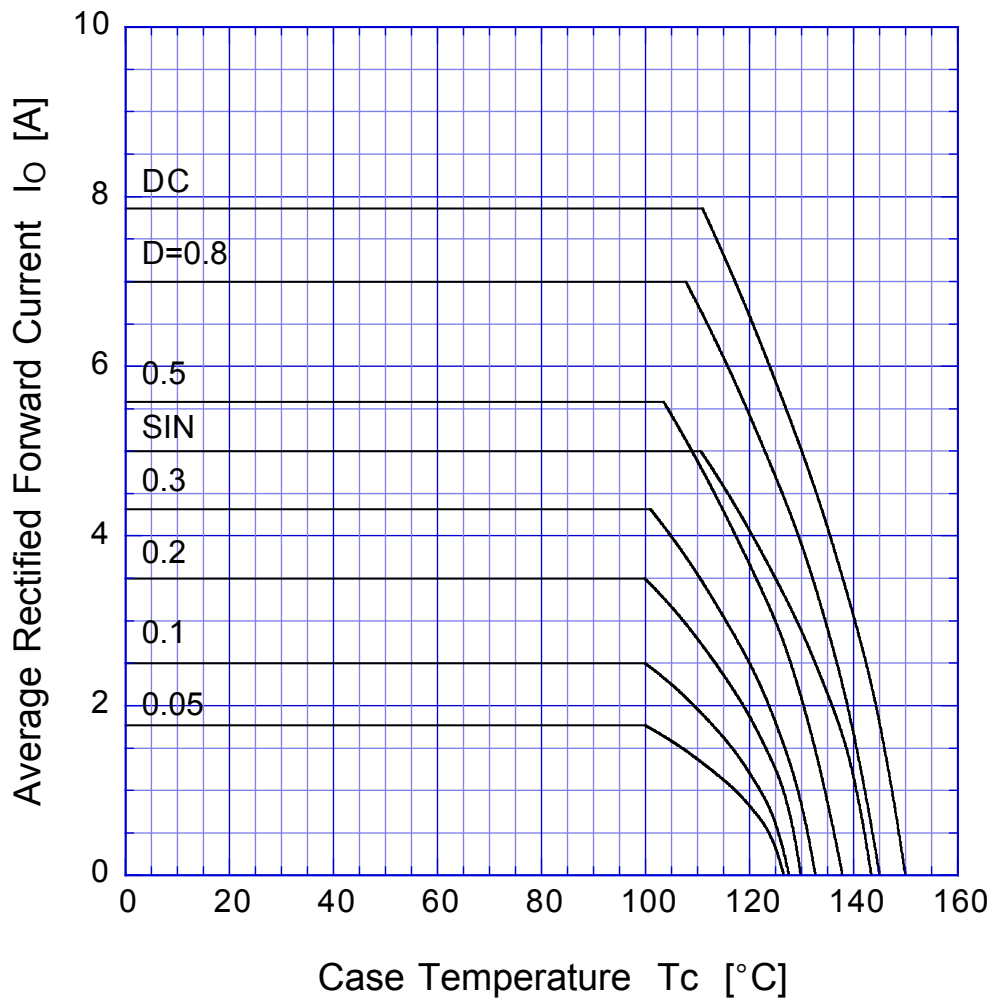


$T_j = 150^\circ\text{C}$



# DE5SC3ML

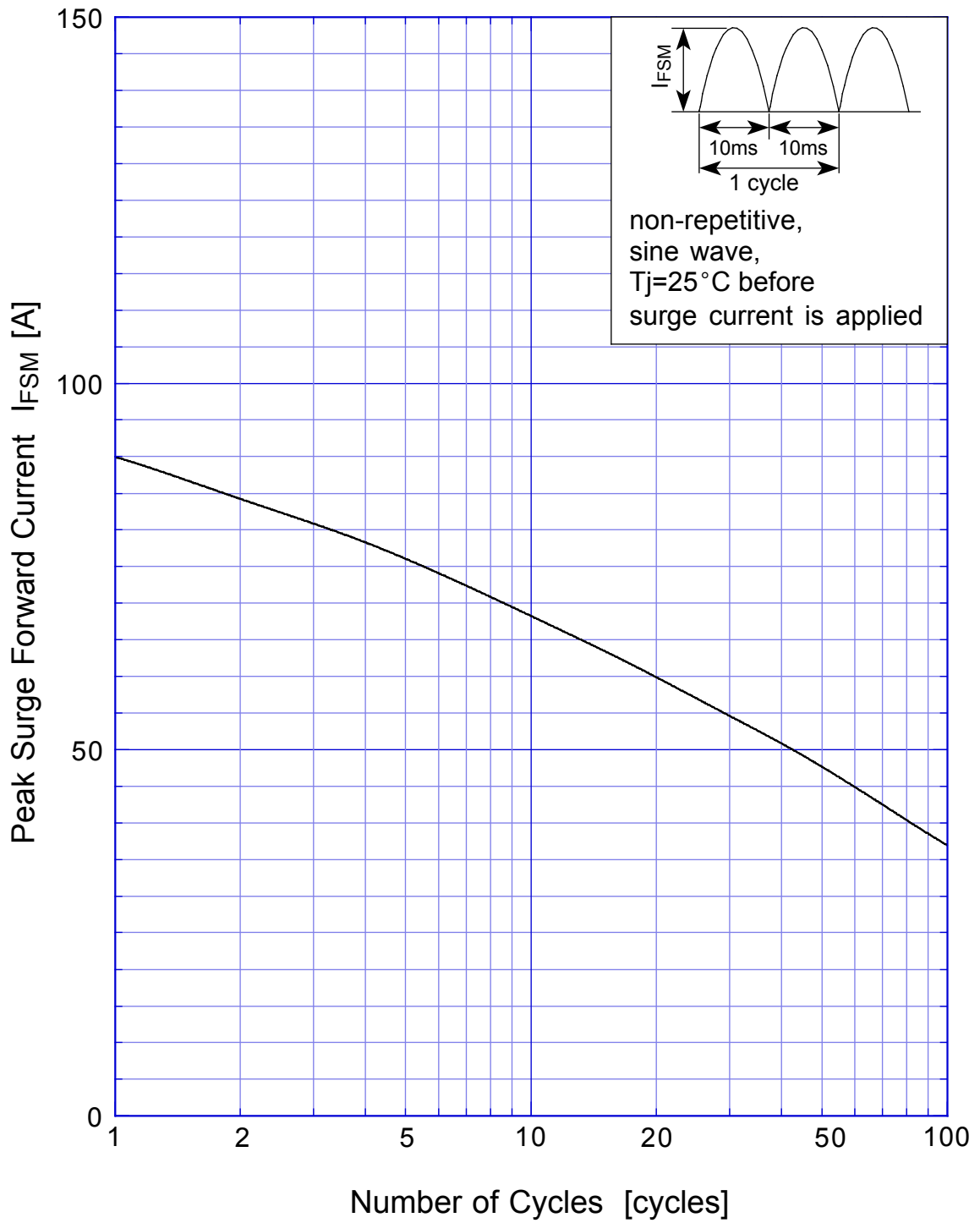
## Derating Curve



$V_R = 15V$

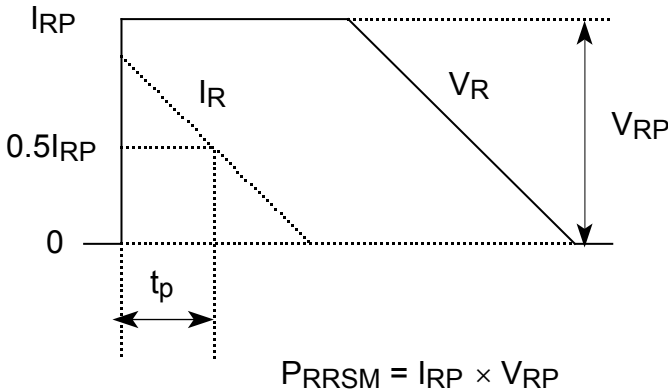
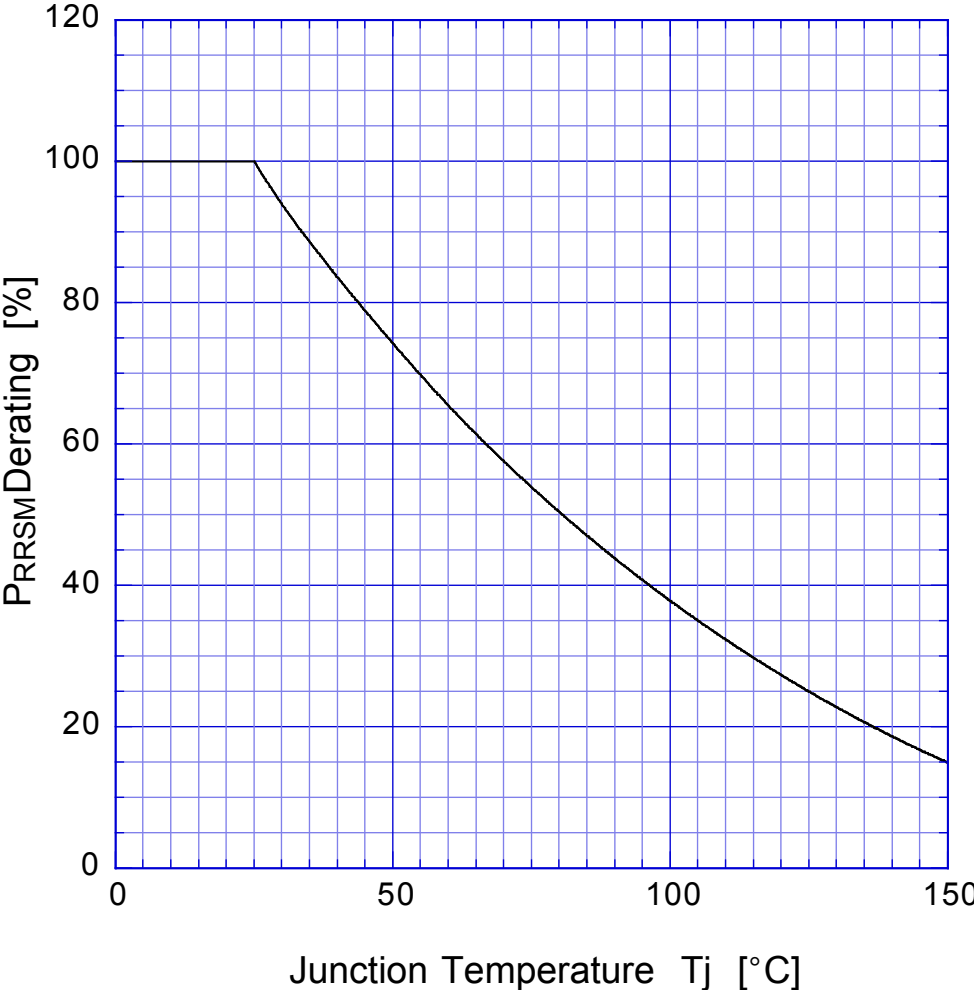


# DE5SC3ML Peak Surge Forward Capability





# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

