SHINDENGEN

Super Fast Recovery Rectifiers

Single

DE3L40

400V 3A

FEATURES

- SMT
- Low noise
- trr50ns

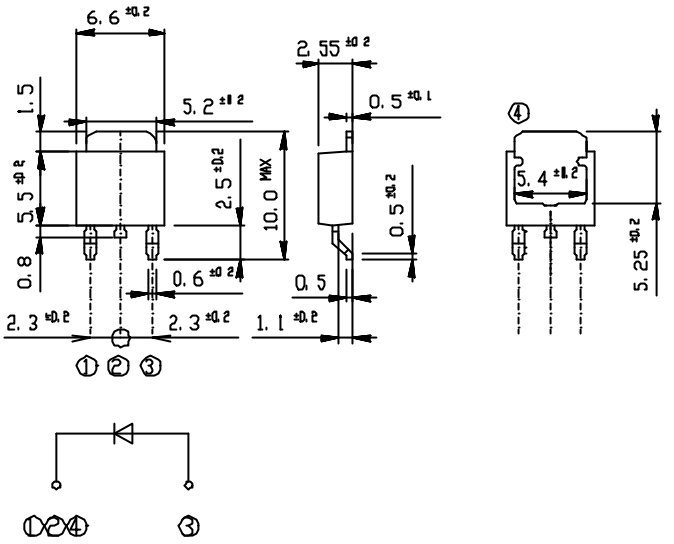
APPLICATION

- Switching power supply
- DC/DC converter
- Free Wheel
- Home Appliances, Office Equipment
- Telecommunication, Factory Automation

OUTLINE DIMENSIONS

Case : E-pack

(Unit : mm)



RATINGS

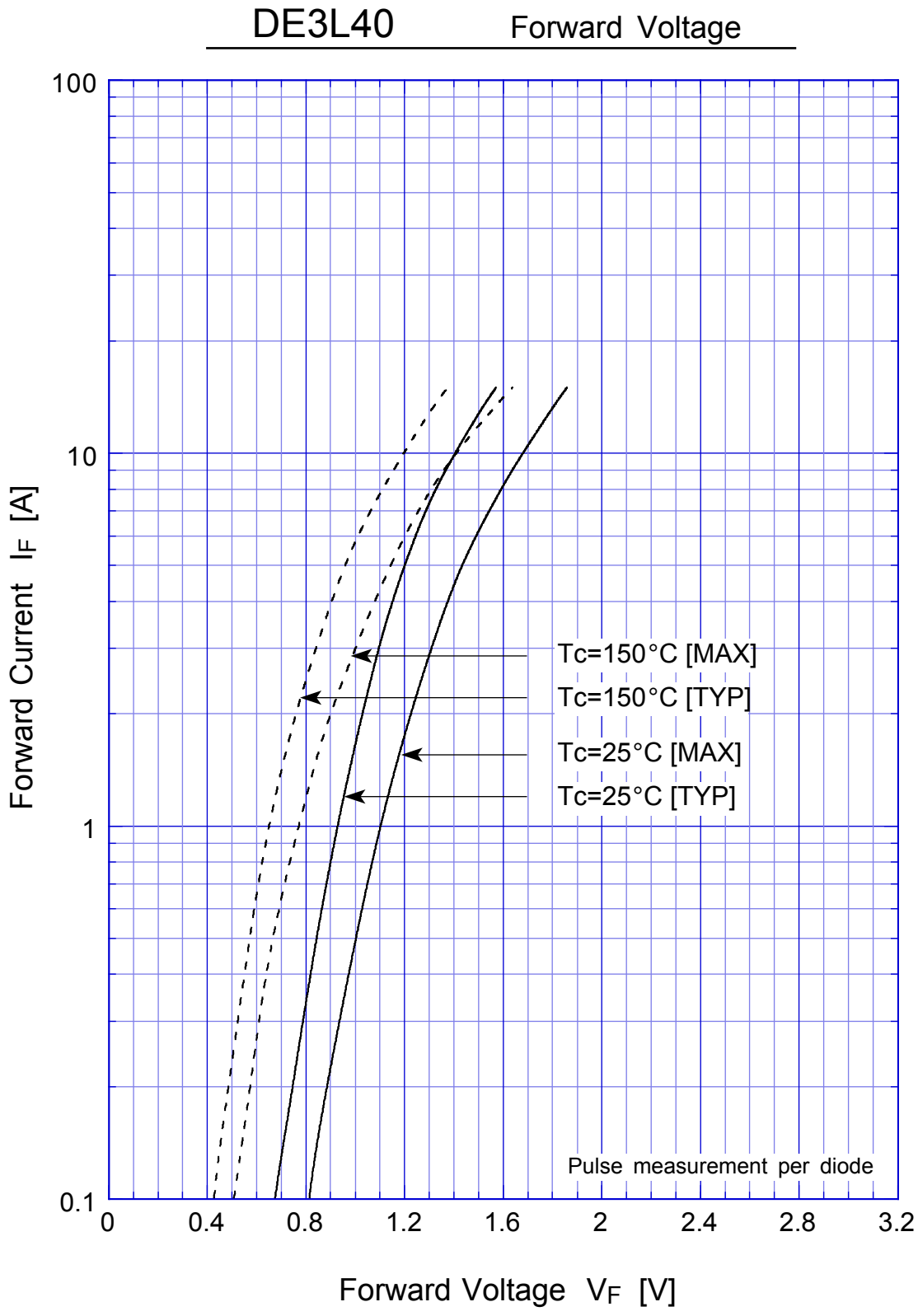
●Absolute Maximum Ratings (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55～150	°C
Operating Junction Temperature	Tj		150	°C
Maximum Reverse Voltage	V_{RM}		400	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load, Tc=99°C	3	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	50	A

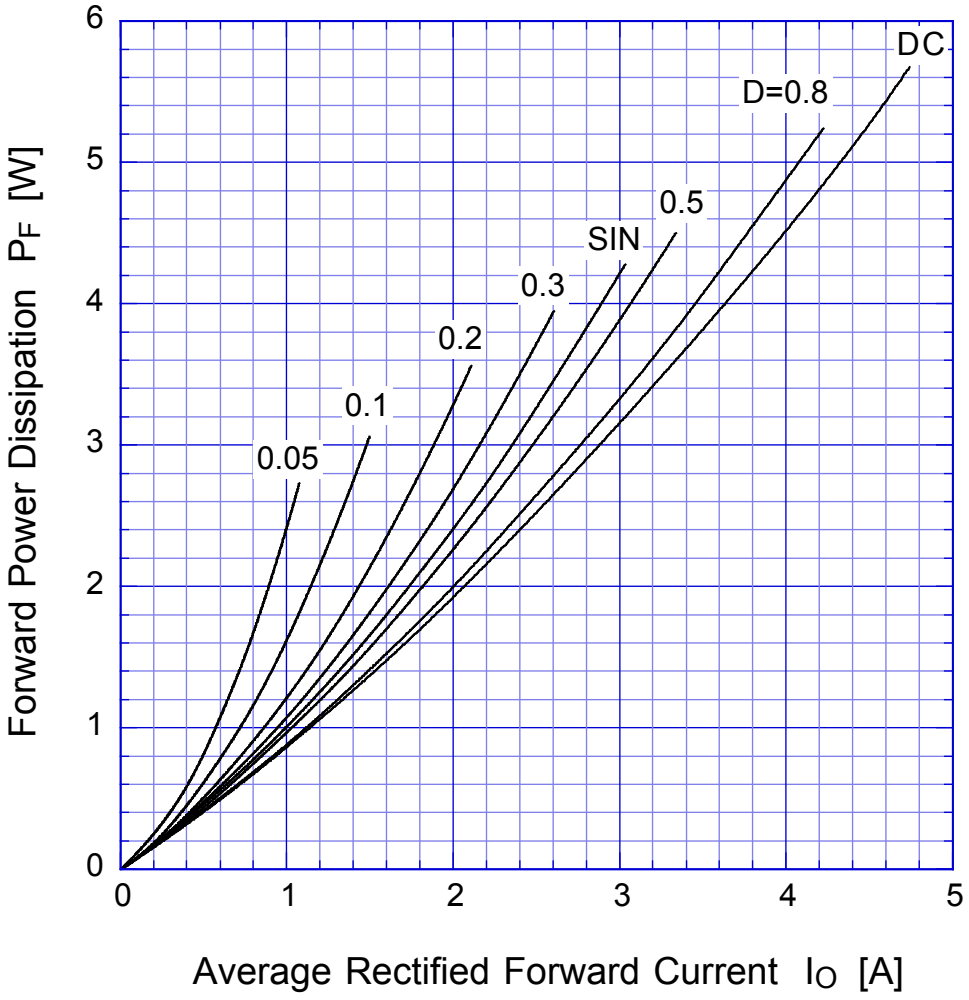
●Electrical Characteristics (If not specified Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	I_F=3A, Pulse measurement	Max.1.3	V
Reverse Current	I_R	V_R=V_{RM}, Pulse measurement	Max.10	μA
Reverse Recovery Time	trr	I_F=0.5A, I_R=1A	Max.50	ns
Thermal Resistance	θjc	junction to case	Max.12	°C/W

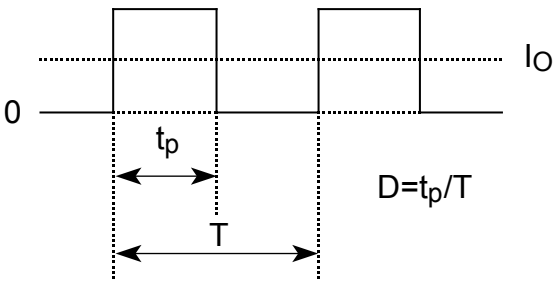
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DE3L40
Forward Voltage
100
10
1
0.1
0
0.4
0.8
1.2
1.6
2
2.4
2.8
3.2
Forward Current IF [A]
Forward Voltage VF [V]
Tc=150°C [MAX]
Tc=150°C [TYP]
Tc=25°C [MAX]
Tc=25°C [TYP]
Pulse measurement per diode

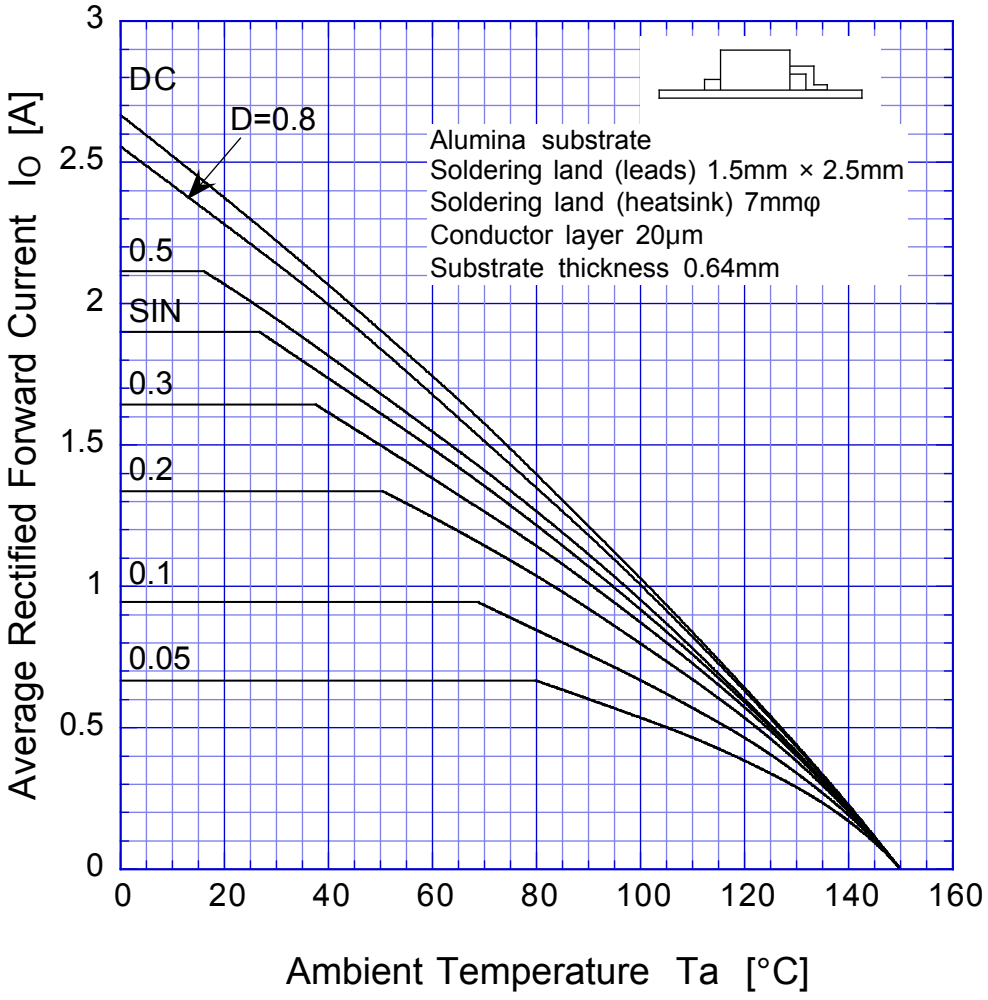
DE3L40 Forward Power Dissipation

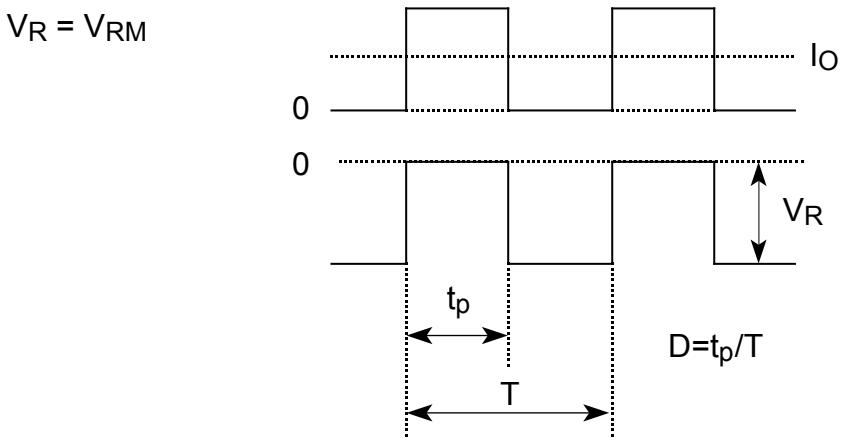


Tj = Tjmax

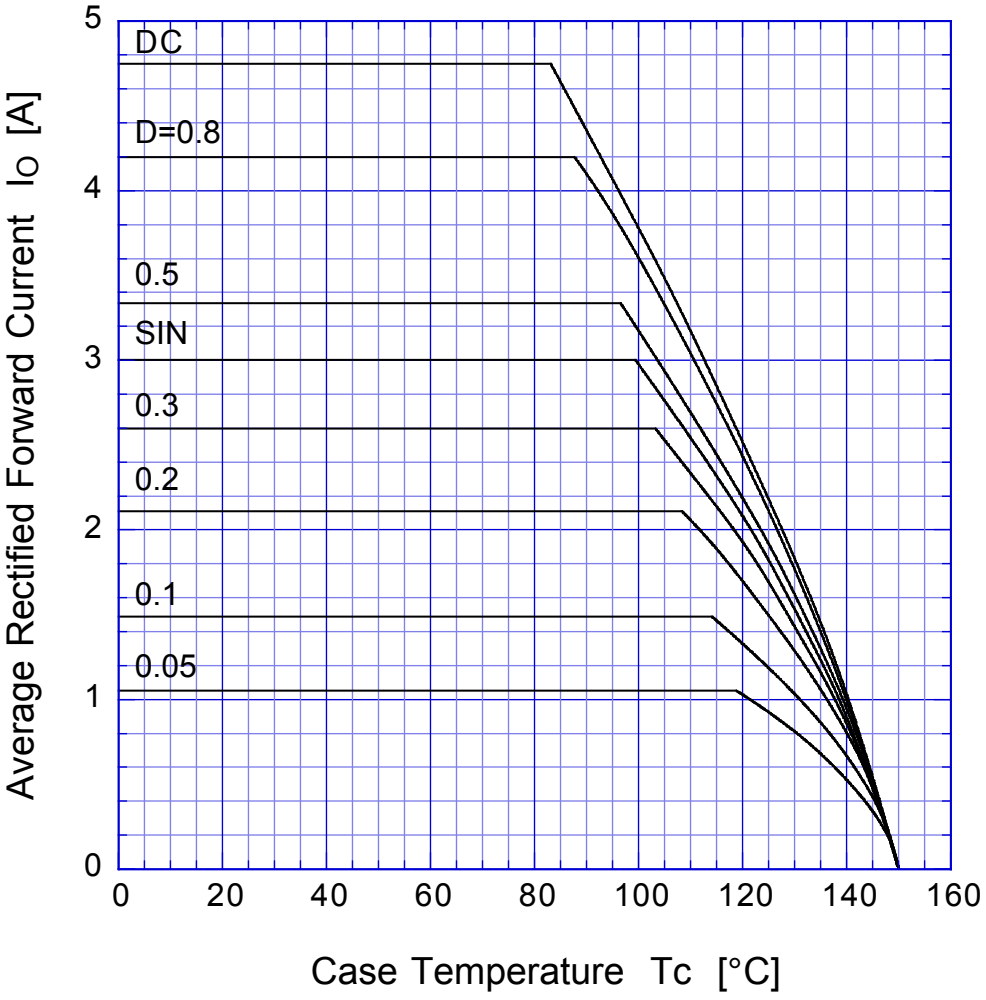


DE3L40 Derating Curve

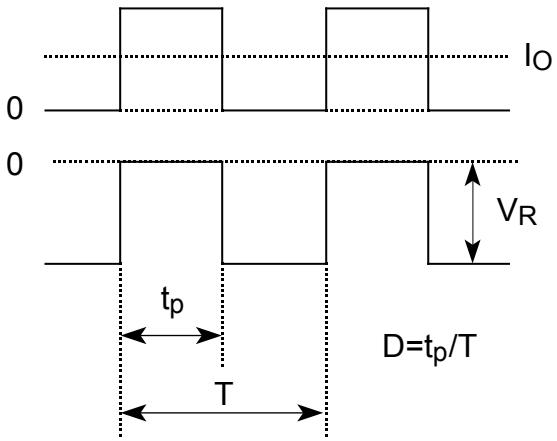




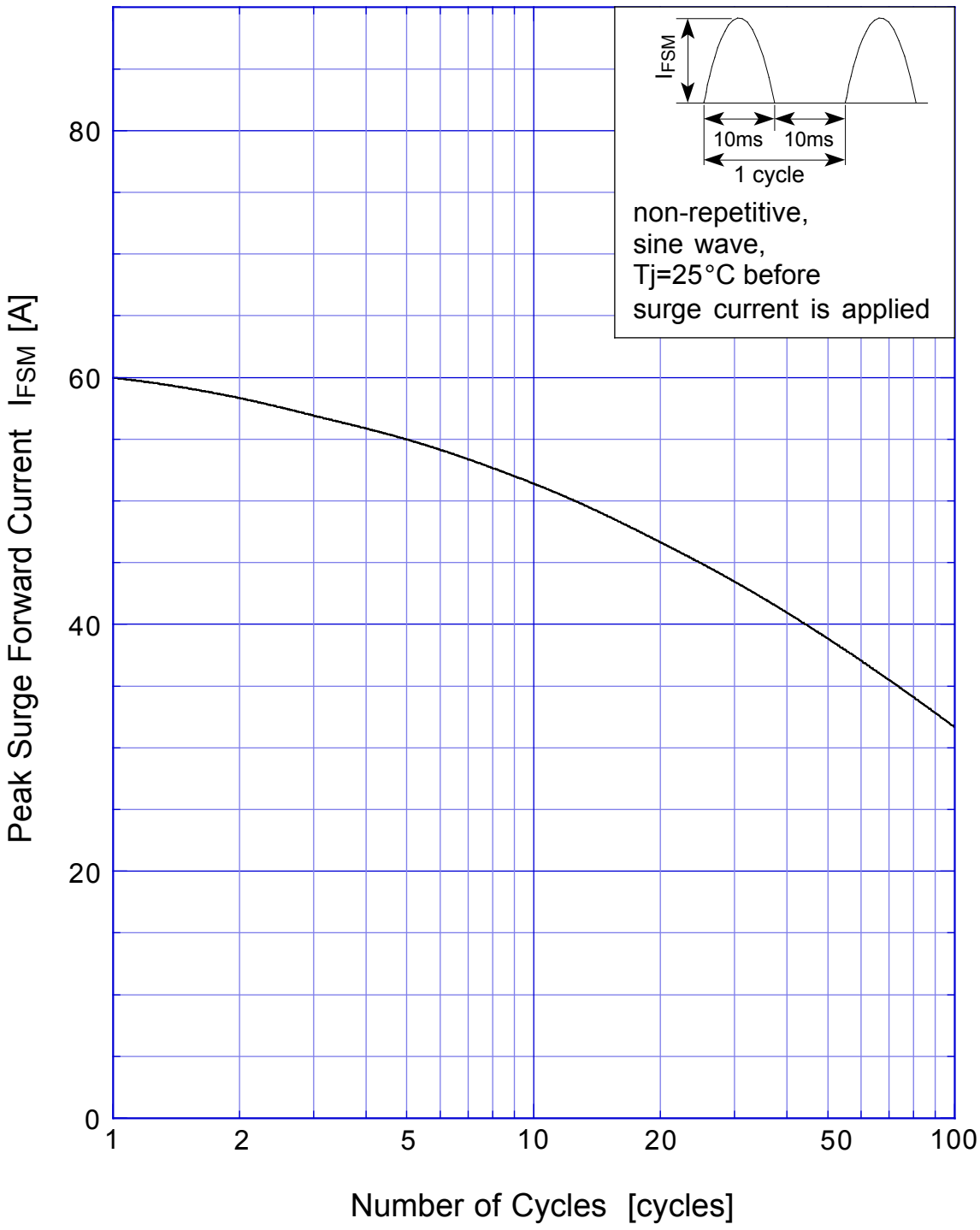
DE3L40 Derating Curve

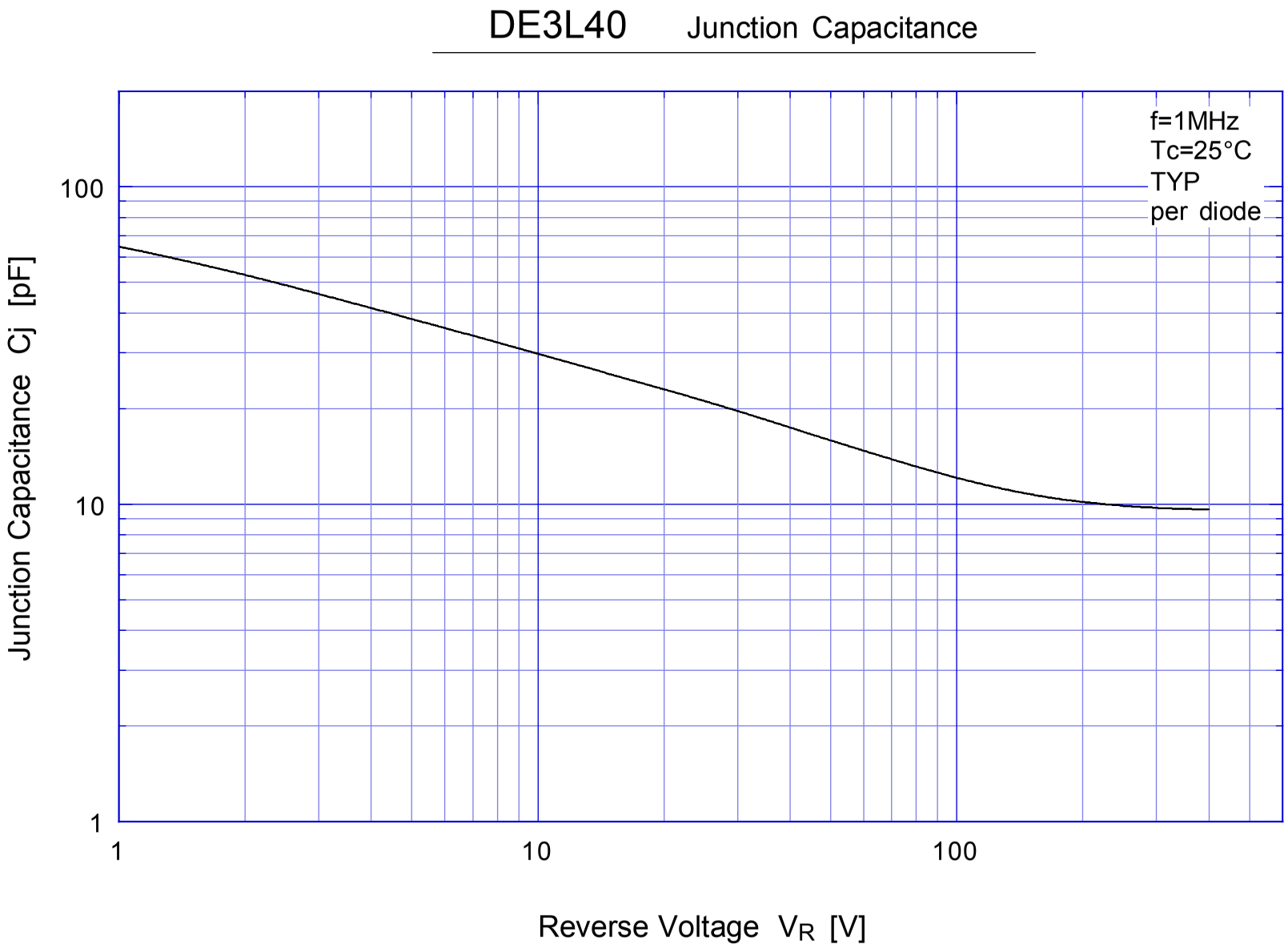


$V_R = V_{RM}$



DE3L40 Peak Surge Forward Capability




DE3L40 Junction Capacitance
f=1MHz
Tc=25°C
TYP
per diode
100
10
1
1
10
100
Junction Capacitance Cj [pF]
Reverse Voltage VR [V]