

SHINDENGEN

Super Fast Recovery Rectifiers

Modules

D120LC40B

400V 120A

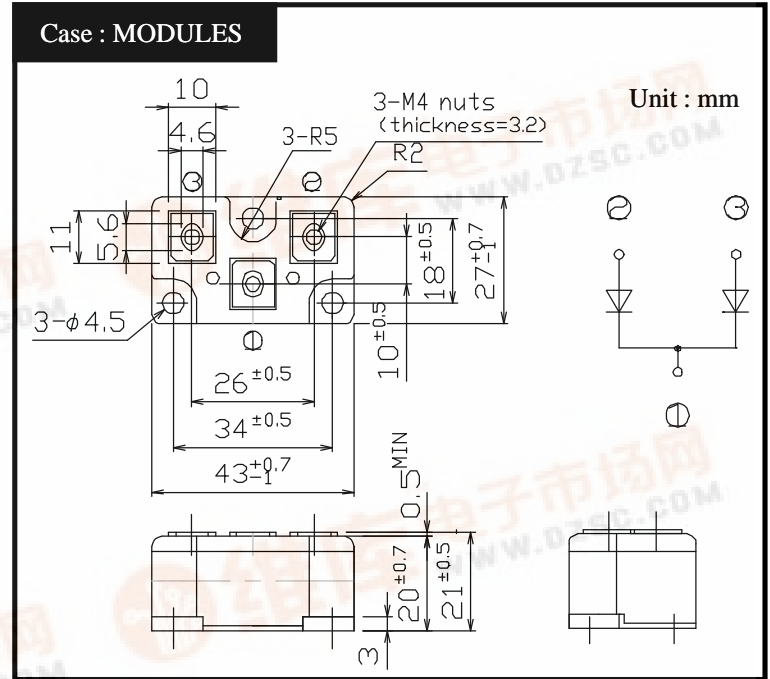
FEATURES

- High current capacity
- trr100ns
- Insulated Package

APPLICATION

- Semiconductor Production Equipment
- Big Power Supply
- Factory Automation, Robot

OUTLINE DIMENSIONS



RATINGS

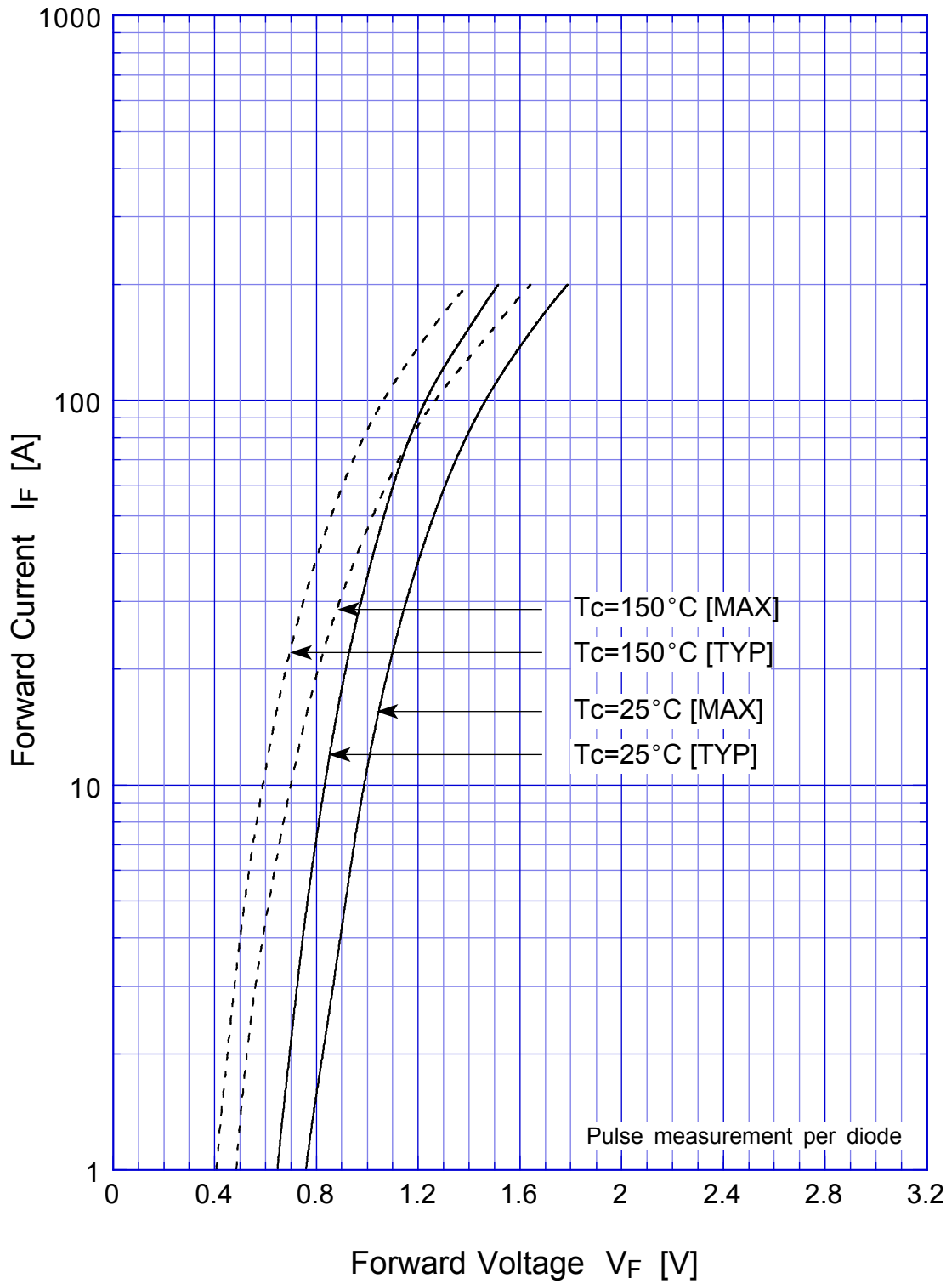
Absolute Maximum Ratings (If not specified Tc=25)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-40 ~ 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	V _{RM}		400	V
Average Rectified Forward Current	I _O	50Hz sine wave, R-load, Rating for each arm I _o /2, Tc=60	120	A
Peak Surge Forward Current	I _{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, Rating of per arm Tj=25	650	A
Dielectric Strength	V _{dis}	Terminals to case, AC 1 minute	1.5	kV
Mounting Torque	TOR		1.7	N·m

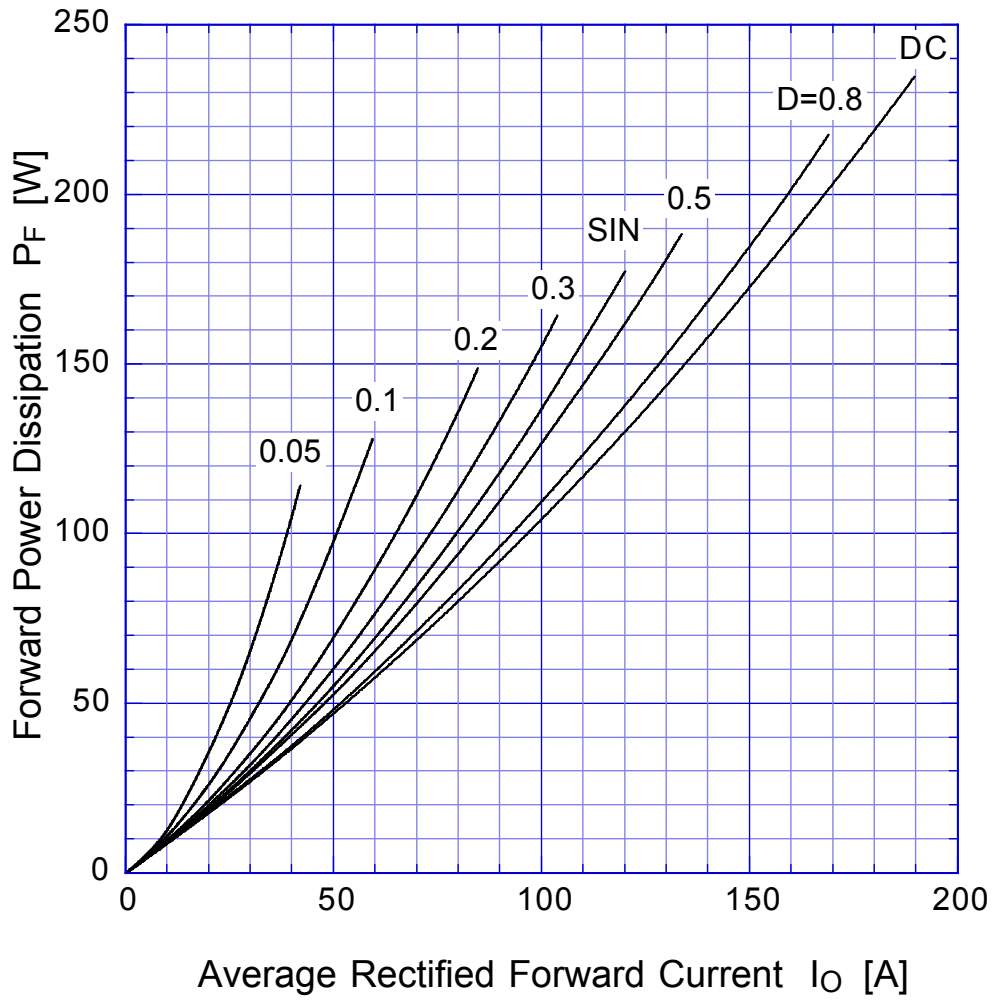
Electrical Characteristics (If not specified Tc=25)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F =60A, Pulse measurement, Rating of per arm	Max.1.3	V
Reverse Current	I _R	V _R =V _{RM} , Pulse measurement, Rating of per arm	Max.25	μA
Reverse Recovery Time	trr	I _F =0.5A, I _R =1A, Rating of per arm	Max.100	ns
Thermal Resistance	jc	junction to case	Max.0.5	/W

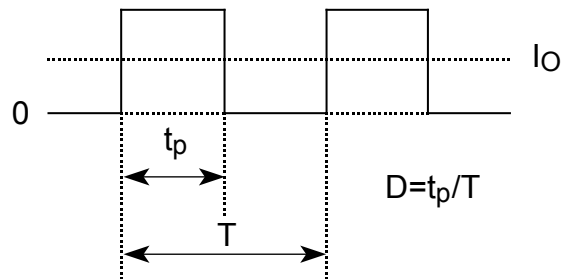
D120LC40B Forward Voltage



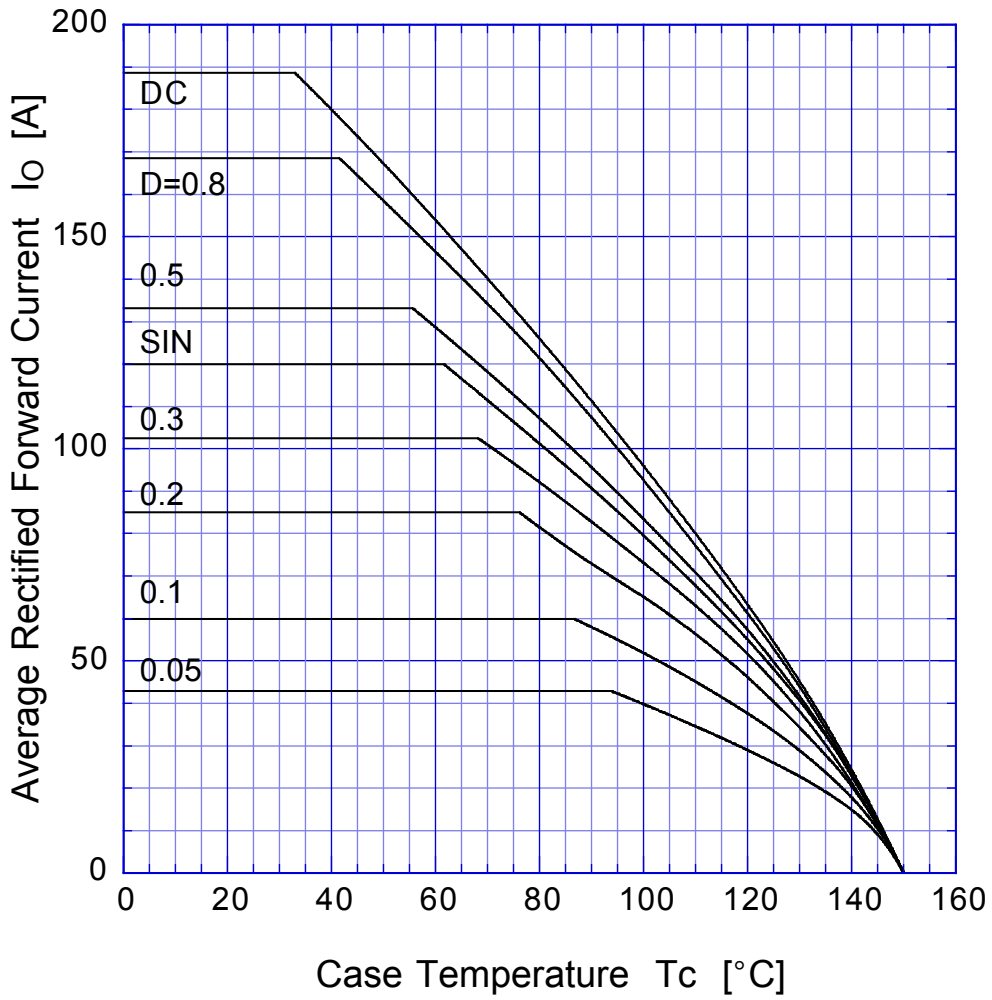
D120LC40B Forward Power Dissipation



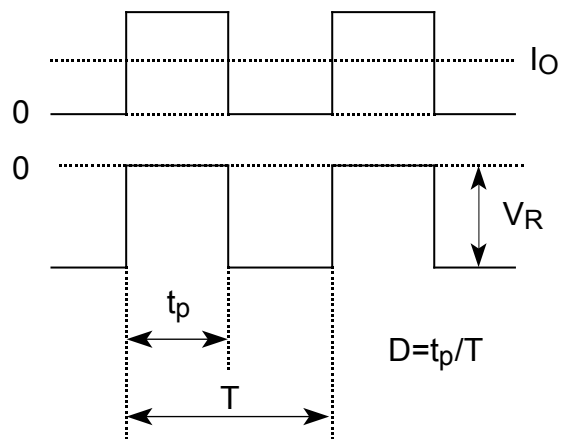
$T_j = T_{jmax}$



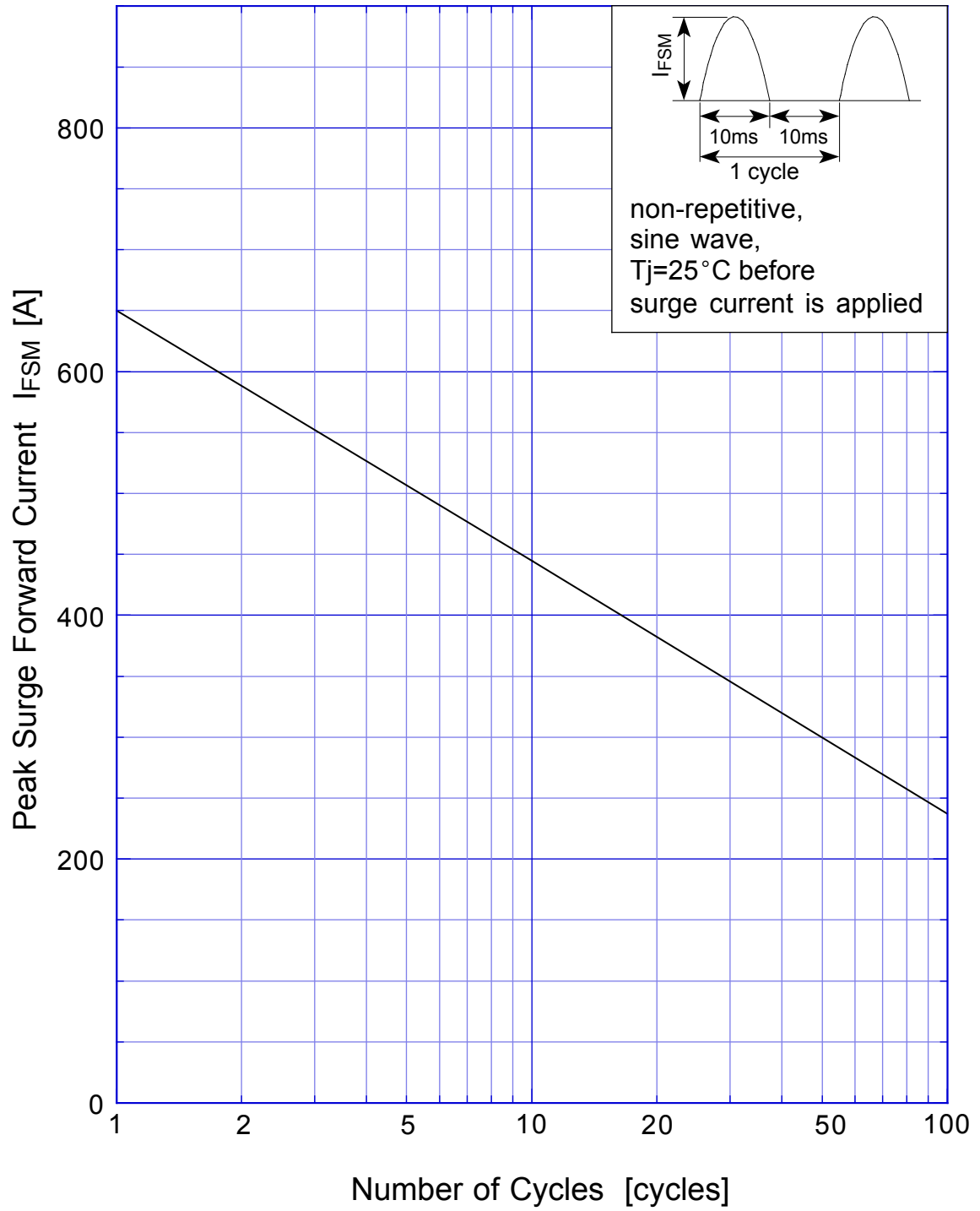
D120LC40B Derating Curve



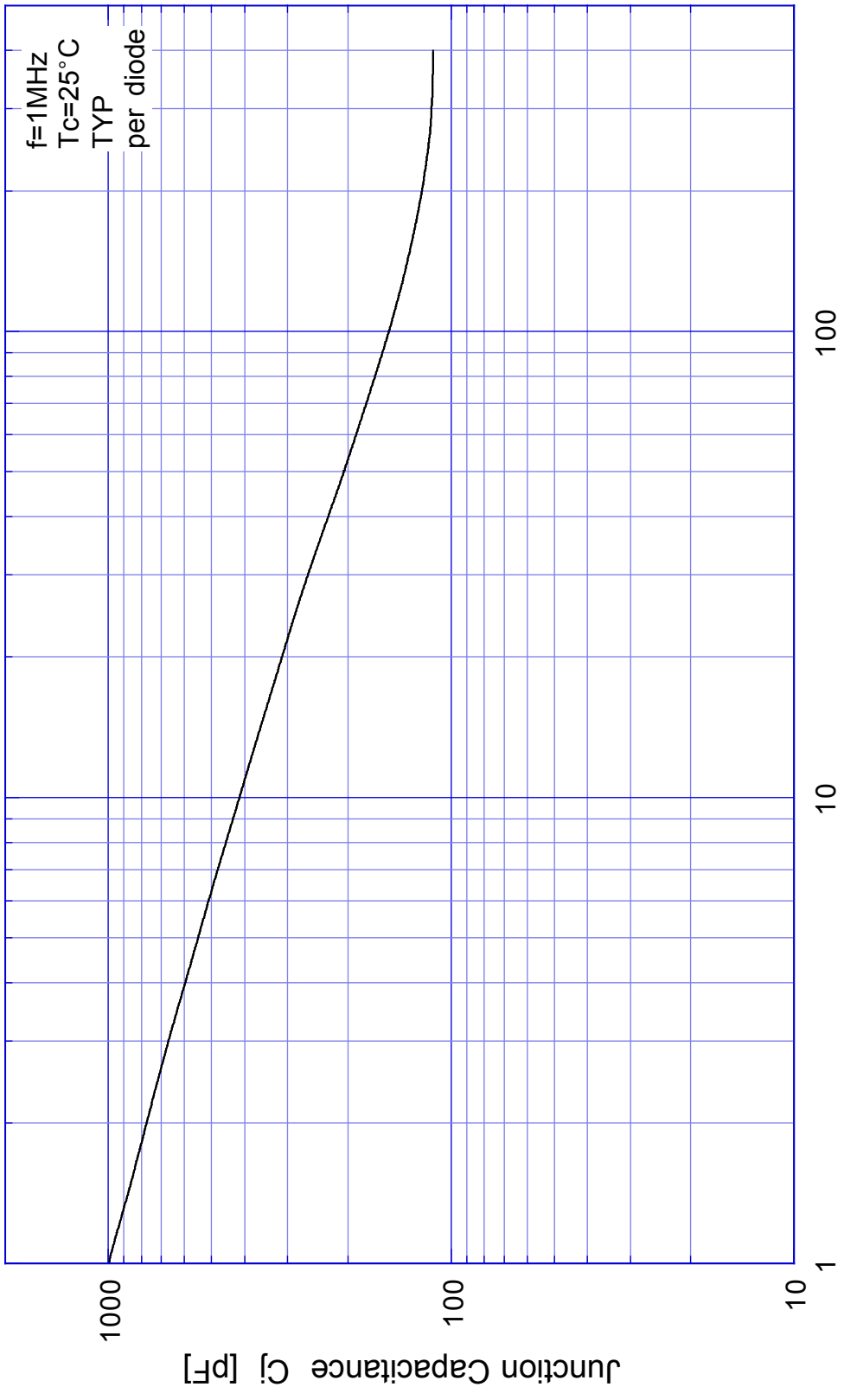
$$V_R = V_{RM}$$



D120LC40B Peak Surge Forward Capability



D120LC40B Junction Capacitance



Reverse Voltage V_R [V]