

SHINDENGEN

Super Fast Recovery Rectifiers

Modules

D240LC40

400V 240A

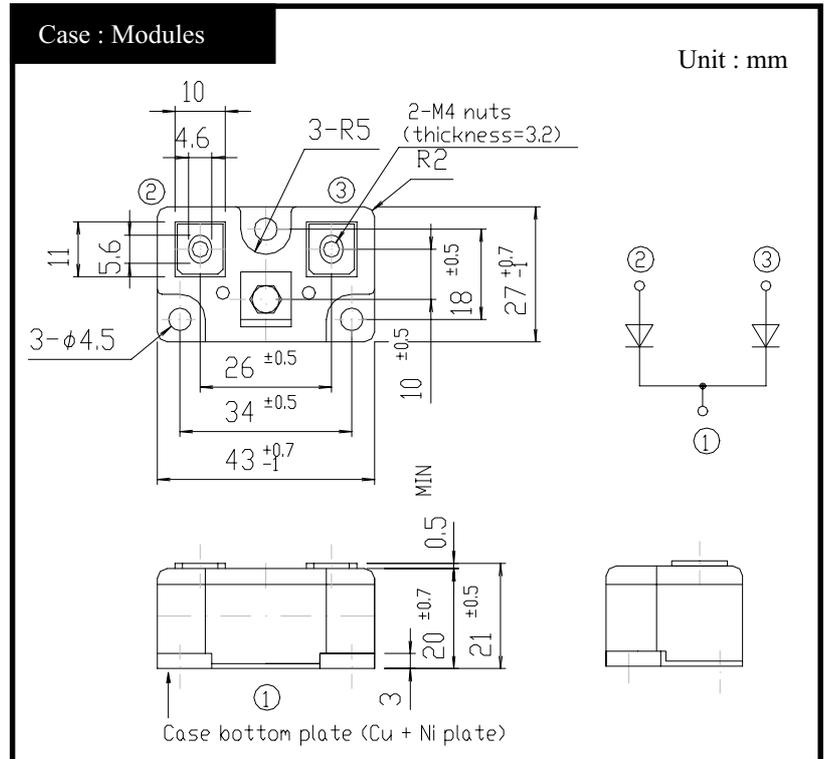
FEATURES

- High current capacity
- trr150ns
- Small θ_{jc}

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

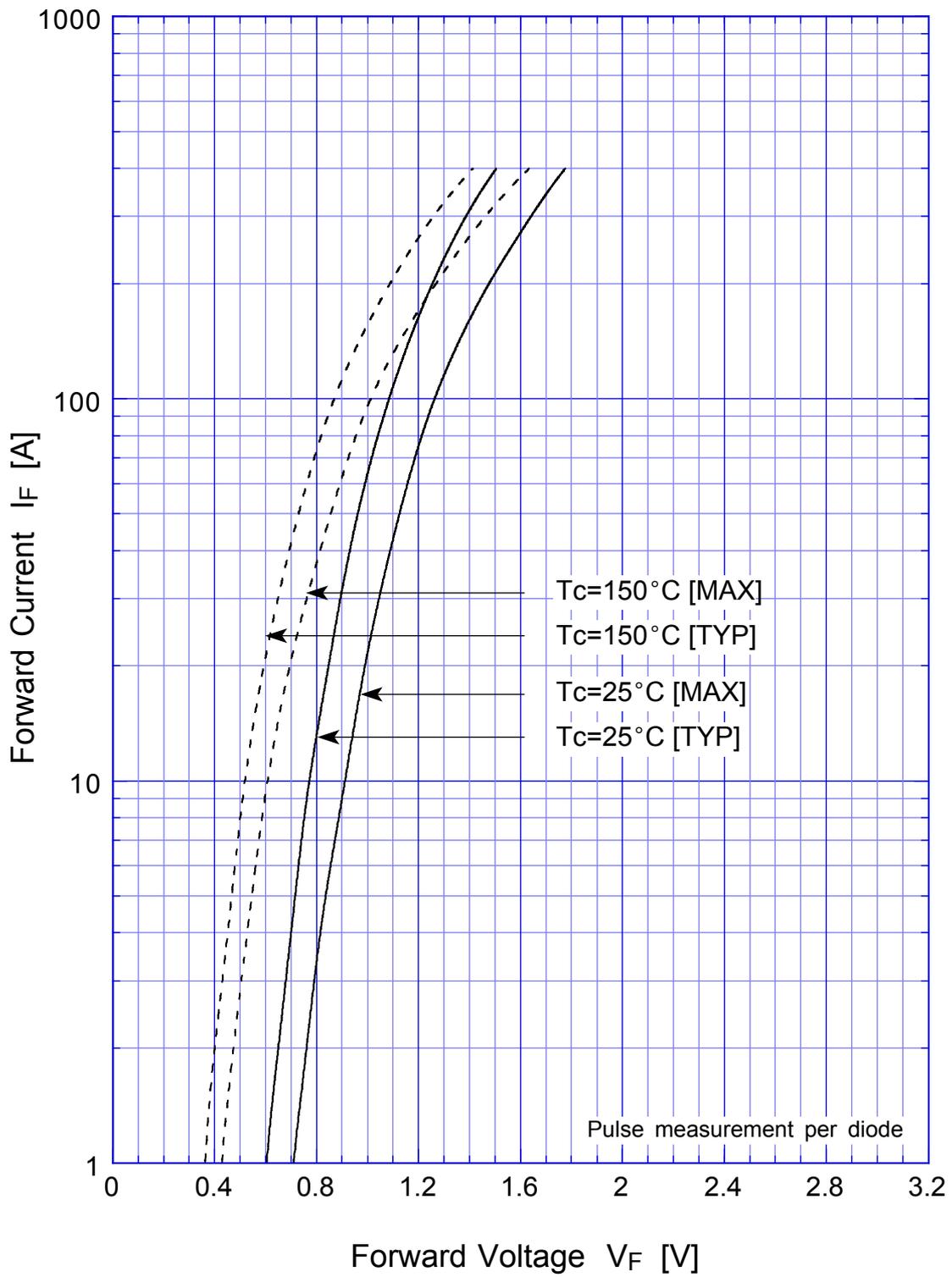
● Absolute Maximum Ratings (If not specified $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-40~150	$^\circ\text{C}$
Operating Junction Temperature	T_j		150	$^\circ\text{C}$
Maximum Reverse Voltage	V_{RM}		400	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Rating for each arm $I_o/2$, $T_c=77^\circ\text{C}$	240	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Rating of per arm $T_j=25^\circ\text{C}$	1400	A
Mounting Torque	TOR		1.7	N·m

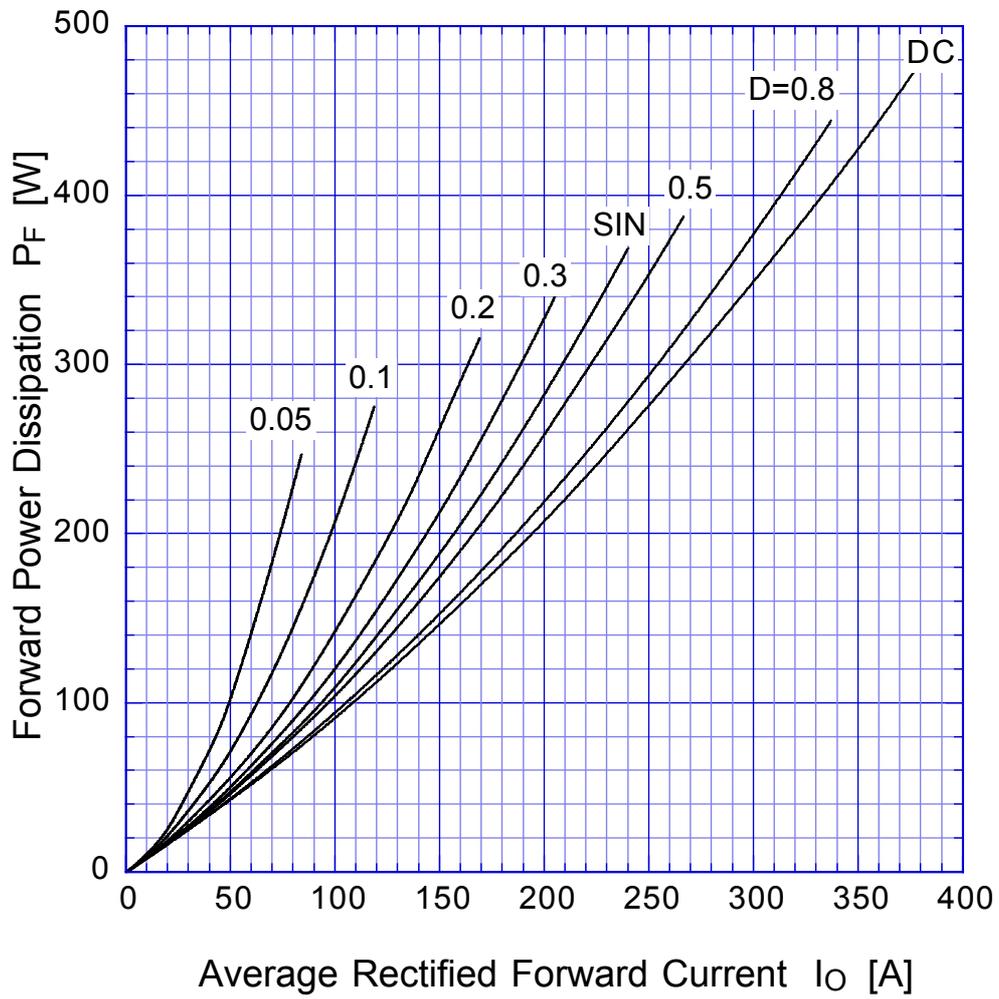
● Electrical Characteristics (If not specified $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=120\text{A}$, 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.50	μA
Reverse Recovery Time	trr	$I_F=0.5\text{A}$, $I_R=1\text{A}$, Rating of per arm	Max.150	ns
Thermal Resistance	θ_{jc}	junction to case	Max.0.2	$^\circ\text{C}/\text{W}$

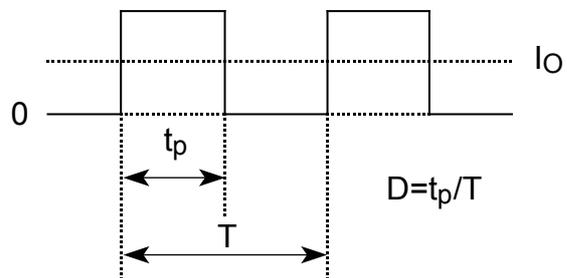
D240LC40 Forward Voltage



D240LC40 Forward Power Dissipation

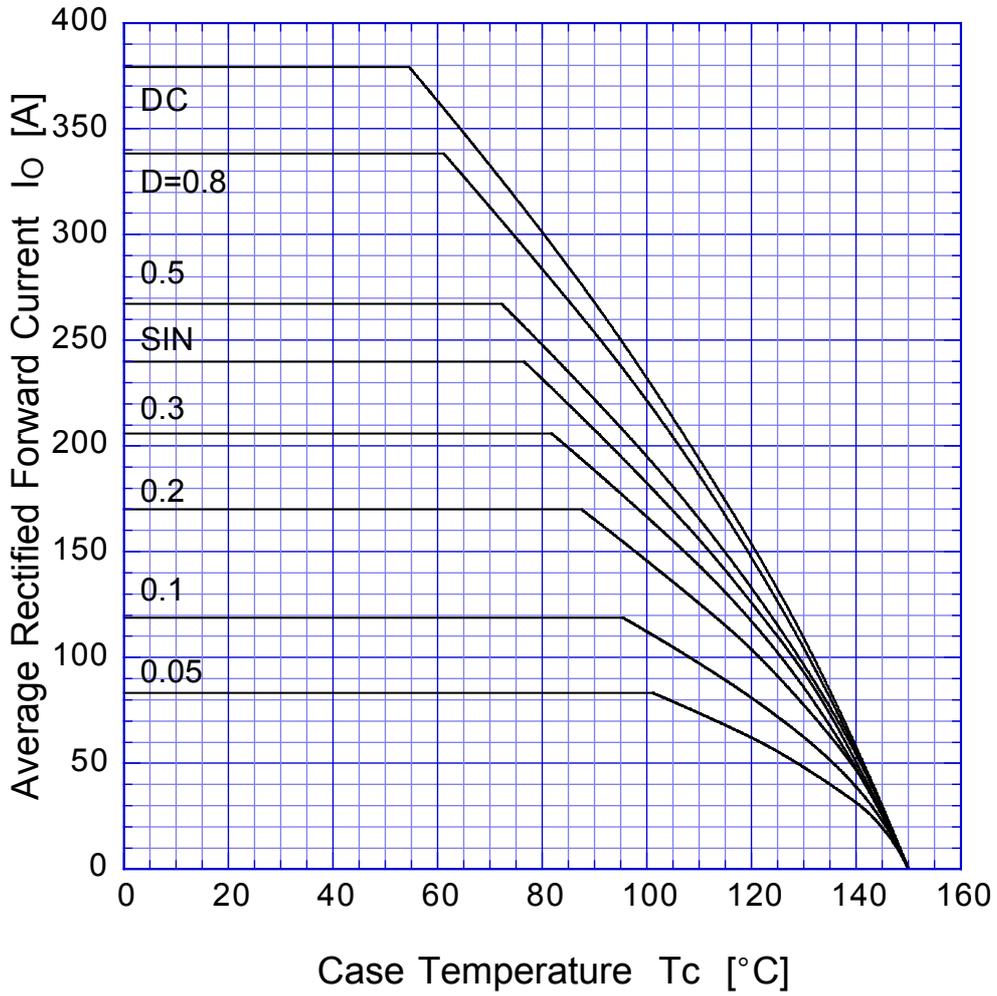


$T_j = T_{jmax}$

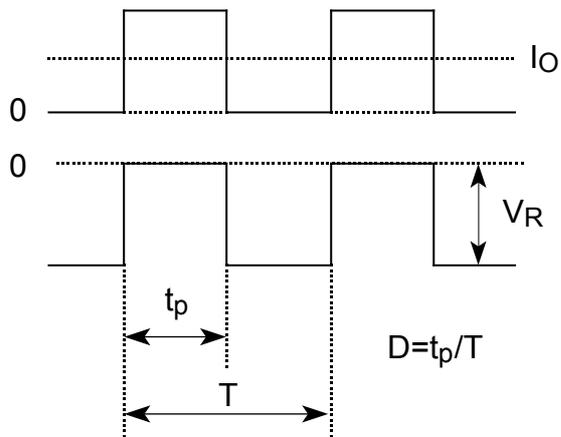


D240LC40

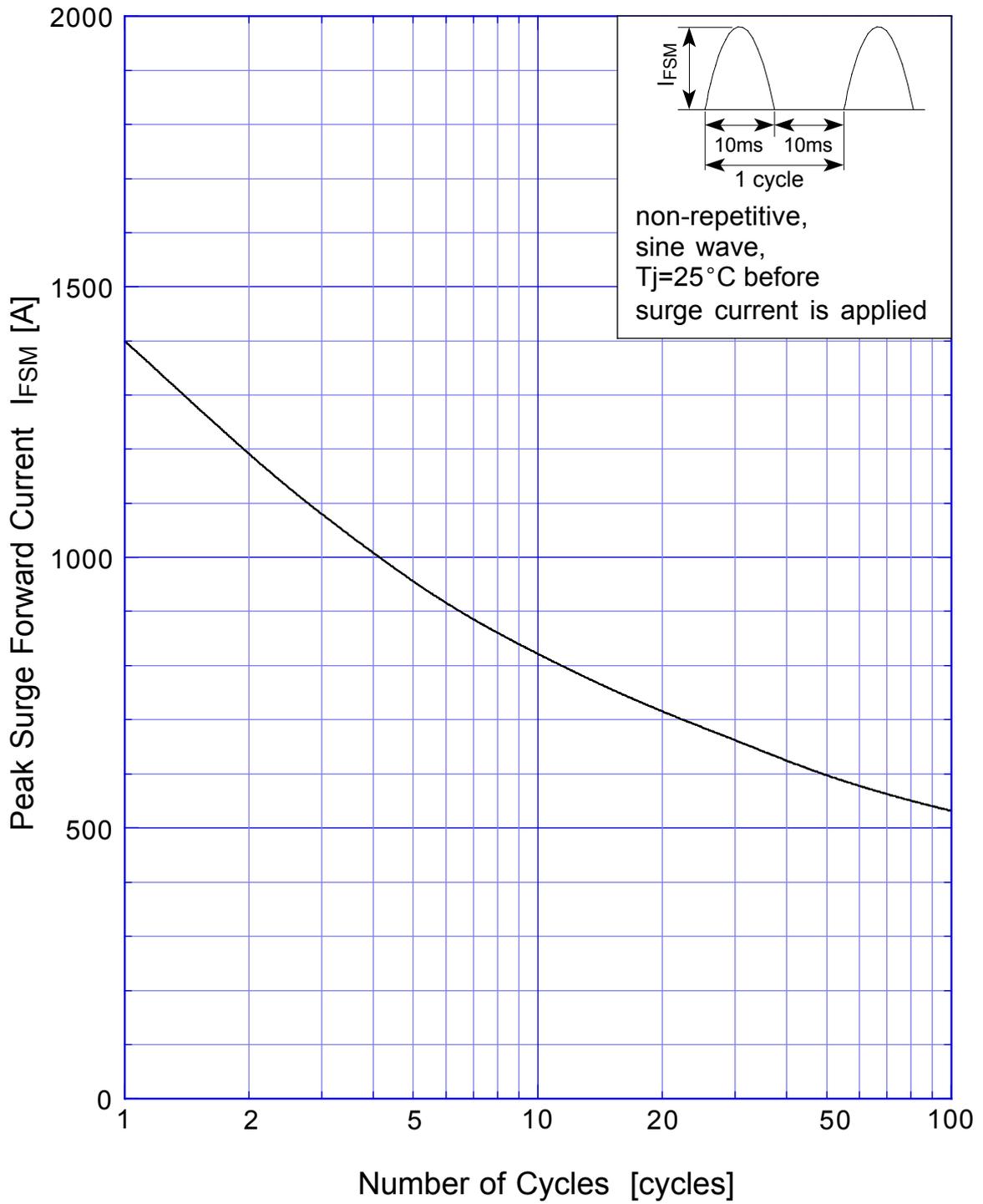
Derating Curve



$$V_R = V_{RM}$$



D240LC40 Peak Surge Forward Capability



D240LC40 Junction Capacitance

