

# Nips Diode Modules (Water Cooling) MD1000D\*\*W MC1000D\*\*W MR1000D\*\*W

## Features :

- Isolated mounting base 2500V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

## Typical Applications

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

V <sub>RSM</sub>	V <sub>RPM</sub>	品名
900V	800V	Mx1000D80W
1100V	1000V	Mx1000D100W
1300V	1200V	Mx1000D120W
1500V	1400V	Mx1000D140W
1700V	1600V	Mx1000D160W
1900V	1800V	Mx1000D180W

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min.	Typ.	Max.	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =60°C	150			1000	A
I <sub>F(RMS)</sub>	RMS forward current		150			1570	A
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			40	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave V <sub>R</sub> =0.6V <sub>RRM</sub>	150			24	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					2880	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>FO</sub>	Threshold voltage		150			0.75	V
r <sub>F</sub>	Forward slope resistance					0.25	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =3000A	25			1.82	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	D.C. Single side cooled per chip				0.065	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.018	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M.S, t=1min, I <sub>iso</sub> :1mA(max)		2500			V
F <sub>m</sub>	Terminal connection torque(M12)				14.0		N·m
	Mounting torque(M8)				12.0		N·m
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				3460		g
Outline	M15						

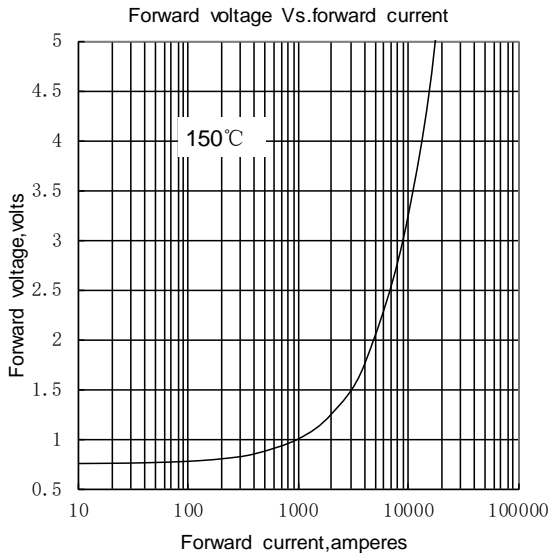


Fig.1

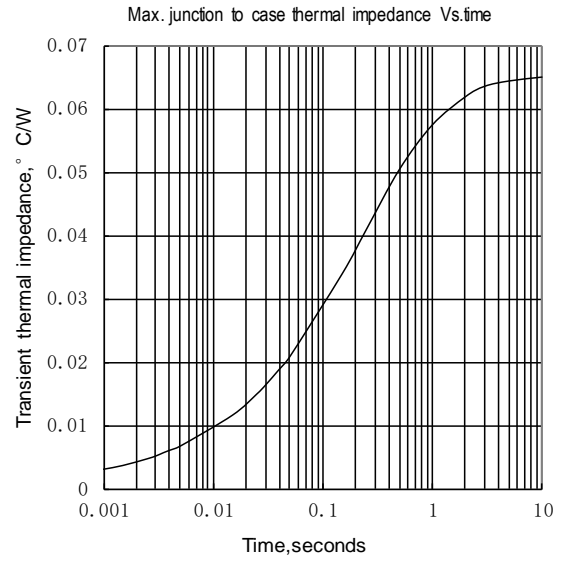


Fig.2

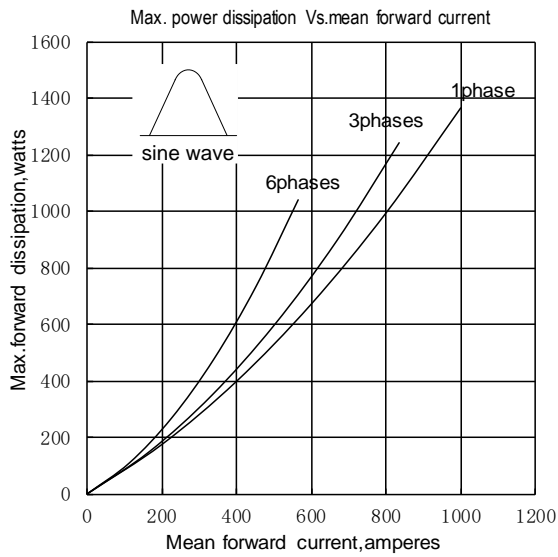


Fig.3

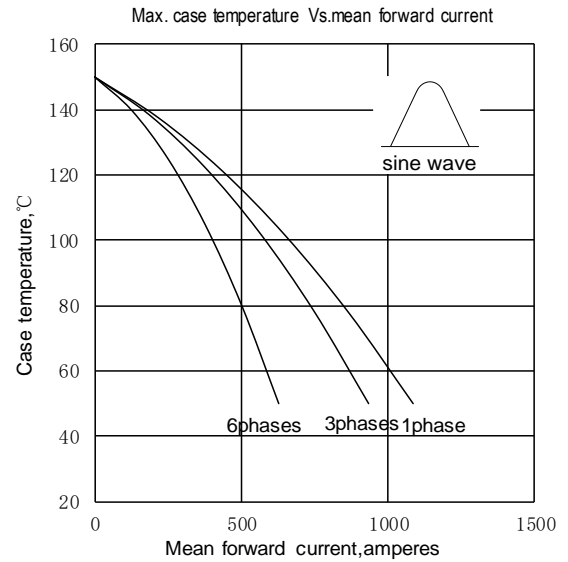


Fig.4

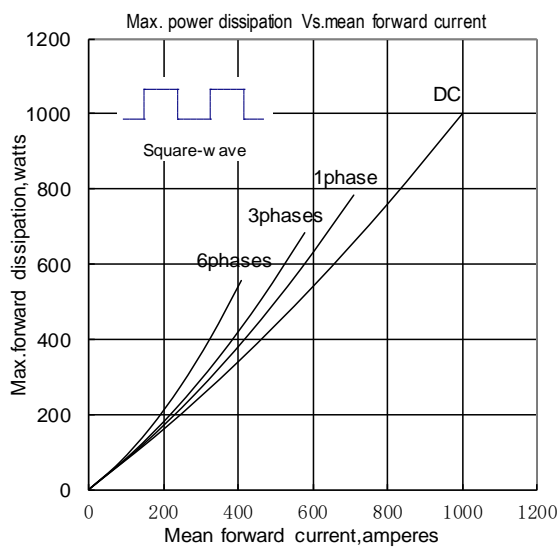


Fig.5

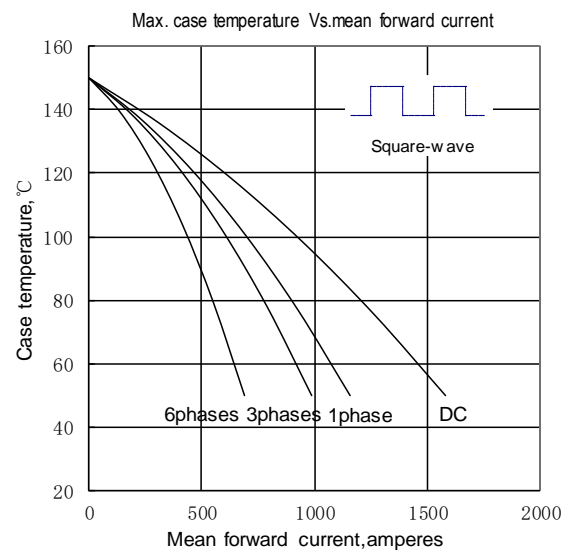


Fig.6

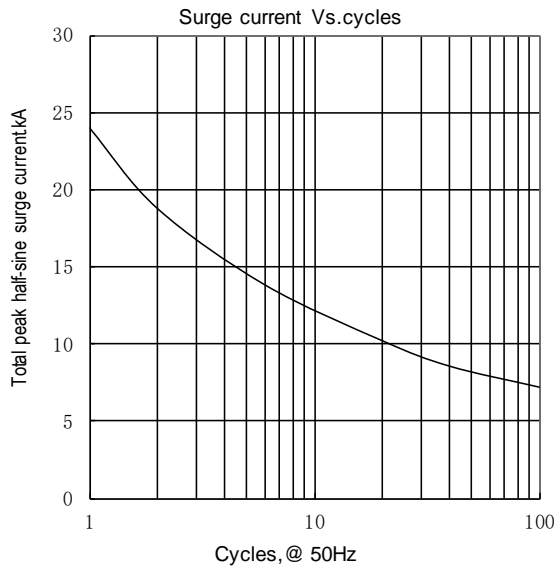
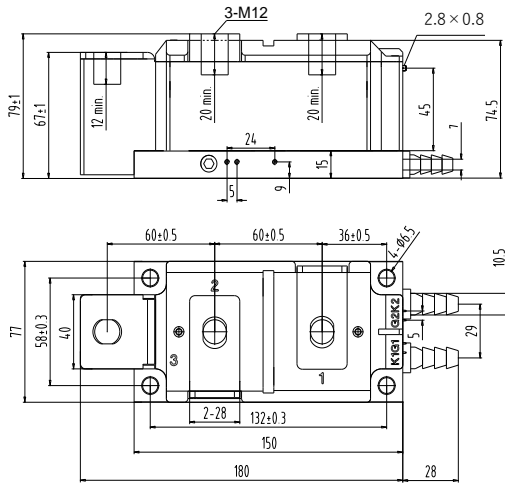
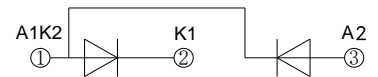


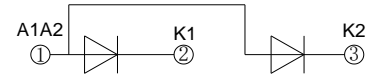
Fig.7



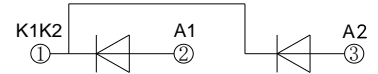
MD1000D\*\*W



MR1000D\*\*W



MC1000D\*\*W



Unmarked dimensional tolerance :  $\pm 0.5\text{mm}$