

Nips Thyristor Modules/Water Cooling MD1000T**W MR1000T**W MC1000T**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 _{DSM} ,V _{RSM}	V _{DRM} ,V _{RRM}	品名
900V	800V	Mx1000T80W
1100V	1000V	Mx1000T100W
1300V	1200V	Mx1000T120W
1500V	1400V	Mx1000T140W
1700V	1600V	Mx1000T160W
1900V	1800V	Mx1000T180W

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min.	Typ.	Max.	
I _{T(AV)}	Mean on-state current	180° half sine wave 50Hz Single side cooled, T _c =55°C	125			1000	A
I _{T(RMS)}	RMS on-state current					1570	A
V _{DRM} /V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	800		1800	V
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			55	mA
I _{TSM}	Surge on-state current	10ms half sine wave, V _R =0.6V _{RRM}	125			26.0	kA
I ² t	I ² t for fusing coordination					3380	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.81	V
r _T	On-state slope resistance					0.21	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =3000A	25			2.0	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =67%V _{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t _r ≤0.5μs Repetitive	125			100	A/μs
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	30		200	mA
V _{GT}	Gate trigger voltage			1.0		3.0	V
I _H	Holding current			20		200	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}	125	0.2			V
I _{GD}	Non-trigger gate current	V _{DM} =67%V _{DRM}	125	1.5			mA
R _{th(j-c)}	Thermal resistance Junction to case	D.C. Single side cooled, per chip. DC				0.052	°C/W
R _{th(c-w)}	Thermal resistance case to water	D.C. Single side cooled, per chip. (6L/min)				0.037	°C/W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		2500			V
F _m	Terminal connection torque(M12)			12.0		16.0	N·m
	Mounting torque(M8)			10.0		12.0	N·m
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
T _{water}	Water temperature	Water flow=6L/min		-		30	°C
-	Water Pressure loss					41	kPa
W _t	Weight					3220	g
Outline	M15						

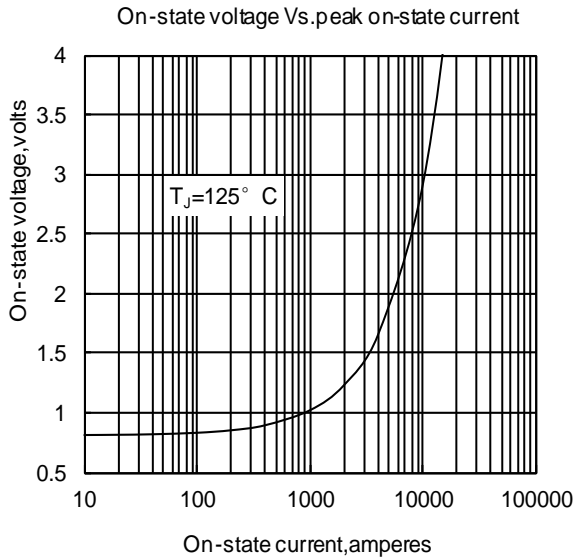


Fig1

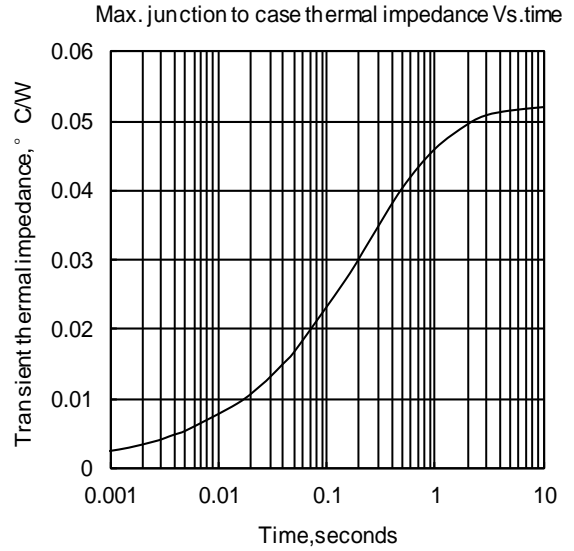


Fig2

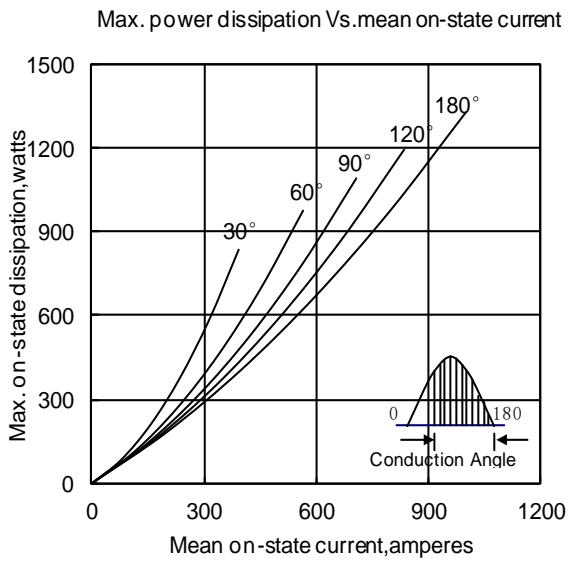


Fig3

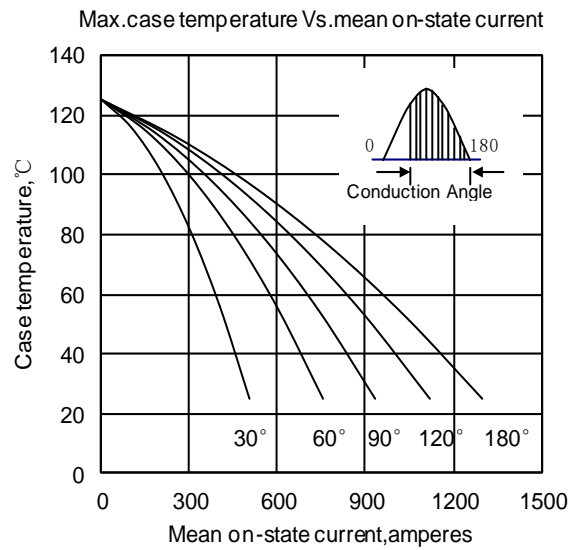


Fig4

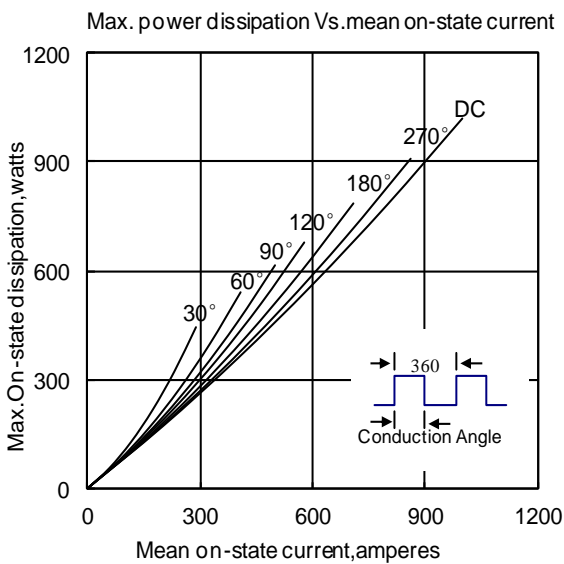


Fig5

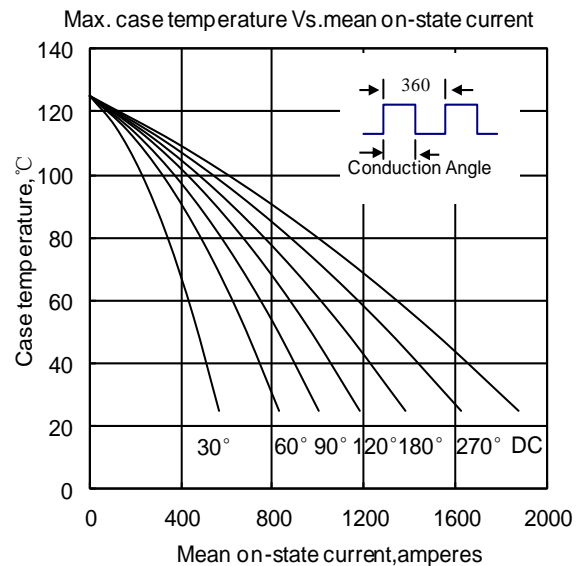


Fig6

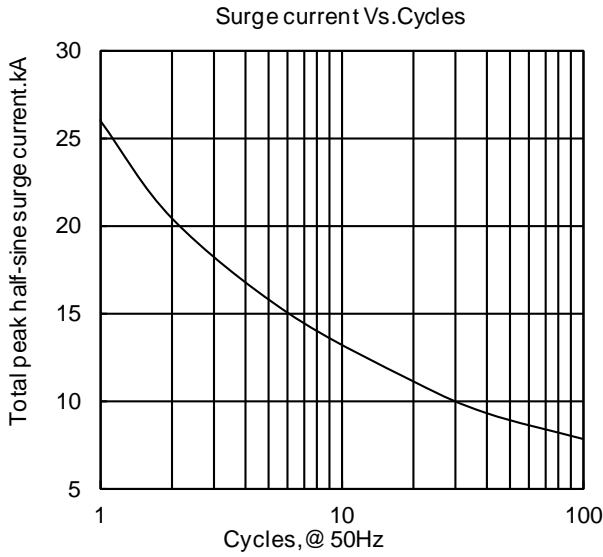


Fig7

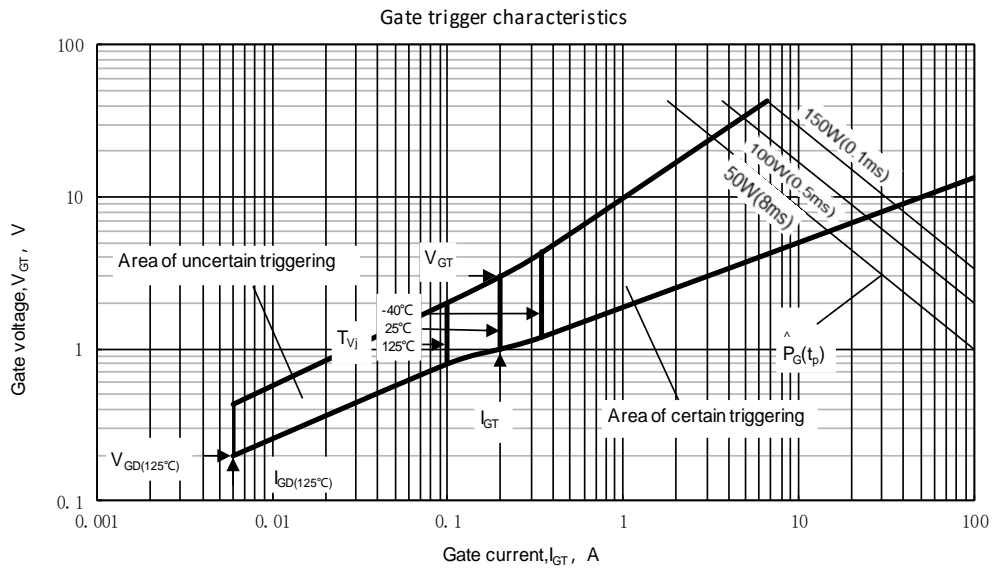


Fig8

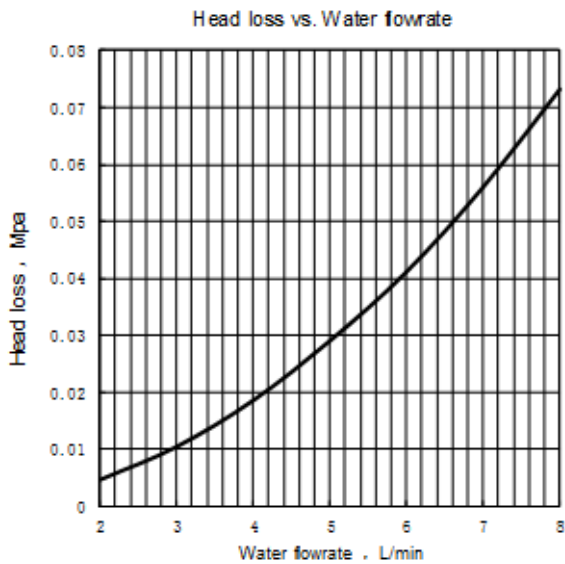


Fig9

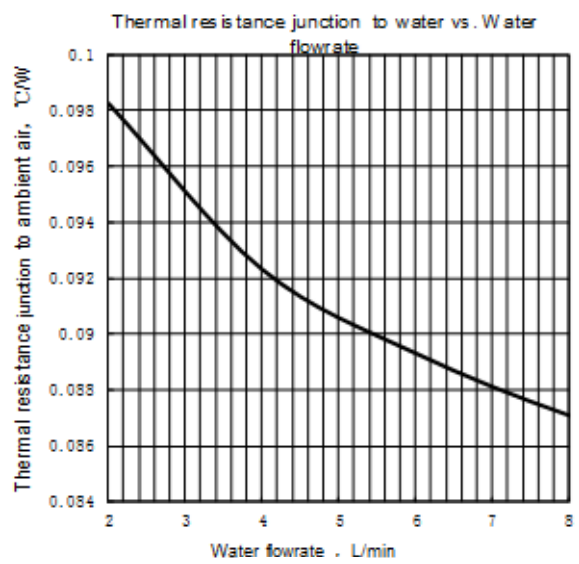
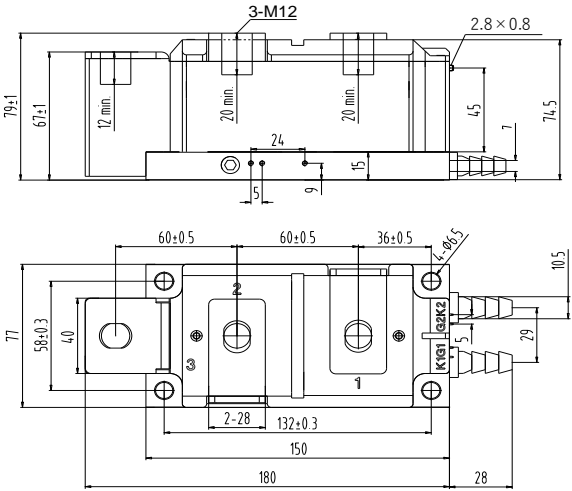
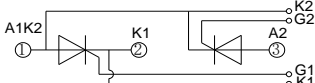


Fig. 10

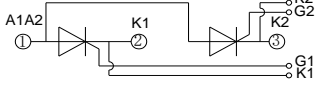
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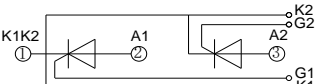
MD1000T**W



MR1000T**W



MC1000T**W



Unmarked dimensional tolerance : ±0.5mm

Nips reserves the right to change specifications without notice.