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	Mx400TH80W
1100V	1000V	Mx400TH100W
1300V	1200V	Mx400TH120W
1500V	1400V	Mx400TH140W
1700V	1600V	Mx400TH160W
1900V	1800V	Mx400TH180W

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 water cooled,T_C=55°C	125			400	A
$I_{T(RMS)}$	RMS on-state current					628	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			35	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			12.5	kA
I^2t	I^2t for fusing coordination					781	A^2s*10^3
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slope resistance					0.80	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1200A	25			1.90	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			0.8		3.0	V
I_H	Holding current			10		200	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	D.C. Single side cooled per chip				0.11	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink	D.C. Single side cooled per chip				0.04	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		2500			V
F_m	Terminal connection torque(M8)				12.0		N·m
	Mounting torque(M6)				6.0		N·m
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1055		g
Outline	M13						

On-state voltage Vs.peak on-state current

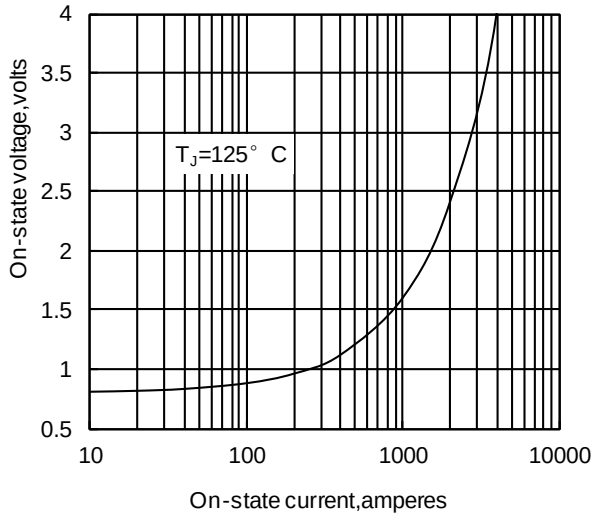


Fig1

Max. junction to case thermal impedance Vs.time

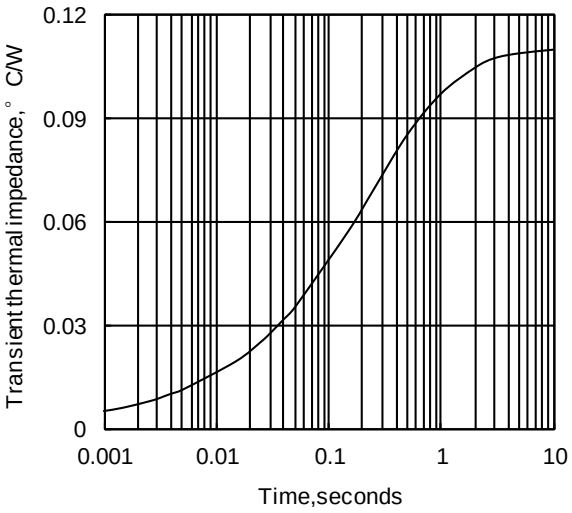


Fig2

Max. power dissipation Vs.mean on-state current

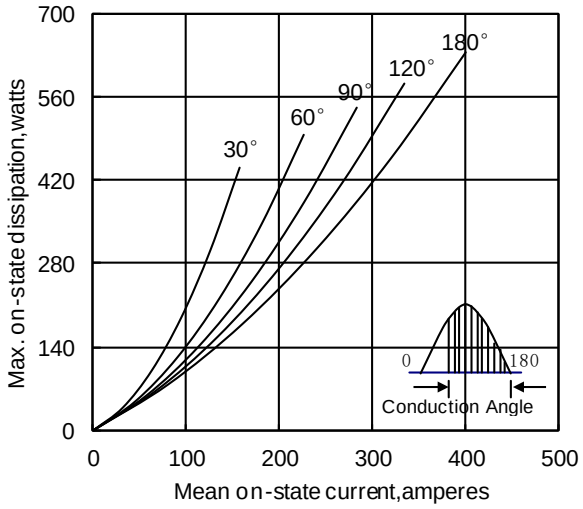


Fig3

Max.case temperature Vs.mean on-state current

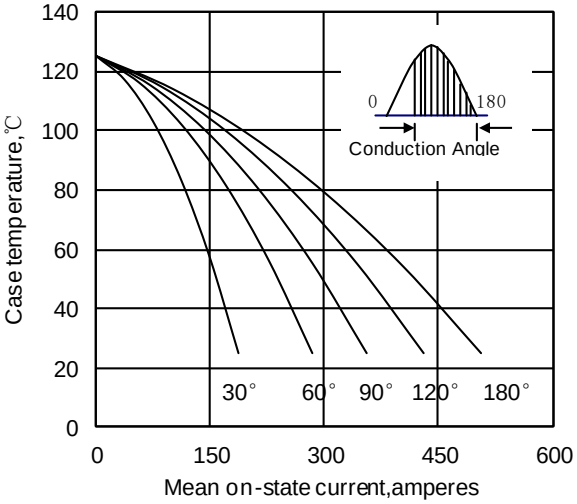


Fig4

Max. power dissipation Vs.mean on-state current

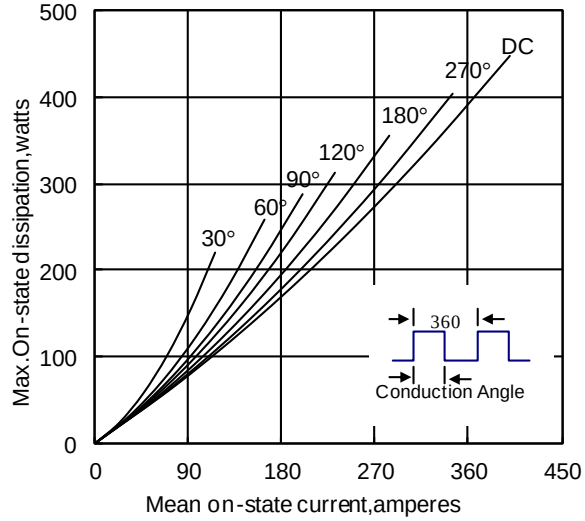


Fig5

Max. case temperature Vs.mean on-state current

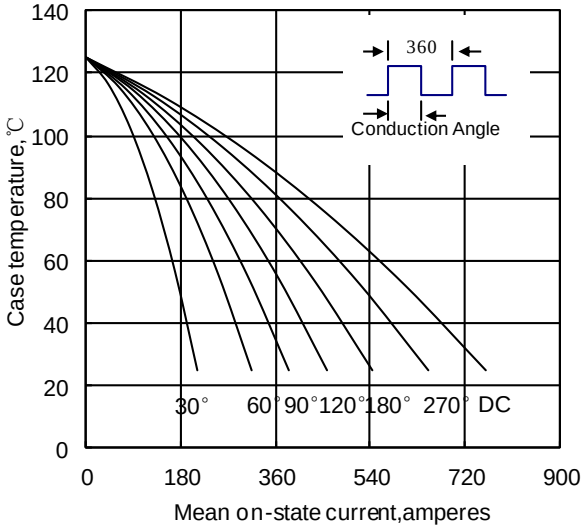


Fig6

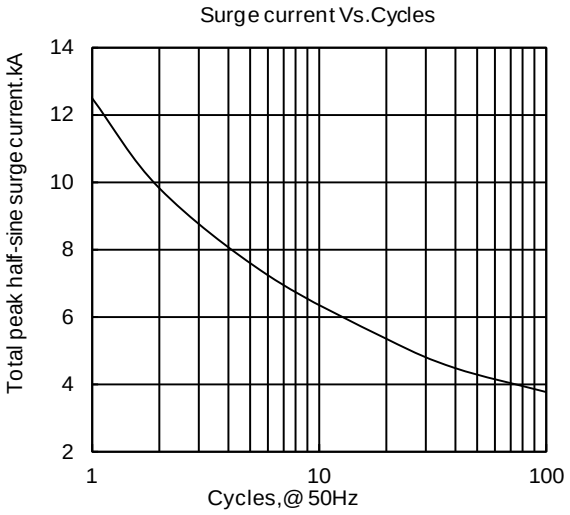


Fig7

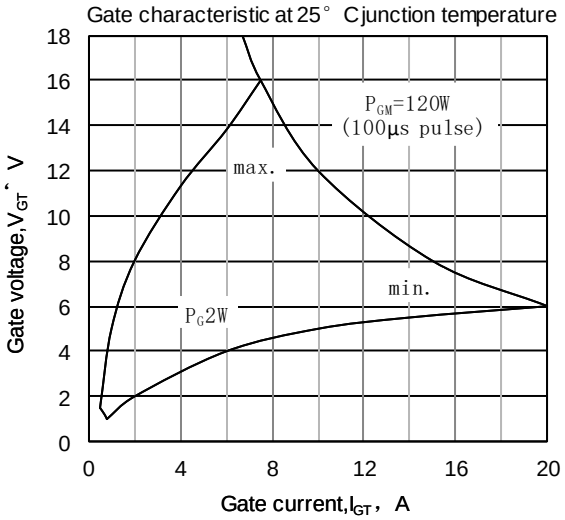


Fig8

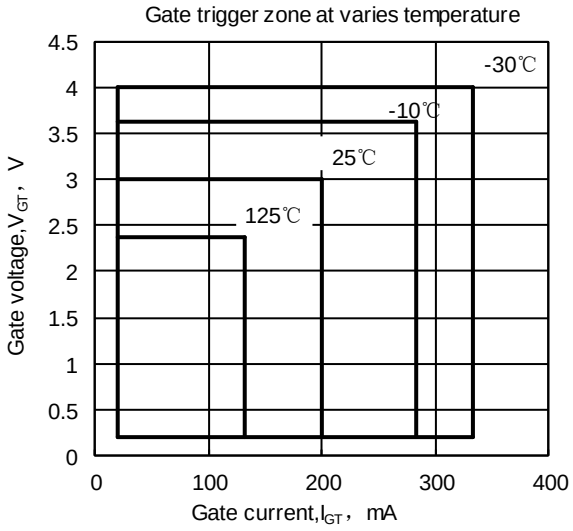
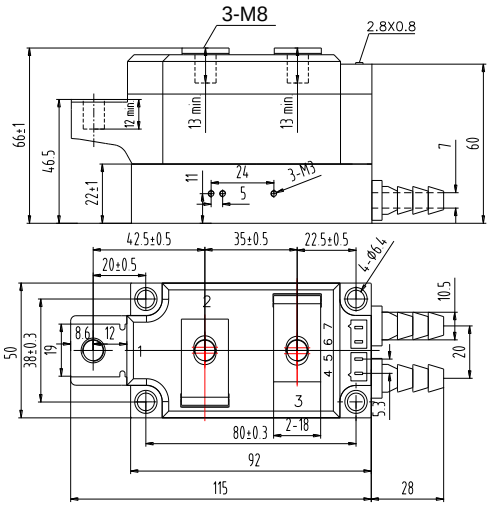


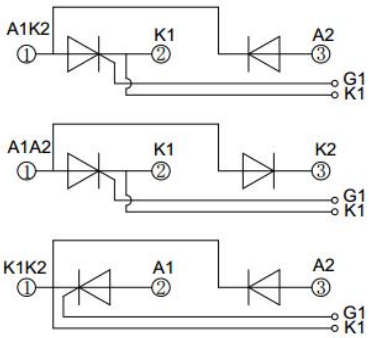
Fig9



MD400TH**W

MR400TH**W

MC400TH**W



Unmarked dimensional tolerance：±0.5mm

NIps reserves the right to change specifications without notice.