Features：

- Isolated mounting base 3000V~
- Solder joint 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	MD160TH80S
1100V	1000V	MD160TH100S
1300V	1200V	MD160TH120S
1500V	1400V	MD160TH140S
1700V	1600V	MD160TH160S
1900V	1800V	MD160TH180S

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, T_c=85°C	125			160	A
$I_{T(RMS)}$	RMS on-state current		125			251	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			3.8	kA
I^2t	I^2t for fusing coordination					72.2	A^2s*10^3
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slope resistance					1.50	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=480A	25			1.80	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t_r≤0.5μs Repetitive	125			200	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			0.6		2.5	V
I_H	Holding current			10		250	mA
I_L	Latching current					1000	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				0.17	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3000			V
F_m	Terminal connection torque(M6)			3.5		5.0	N·m
	Mounting torque(M6)			3.5		5.0	N·m
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				165		g
Outline	M17						

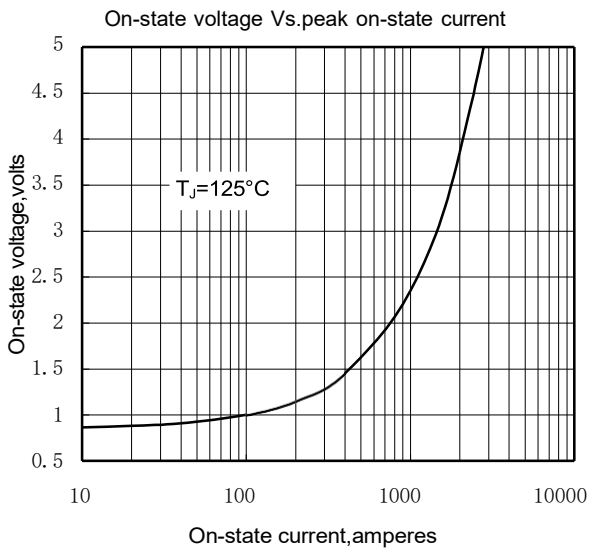


Fig1

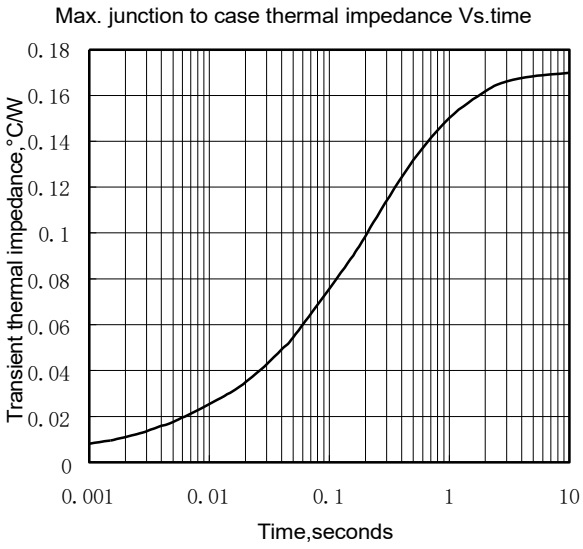


Fig2

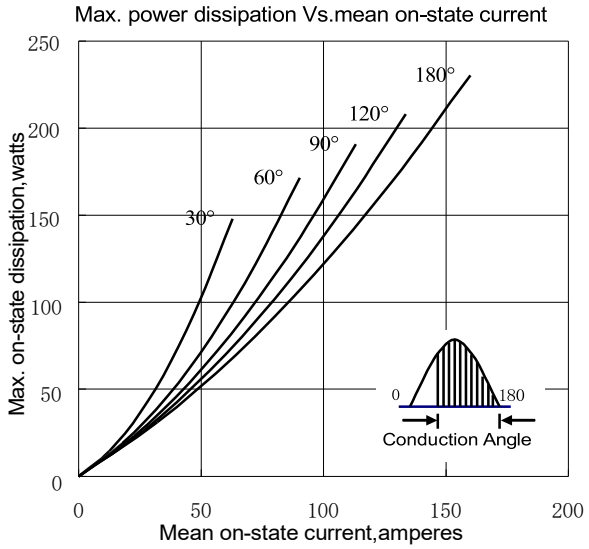


Fig3

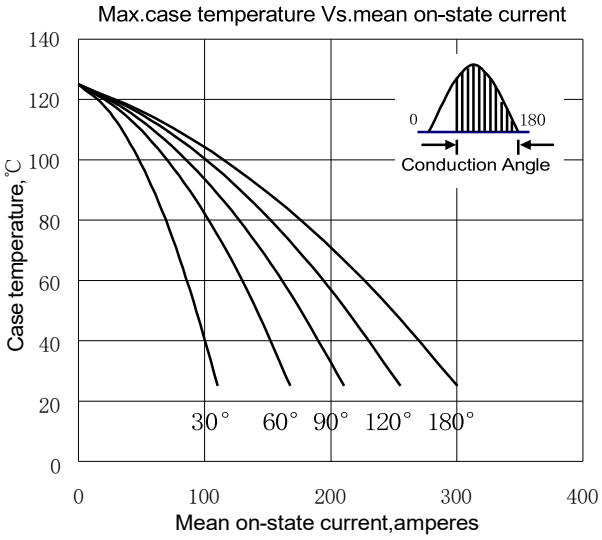


Fig4

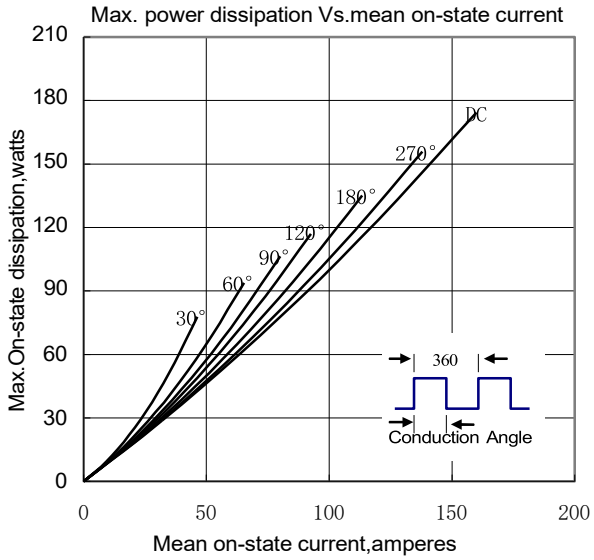


Fig5

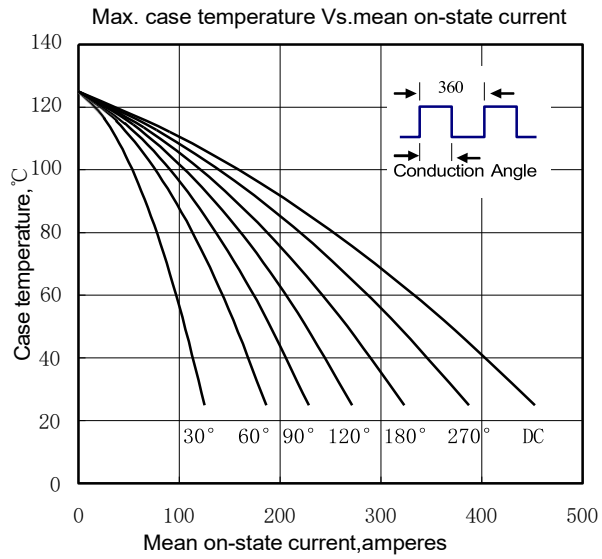
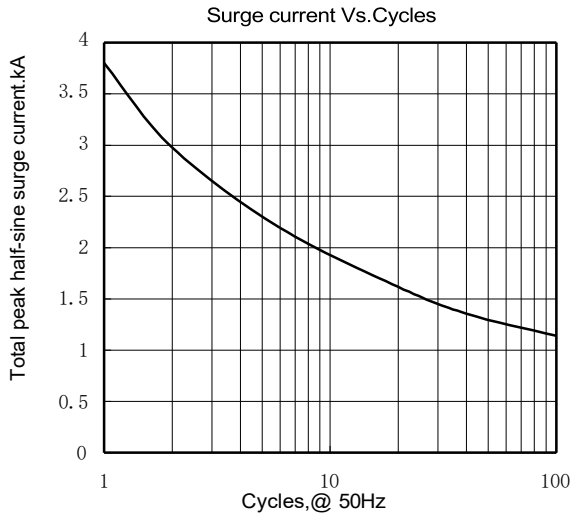


Fig6



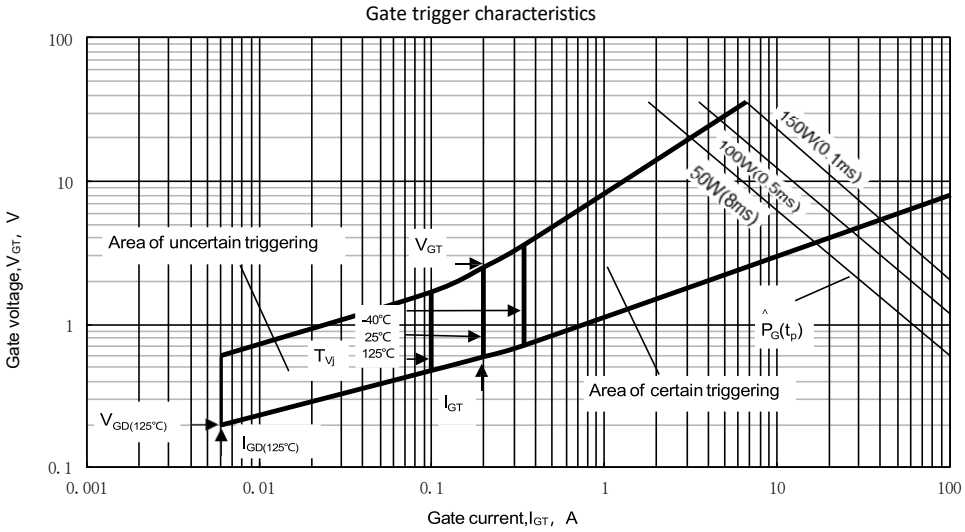
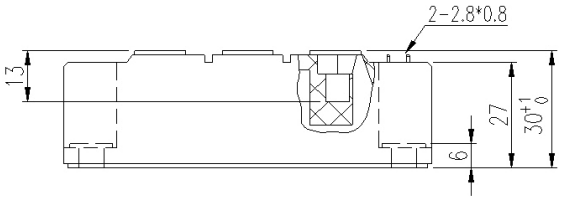
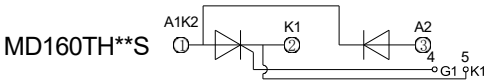
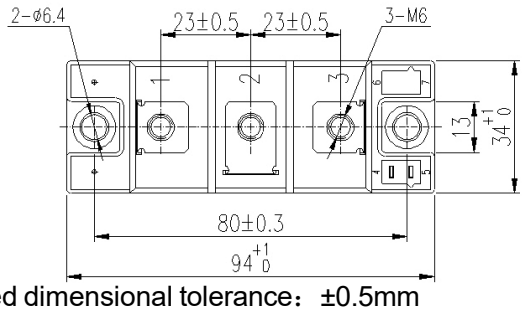


Fig. 8

Outline:







Unmarked dimensional tolerance：±0.5mm

NIPS reserves the right to change specifications without notice.