

**Features :**

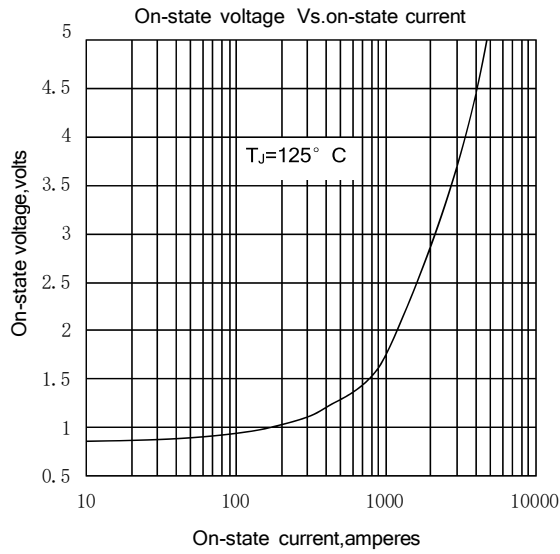
- Isolated mounting base 4000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

**Typical Applications :**

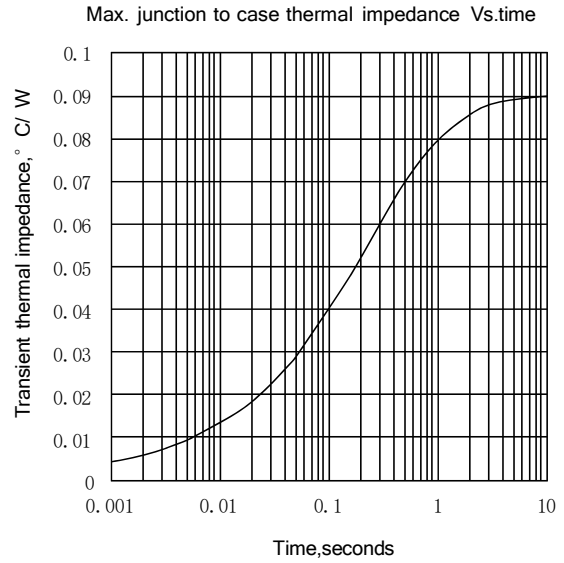
- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

V <sub>DSM</sub> , V <sub>RSM</sub>	V <sub>DRM</sub> , V <sub>RRM</sub>	品名
2700V	2600V	Mx300TH260
2900V	2800V	Mx300TH280
3100V	3000V	Mx300TH300
3300V	3200V	Mx300TH320
3500V	3400V	Mx300TH340
3700V	3600V	Mx300TH360

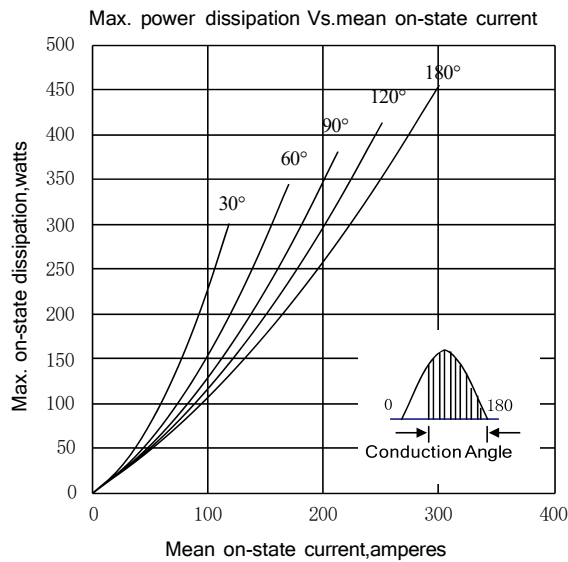
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>J</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Single side cooled, T <sub>C</sub> =85°C	125			300	A
I <sub>T(RMS)</sub>	RMS on-state current					471	A
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			55	mA
I <sub>TSM</sub>	Surge on-state current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine	125			7.2	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination		125			259	10 <sup>3</sup> A <sup>2</sup> s
V <sub>TO</sub>	Threshold voltage		125			0.85	V
r <sub>T</sub>	On-state slope resistance					0.90	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =900A	25			2.45	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t <sub>r</sub> ≤ 0.5μs Repetitive	125			200	A/μs
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	30		180	mA
V <sub>GT</sub>	Gate trigger voltage			0.8		2.5	V
I <sub>H</sub>	Holding current			10		200	mA
I <sub>L</sub>	Latching current					1000	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			0.20	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	D.C. Single side cooled per chip				0.09	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.04	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M.S, t=1min, I <sub>iso</sub> : 1mA(MAX)		4000			V
F <sub>m</sub>	Terminal connection torque(M10)			10		12	N·m
	Mounting torque(M6)			4.5		6	N·m
T <sub>vj</sub>	Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				1260		g
Outline	<b>M05</b>						



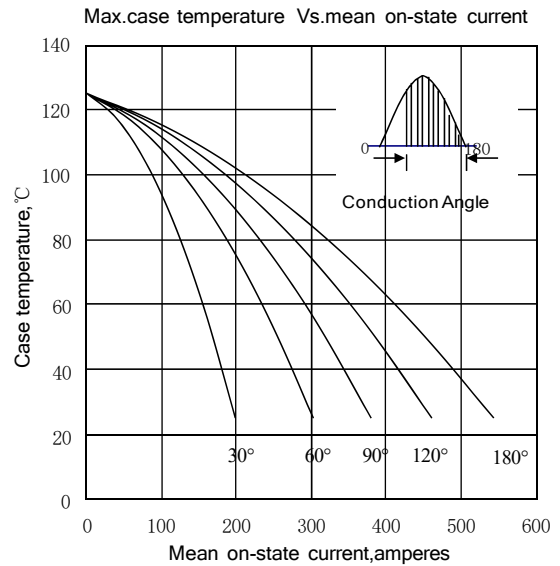
**Fig.1**



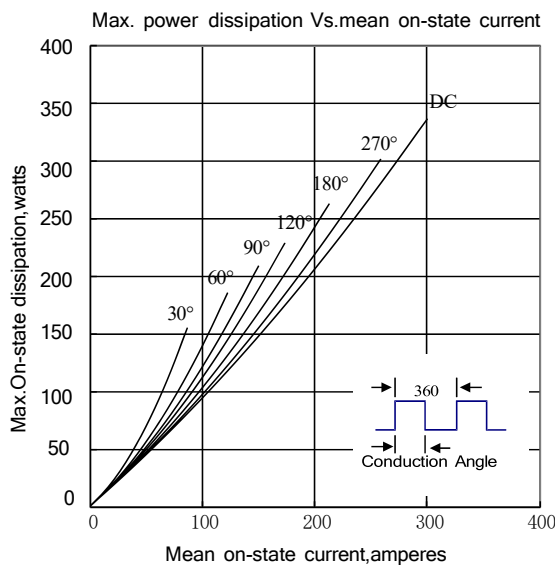
**Fig.2**



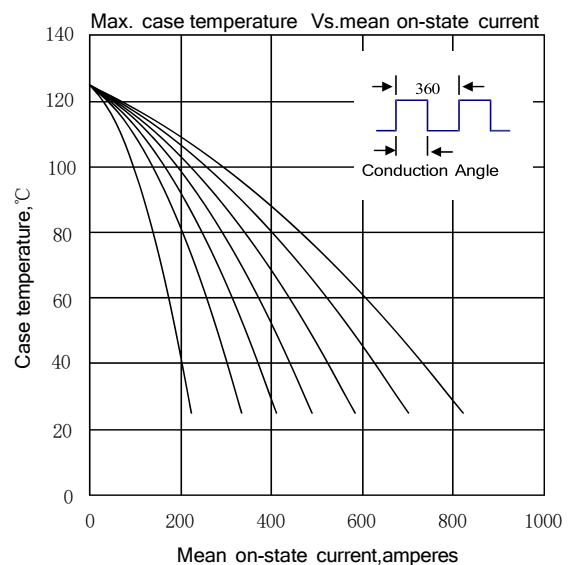
**Fig.3**



**Fig.4**



**Fig.5**



**Fig.6**

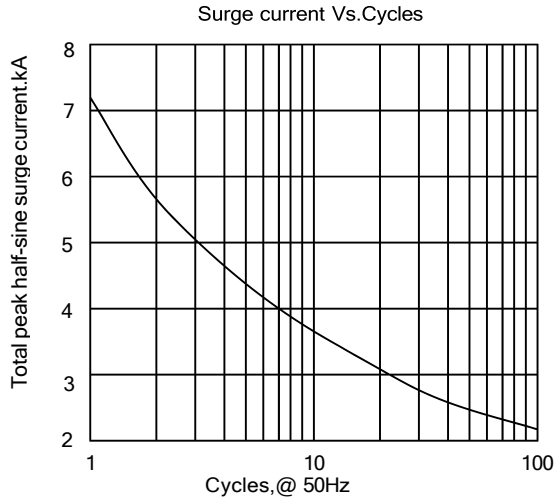


Fig. 7

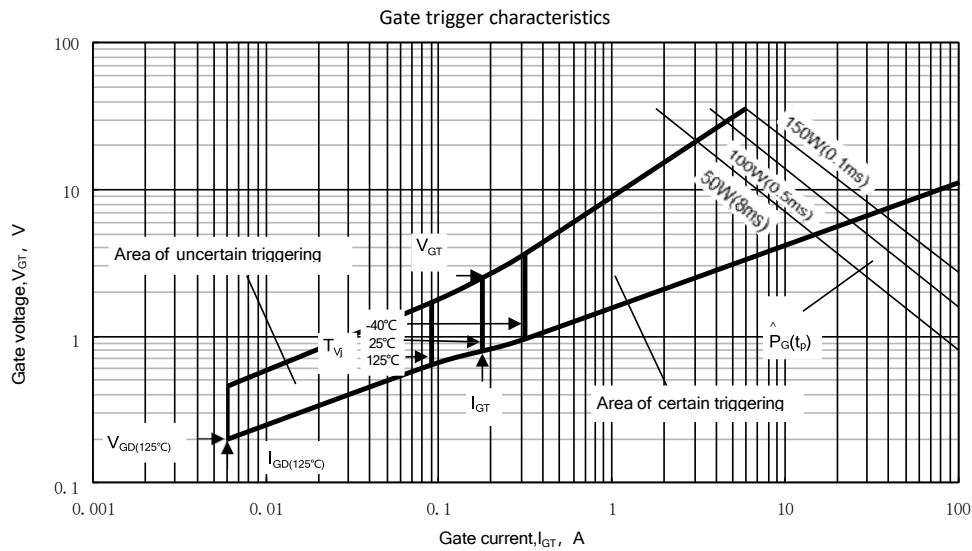
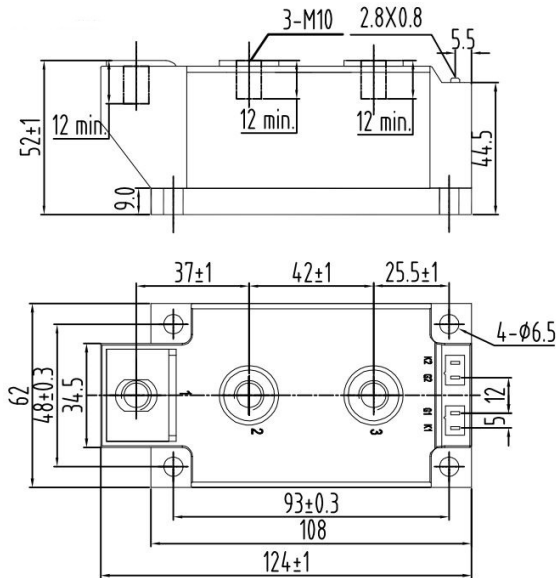
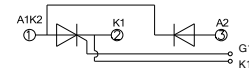


Fig. 8

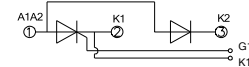
Outline:



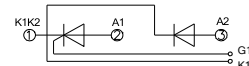
MD300TH\*\*



MR300TH\*\*



MC300TH\*\*



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

NIPS reserves the right to change specifications without notice.