

Features:

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

Typical Applications

- Inverter
- Inductive heating
- Chopper

V_{DSM}, V_{RSM}	V_{DRM}, V_{RRM}	品名
900V	800V	Mx250THF80C
1100V	1000V	Mx250THF100C
1250V	1200V	Mx250THF120C
1500V	1400V	Mx250THF140C
1700V	1600V	Mx250THF160C
1900V	1800V	Mx250THF180C

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min.	Typ.	Max.	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=85^{\circ}C$	125			250	A
$I_{T(RMS)}$	RMS on-state current					392	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			80	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	125			5.60	kA
I^2t	I^2t for fusing coordination					157	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage		125			1.30	V
r_T	On-state slope resistance					0.38	$m\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=900A$	25			2.23	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			800	$V/\mu s$
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	125			200	$A/\mu s$
tq	Circuit commutated turn-off time	$I_{TM}=300A, t_p=2000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$	125	20		40	μs
t_{rr}	Reverse recovery time	$I_{TM}=300A, t_p=2000\mu s,$ $-di/dt=20A/\mu s, V_R=50V$	125		5		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				0.100	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.040	$^{\circ}C/W$
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1min, I_{iso}:1mA(MAX)$		2500			V
F_m	Terminal connection torque(M10)				12.0		N·m
	Mounting torque(M6)				6.0		N·m
T_{vj}	Junction temperature			-40		125	$^{\circ}C$
T_{stg}	Stored temperature			-40		125	$^{\circ}C$
W_t	Weight				1500		g
Outline	M06						

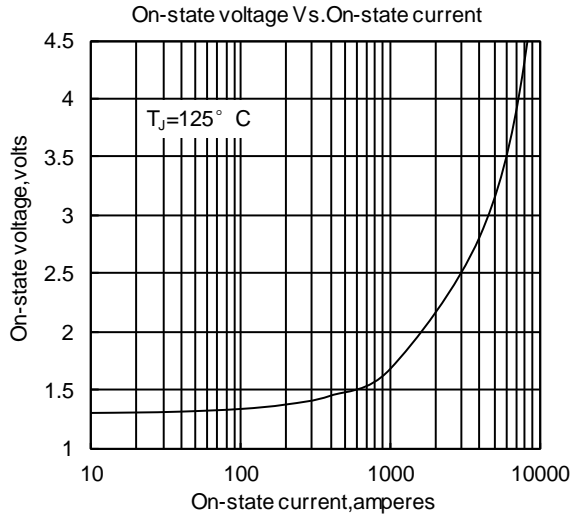


Fig.1

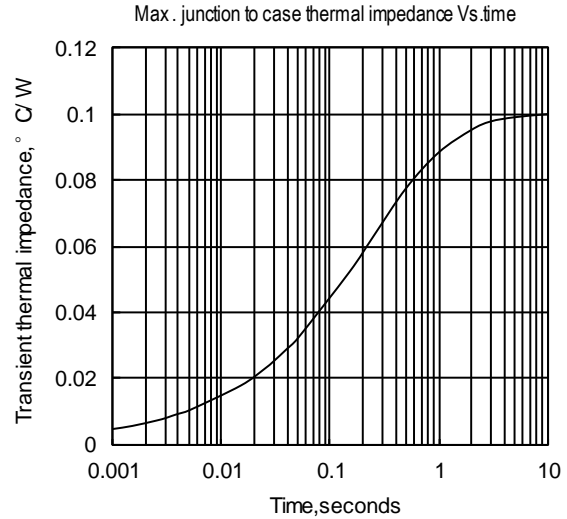


Fig.2

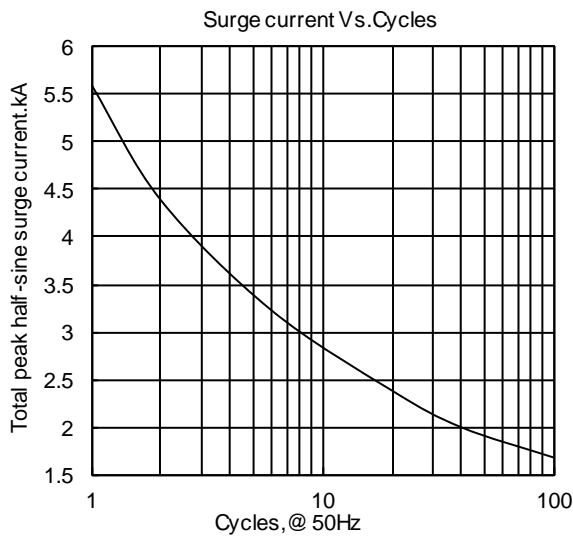


Fig.3

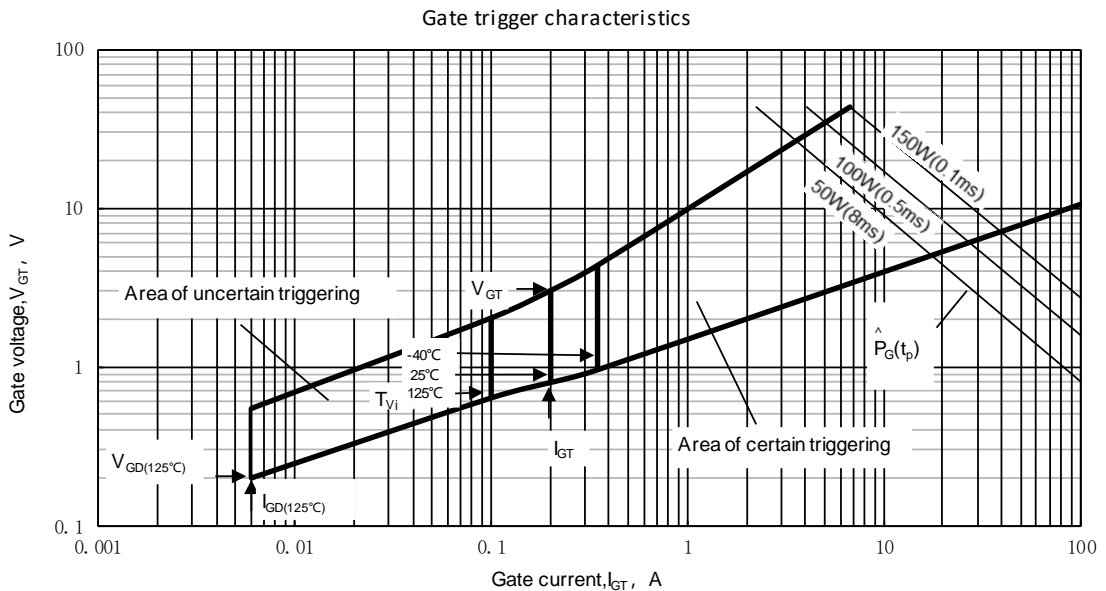
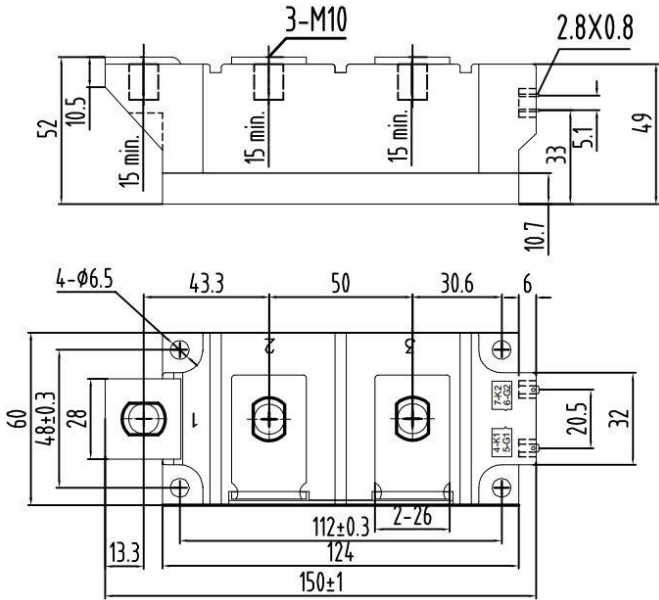


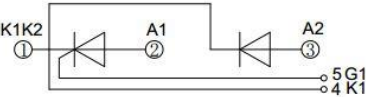
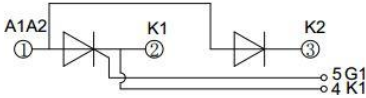
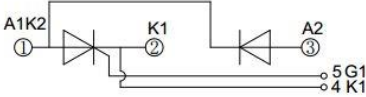
Fig.4



MD250THF**C

MR250THF**C

MC250THF**C



Unmarked dimensional tolerance : ±0.5mm

Nlps reserves the right to change specifications without notice.