

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	Mx300THF80C
1100V	1000V	Mx300THF100C
1300V	1200V	Mx300THF120C
1500V	1400V	Mx300THF140C
1700V	1600V	Mx300THF160C
1900V	1800V	Mx300THF180C

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			300	A	
I _{T(RMS)}	RMS on-state current					417	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	125			7.3	kA	
I ² t	I ² t for fusing coordination	V _R =60%V _{RRM}				266	A ² s*10 ³	
V _{TO}	Threshold voltage		125			0.90	V	
r _T	On-state slope resistance					0.74	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =900A	25			2.20	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			200	A/μs	
Q _{rr}	Recovery charge	I _{TM} =300A, t _p =4000μs, di/dt=-20A/μs, V _R =100V	125		650		μC	
t _q	Circuit commutated turn-off time	I _{TM} =300A, t _p =4000μs, V _R =100V dv/dt=30V/μs, di/dt=-20A/μs	125	20		40	μs	
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25			30	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				0.065	°C/W	
R _{th(c-h)}	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.020	°C/W	
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)			2500		V	
F _m	Terminal connection torque(M10)				10.0	12.0	N·m	
	Mounting torque(M6)				4.5	6.0	N·m	
T _{vj}	Junction temperature				-40	125	°C	
T _{slg}	Stored temperature				-40	125	°C	
W _t	Weight					1490	g	
Outline	M06							

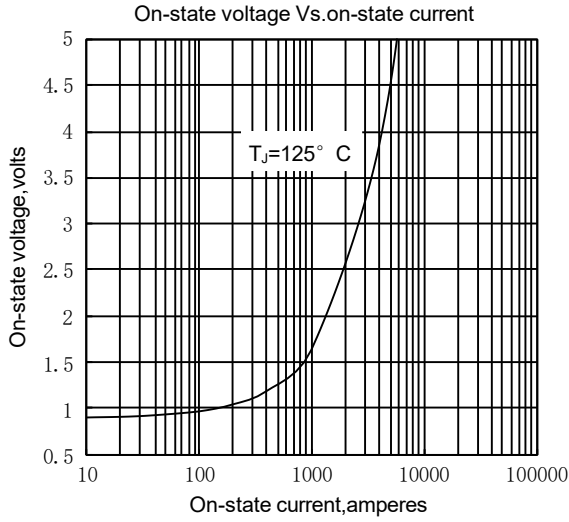


Fig.1

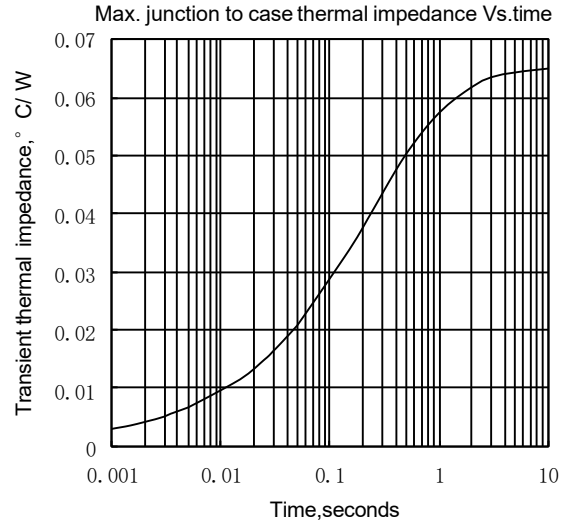


Fig.2

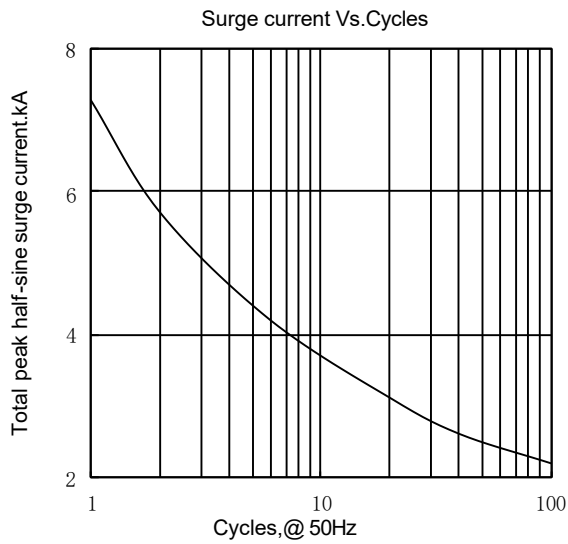


Fig.3

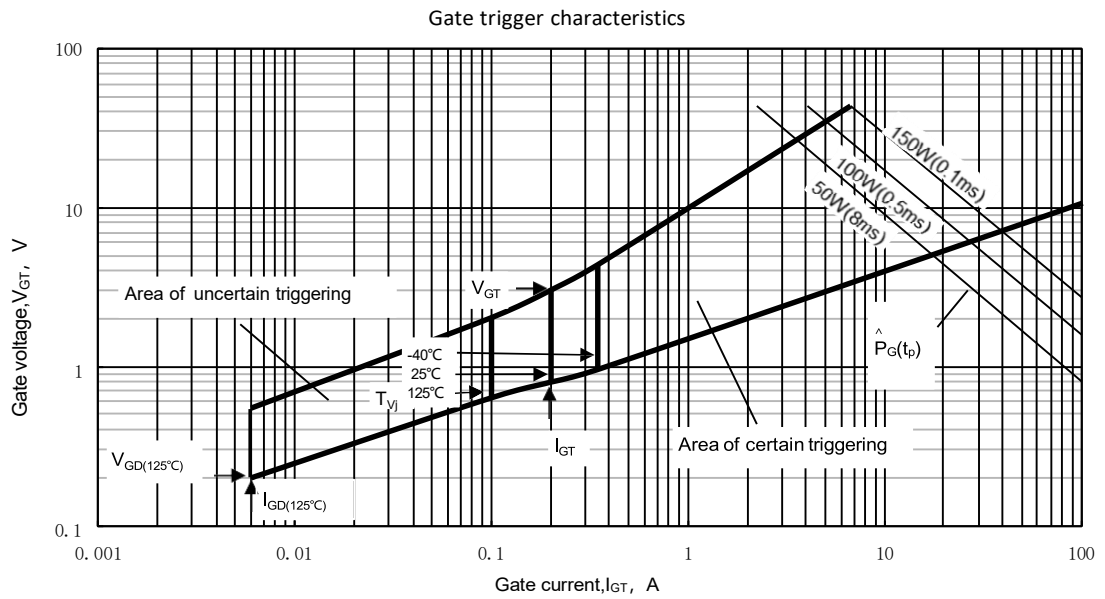
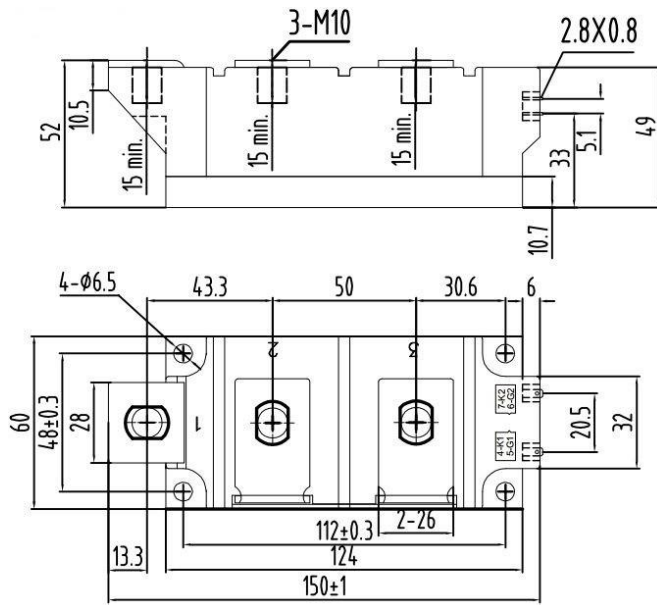


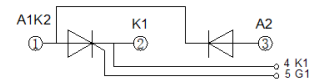
Fig.4

Outline:

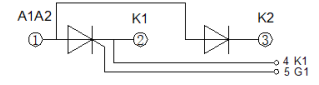


Unmarked dimensional tolerance: ± 0.5mm

MD300THF**C



MR300THF**C



MC300THF**C

