

Features :

- Non-Isolated.Mounting base as anode or cathode terminal
- Pressure contact technology with Increased power cycling capability
- Low on-state voltage drop

Typical Applications

- Welding Power Supply
- Various DC Power supplies
- DC supply for PWM inverter

V _{DSM} ,V _{RSM}	V _{DRM} ,V _{RRM}	Type
900V	800V	Mx250TH80N*
1100V	1000V	Mx250TH100N*
1300V	1200V	Mx250TH120N*
1500V	1400V	Mx250TH140N*
1700V	1600V	Mx250TH160N*
1900V	1800V	Mx250TH180N*

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 =90°C	125			250	A
I _{T(RMS)}	RMS on-state current					393	A
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			20	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			6.7	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{RRM}				224	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.80	V
r _T	On-state slope resistance					1.02	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =750A	25			1.65	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		150	mA
V _{GT}	Gate trigger voltage			0.7		2.5	V
I _H	Holding current			10		180	mA
V _{GD}	Non-trigger gate voltage	At 67%V _{DRM}	125	0.2			V
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled per chip				0.100	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink	Single side cooled per chip				0.040	°C/W
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				590		g
Outline	M11						

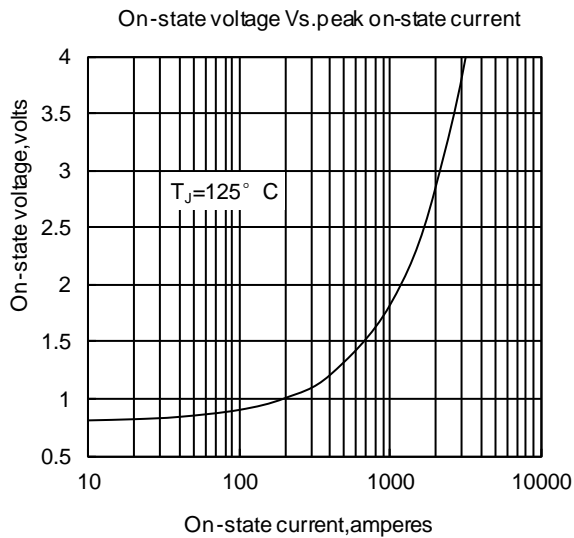


Fig1

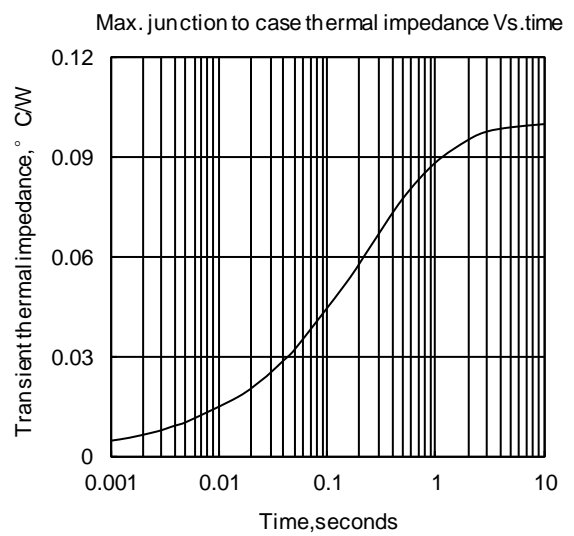


Fig2

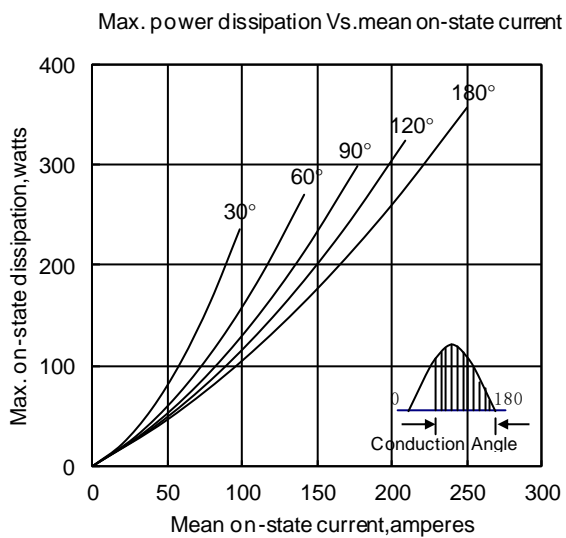


Fig3

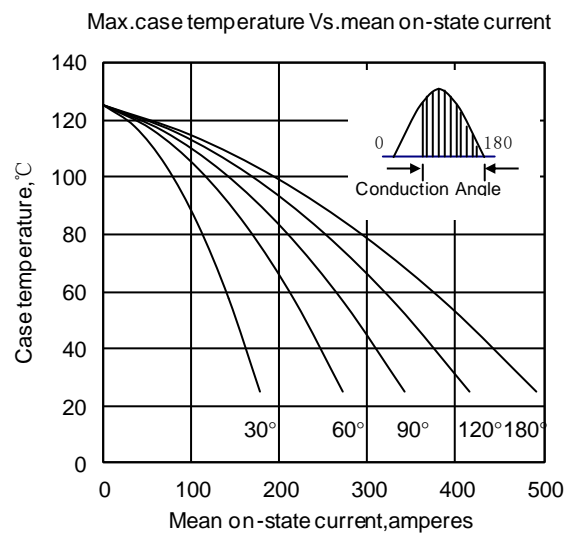


Fig4

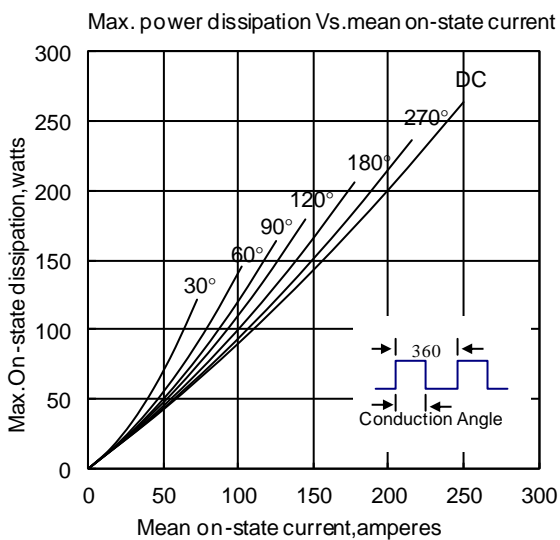


Fig5

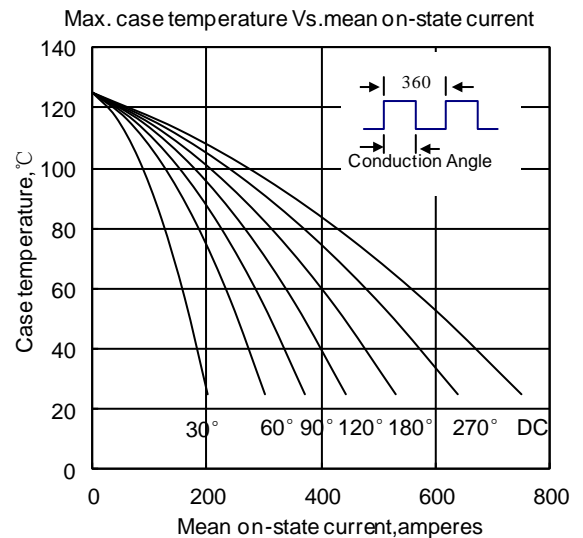


Fig6

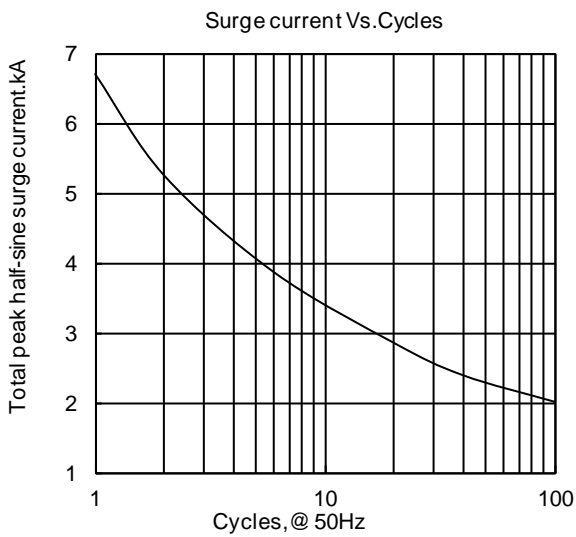


Fig7

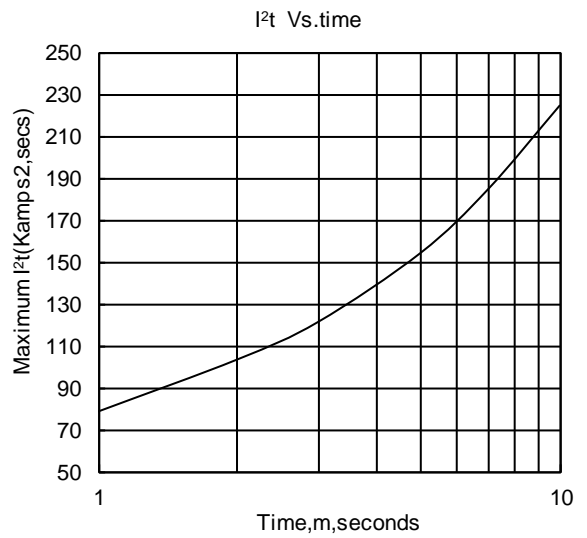


Fig8

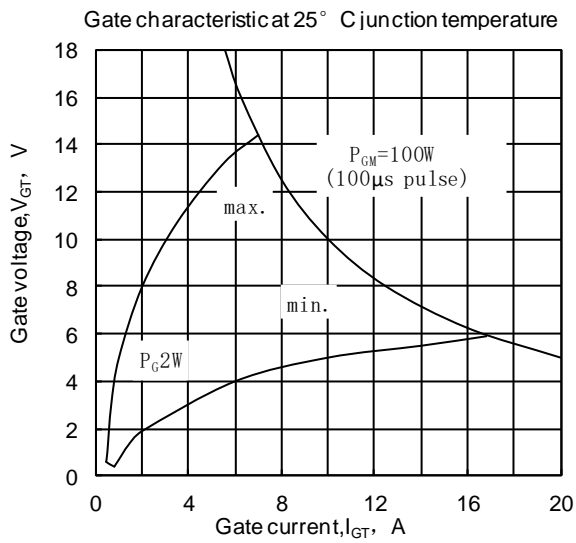


Fig9

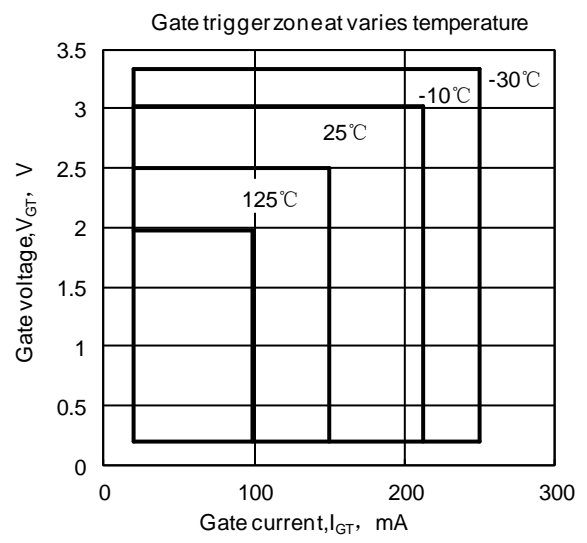
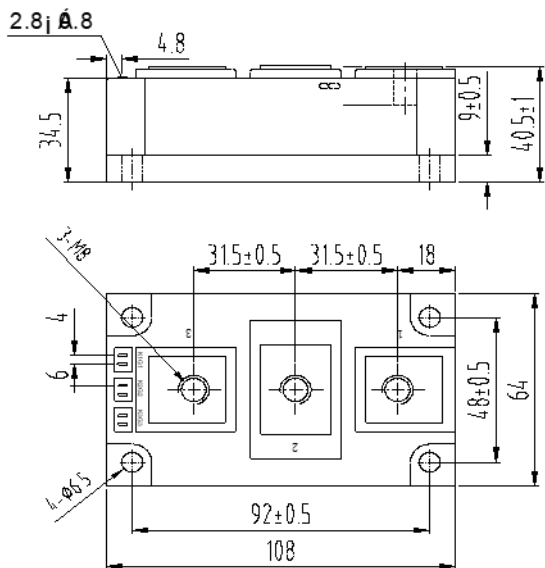
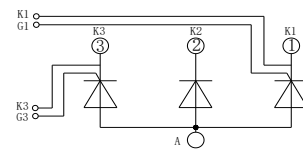


Fig10

Outline:



ME250TH*NK



MF250TH*NA

