



Features:

- Isolated mounting base 3000V~
- 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_{DSM}, V_{RSM}	V_{DRM}, V_{RRM}	Type & Outline
2100V	2000V	MTx250-20-413F3D
2300V	2200V	MTx250-22-413F3D
2600V	2500V	MTx250-25-413F3D

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	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		125			393	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			35	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			9.00	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				405	$A^2s \times 10^3$
V_{TO}	Threshold voltage		125			0.85	V
r_T	On-state slop resistance					0.80	$m\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=750A$	25			1.73	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			1000	V/ μ s
di/dt	Critical rate of rise of on-state current	$I_{TM}=500A$, Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	125			200	A/ μ s
I_{GT}	Gate trigger current		25	30		180	mA
V_{GT}	Gate trigger voltage	$V_A=12V$, $I_A=1A$		1.0		2.5	V
I_H	Holding current			20		150	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	Single side cooled per chip				0.120	$^{\circ}C / W$
$R_{th(c-h)}$	Thermal resistance case to heat sink	Single side cooled per chip				0.04	$^{\circ}C / W$
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min, $I_{iso}:1mA(MAX)$		3000			V
F_m	Thermal connection torque (M8)				12.0		$N \cdot m$
	Mounting torque (M6)				6.0		$N \cdot m$
T_{stg}	Stored temperature			-40		125	$^{\circ}C$
W_t	Weight				820		g
Outline				413F3D			

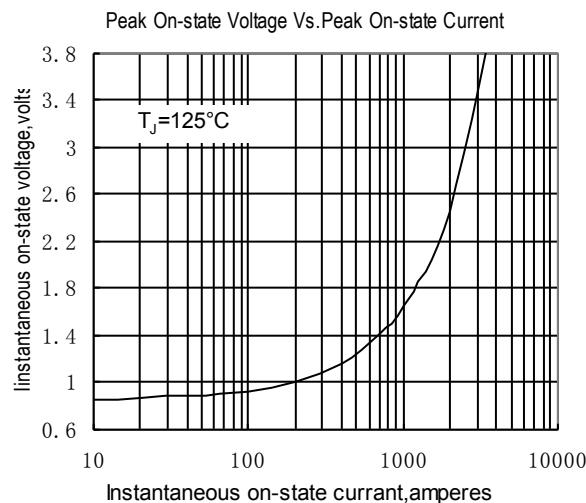


Fig.1

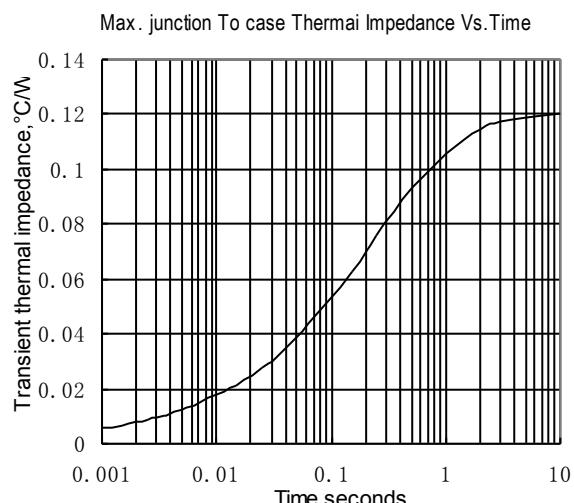


Fig.2

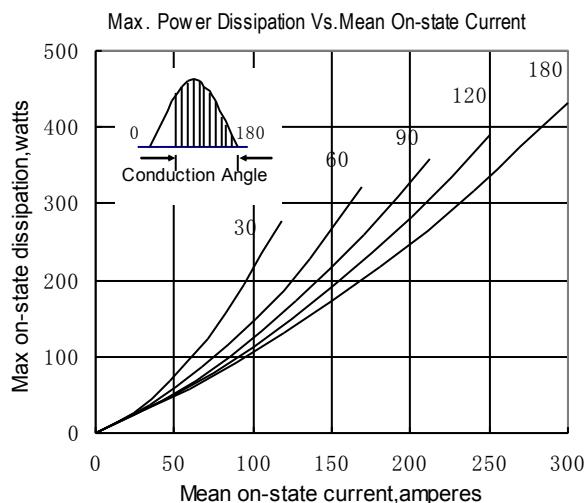


Fig.3

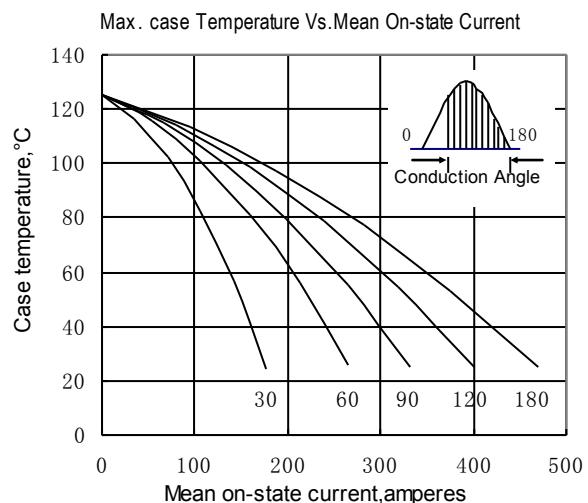


Fig.4

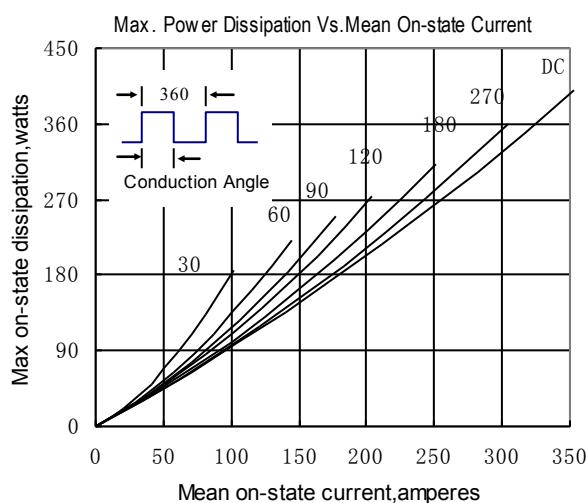


Fig.5

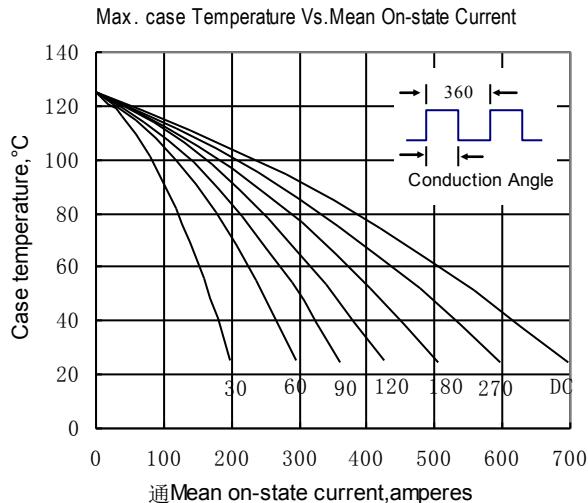


Fig.6

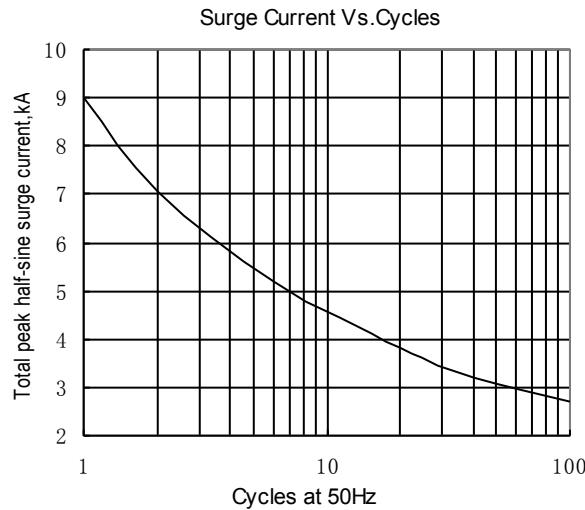


Fig.7

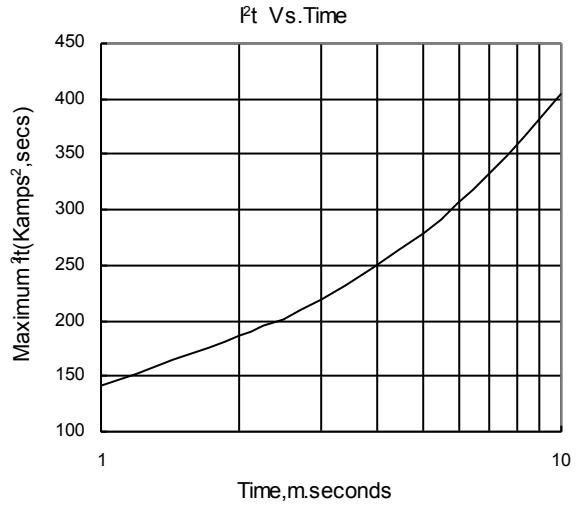


Fig.8

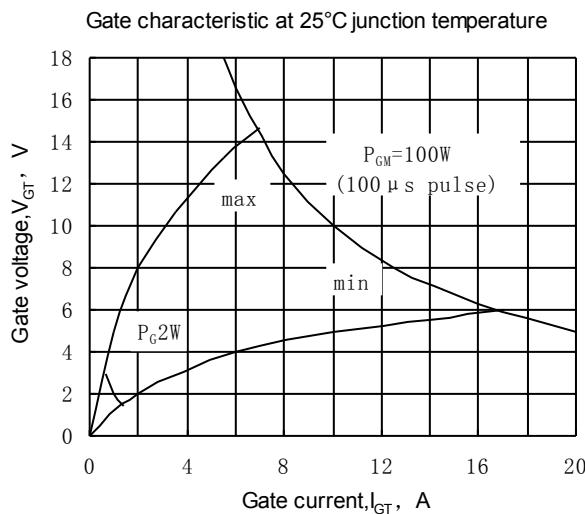


Fig.9

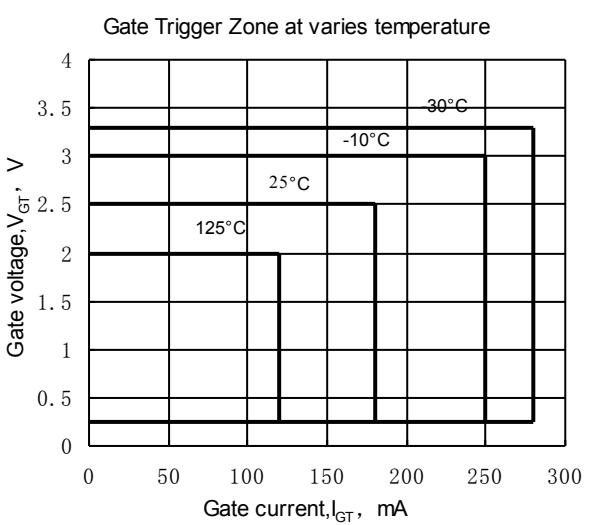
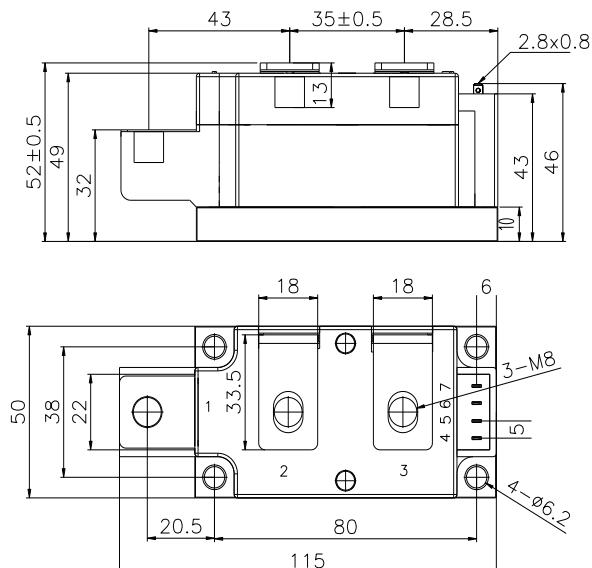


Fig.10

Outline:



413F3D