

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_{DSM}, V_{RSM}	V_{DRM}, V_{RRM}	品名
2700V	2600V	Mx400T260
2900V	2800V	Mx400T280
3100V	3000V	Mx400T300
3300V	3200V	Mx400T320
3500V	3400V	Mx400T340
3700V	3600V	Mx400T360

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}\text{C})$	VALUE			UNIT
				Min.	Typ.	Max.	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=85^{\circ}\text{C}$	125			400	A
$I_{T(RMS)}$	RMS on-state current					628	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			55	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=60\%V_{RRM}$	125			12.5	kA
I^2t	I^2t for fusing coordination					781.25	$\text{A}^2\text{s} \times 10^3$
V_{TO}	Threshold voltage		125			0.98	V
r_T	On-state slope resistance					0.88	mΩ
V_{TM}	Peak on-state voltage			$I_{TM}=1200\text{A}$		2.35	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu\text{s}$ Repetitive	125			200	A/μs
I_{GT}	Gate trigger current	$V_A=12\text{V}$, $I_A=1\text{A}$	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				0.054	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.024	°C /W
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}$, $I_{iso}=1\text{mA}(\text{MAX})$		4000			V
F_m	Terminal connection torque(M12)				14.0		N·m
	Mounting torque(M8)				12.0		N·m
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2240		g
Outline		M07					

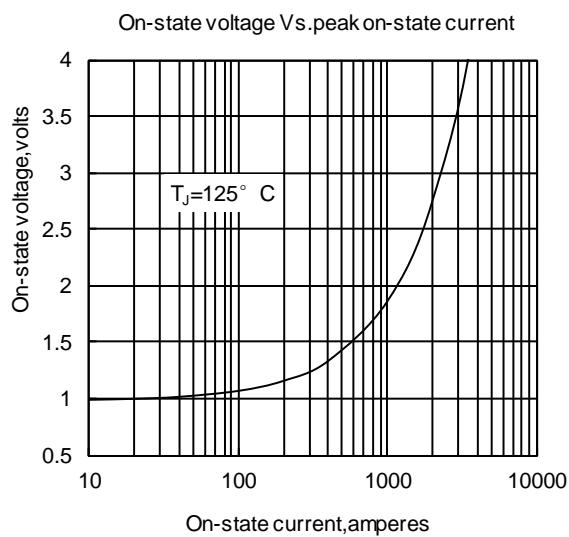


Fig. 1

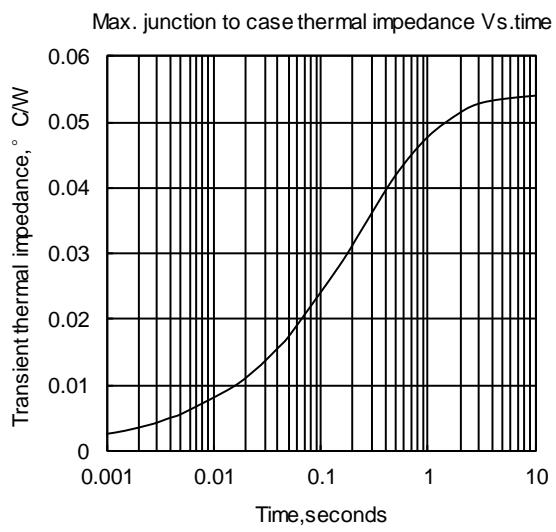


Fig. 2

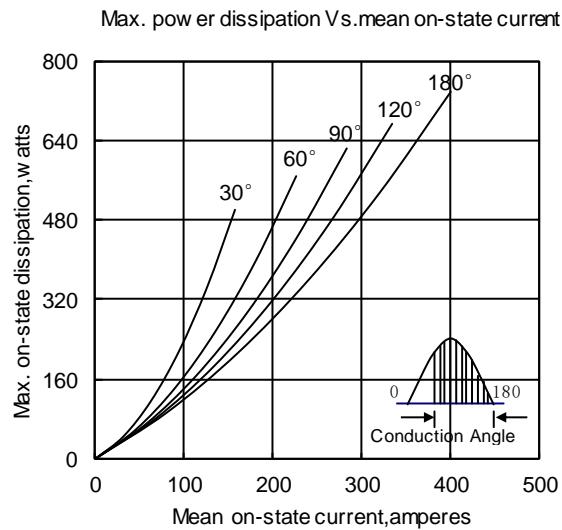


Fig. 3

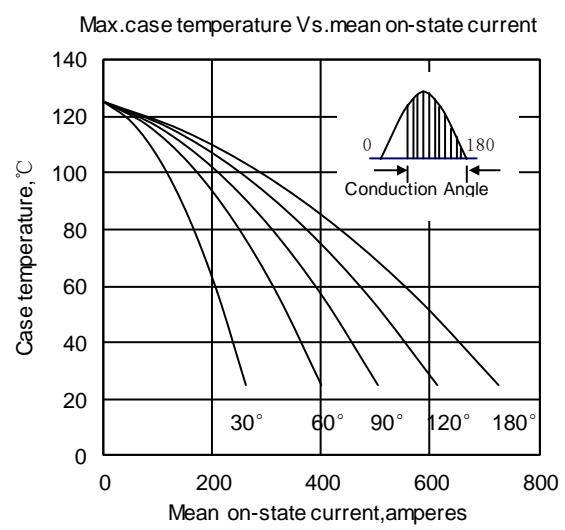


Fig. 4

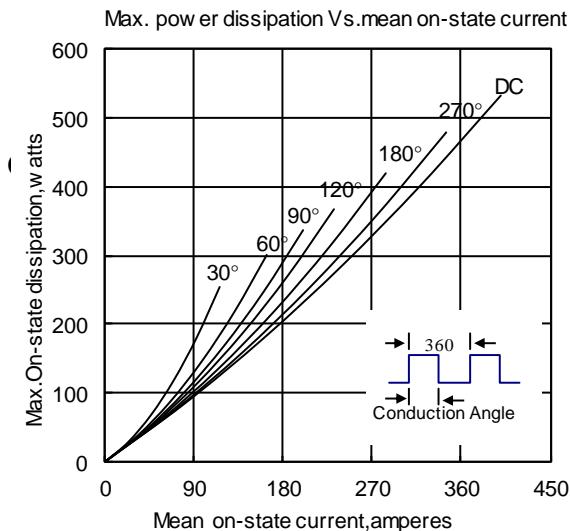


Fig. 5

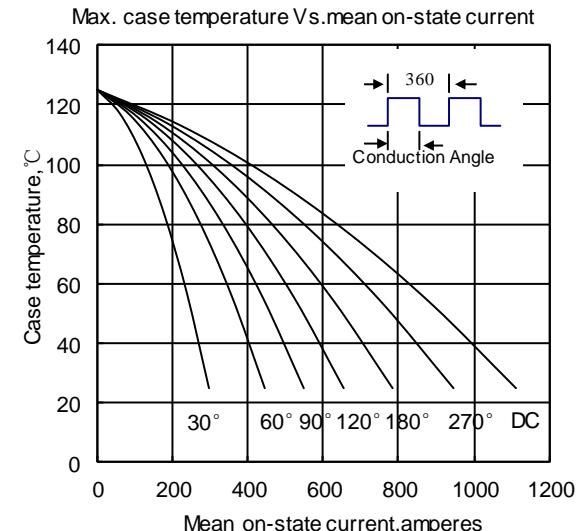


Fig. 6

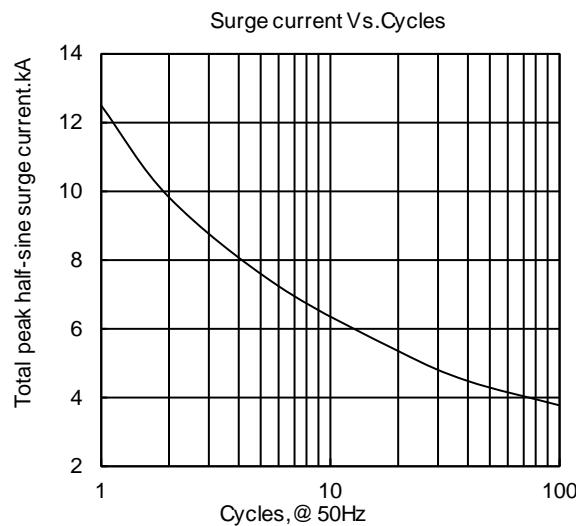


Fig. 7

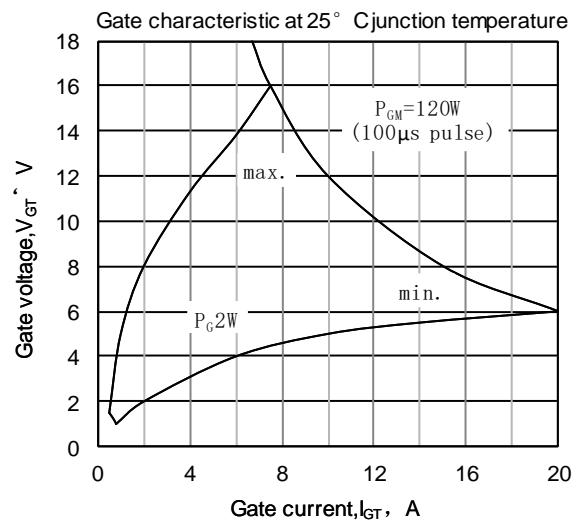


Fig 8

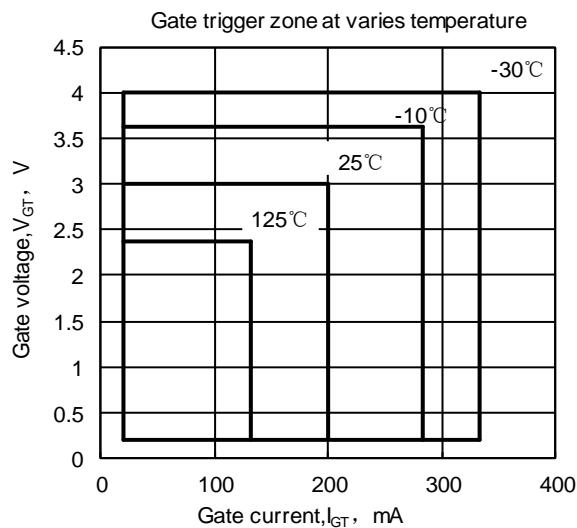
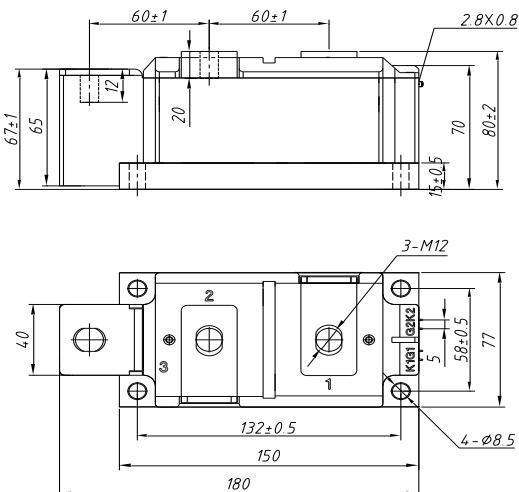


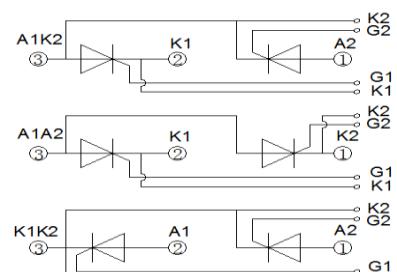
Fig 9



MD400T**

MR400T**

MC400T**

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