



AS ENERGI

Thyristor Modules MTx350



$I_{T(AV)}$ 350A
 V_{DRM}/V_{RRM} 1900~2500V
 I_{TSM} 11.0A $\times 10^3$
 I^2t 605A 2 S $\cdot 10^3$

Features:

- Isolated mounting base 3000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight savings

Typical Applications

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_f (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=85^\circ\text{C}$	125			350	A
$I_{T(RMS)}$	RMS on-state current		125			550	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM}= V_{DRM} \& V_{RRM} + 100\text{V}$ respectively	125	1900		2500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			45	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			11.0	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				605	A $^2\text{s} \cdot 10^3$
V_{TO}	Threshold voltage		125			0.84	V
r_T	On-state slop resistance					0.50	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1050\text{A}$	25			1.89	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	$I_{TM}=600\text{A}$, Gate source 1.5A $t_r \leq 0.5\mu\text{s}$ Repetitive	125			100	A/μs
I_{GT}	Gate trigger current		V _A =12V, I _A =1A	30		180	mA
V_{GT}	Gate trigger voltage			25	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				0.090	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I_{iso} :1mA(MAX)	3000				V
F_m	Thermal connection torque (M10)				12.0		N·m
	Mounting torque (M6)				6.0		N·m
T_{stg}	Stored temperature		-40			140	°C
W_t	Weight				1350		g
Outline							

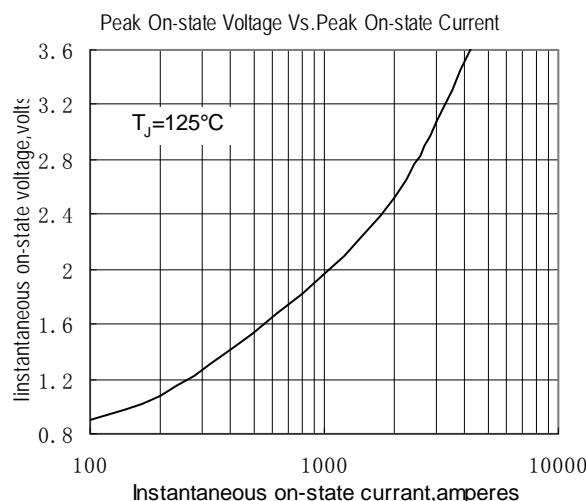


Fig.1

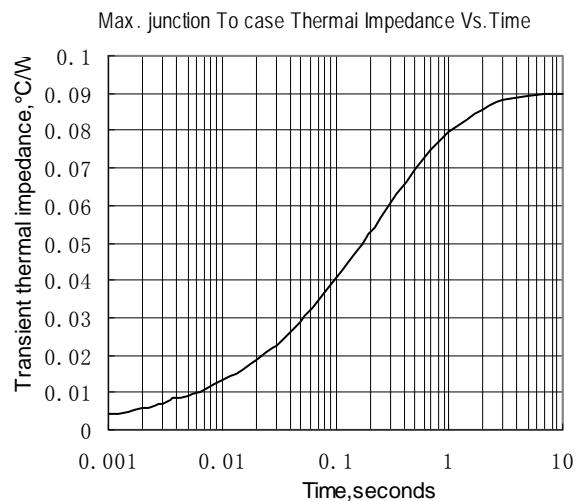


Fig.2

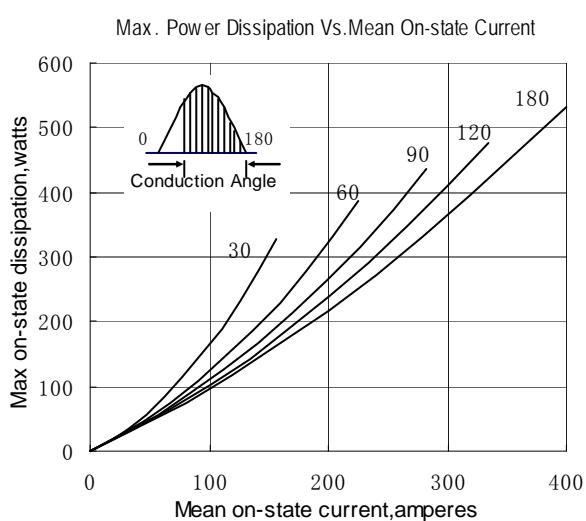


Fig.3

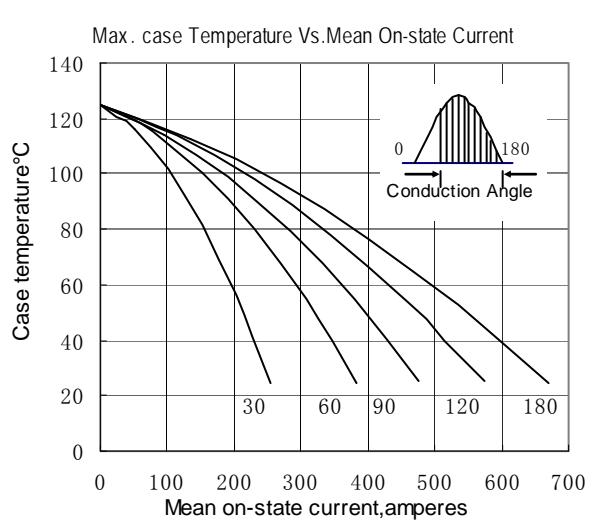


Fig.4

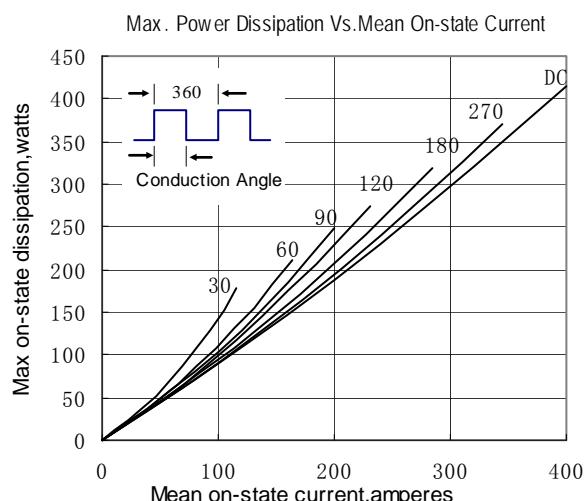


Fig.5

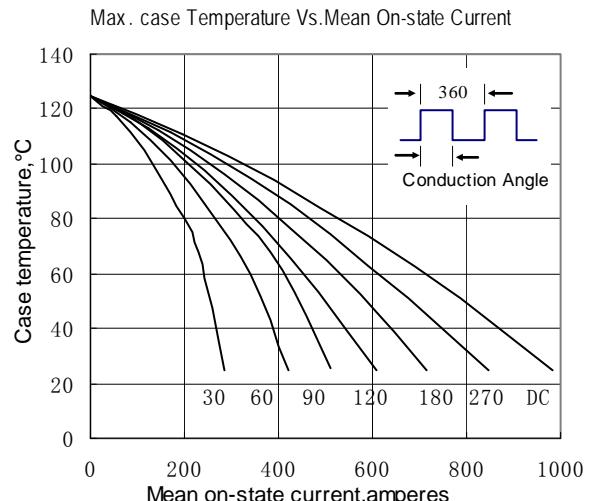


Fig.6

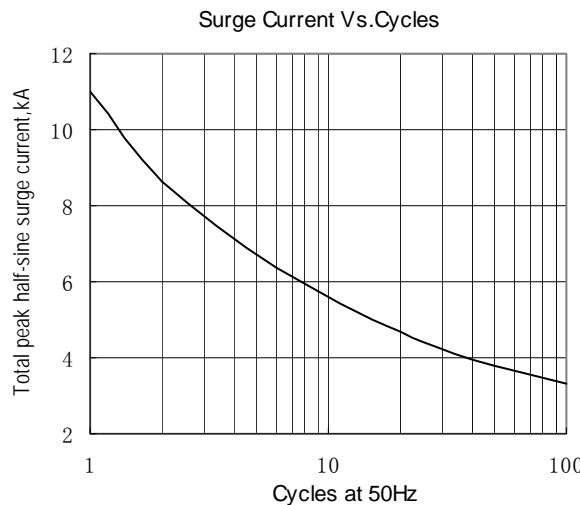


Fig.7

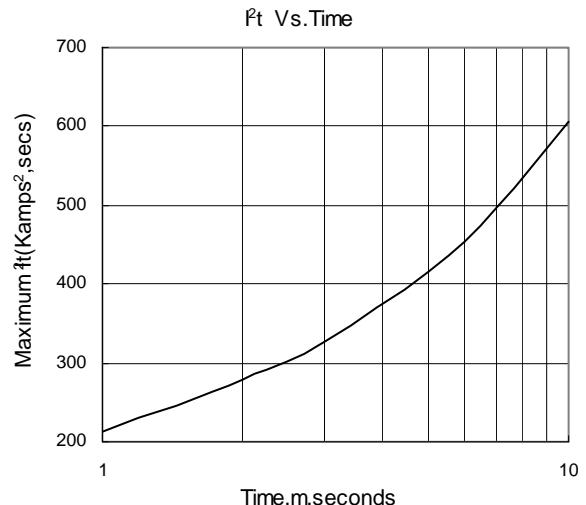


Fig.8

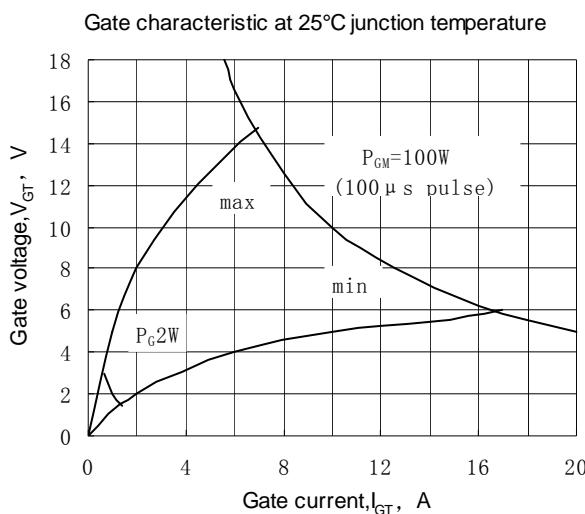


Fig.9

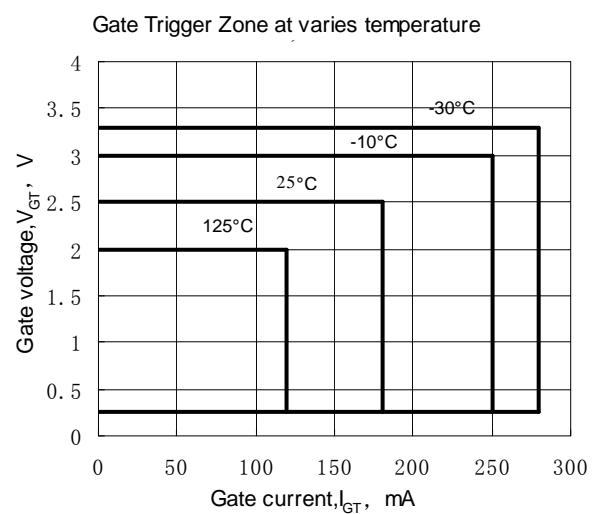


Fig.10

Outline:

