



AS ENERGI

Thyristor Modules MTx90



$I_{T(AV)}$ 90A
 V_{DRM}/V_{RRM} 600~1800V
 I_{TSM} 2.25 A $\times 10^3$
 I^2t 25.0A 2 S $\times 10^3$

Features:

- Isolated mounting base 2500V~
- 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	$T_f(^{\circ}C)$	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			90	A
$I_{T(RMS)}$	RMS on-state current		125			141	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$ respectively	125	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			2.25	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				25.0	A 2 s $\times 10^3$
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					3.01	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=270A$	25			1.70	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 $t_r \leq 0.5\mu s$ Repetitive	125			100	A/μs
I_{GT}	Gate trigger current		25	30		100	mA
V_{GT}	Gate trigger voltage	$V_A=12V$, $I_A=1A$		1.0		2.5	V
I_H	Holding current			20		120	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				0.280	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled				0.15	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min, $I_{iso}:1mA$ (MAX)	2500				V
F_m	Thermal connection torque(M5)				4.0		N·m
	Mounting torque(M6)				6.0		N·m
T_{stg}	Stored temperature		-40			125	°C
W_t	Weight				160		g
Outline							

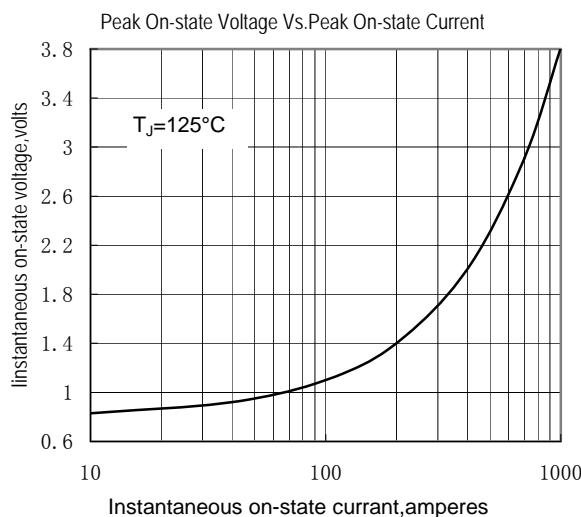


Fig.1

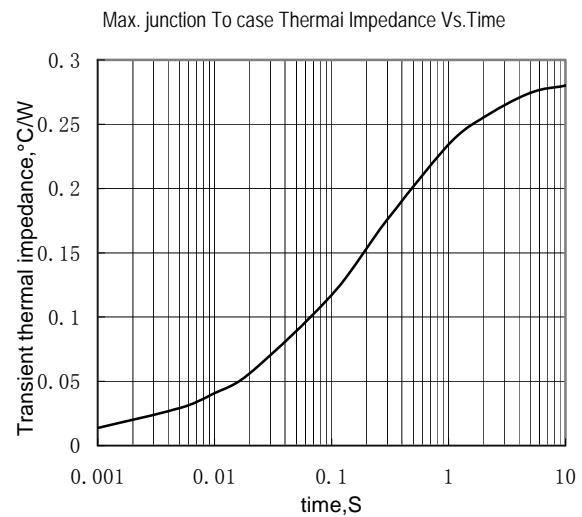


Fig.2

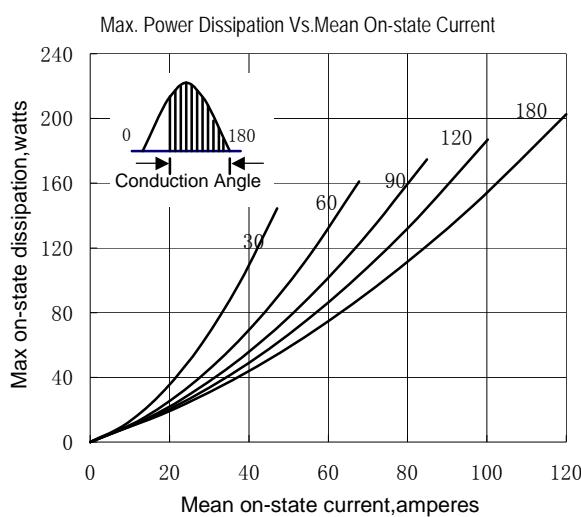


Fig.3

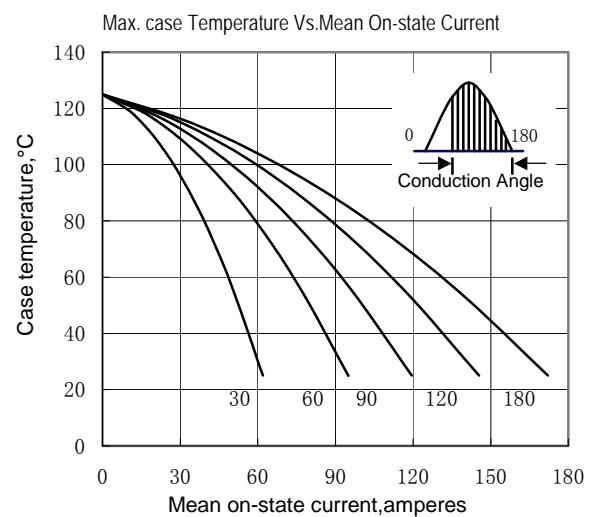


Fig.4

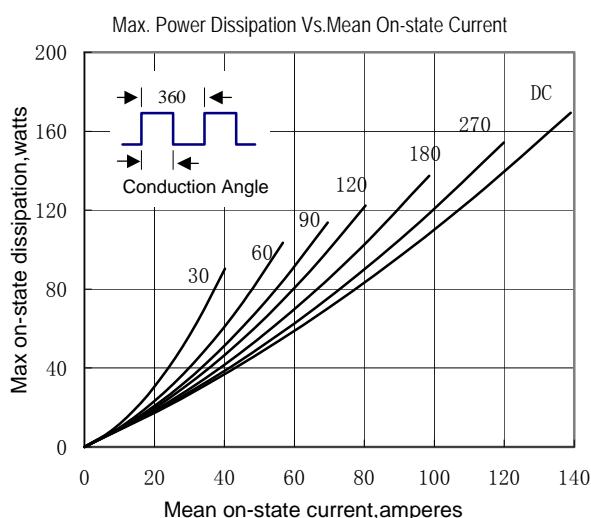


Fig.5

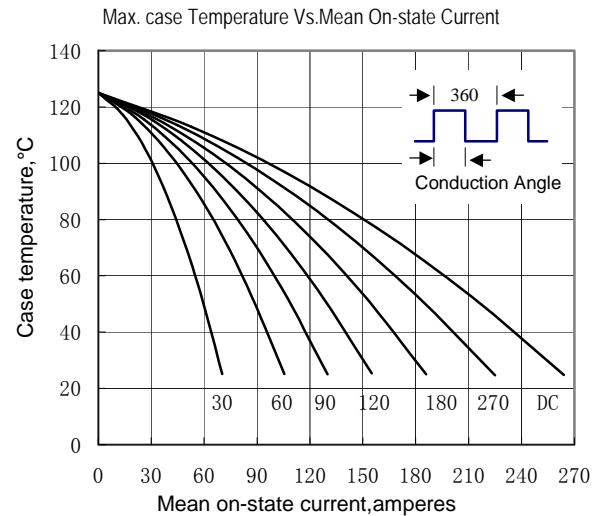


Fig.6

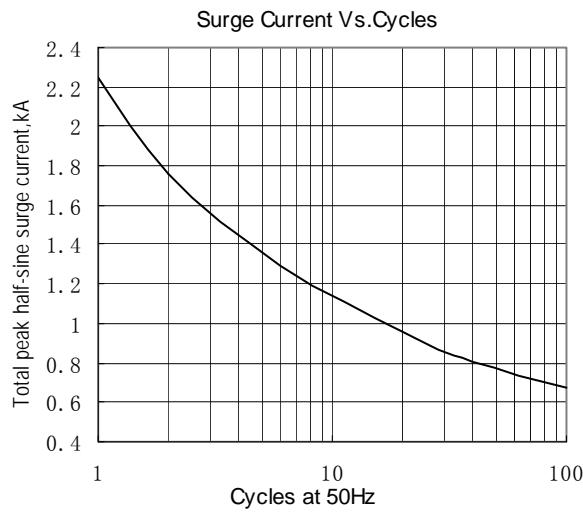


Fig.7

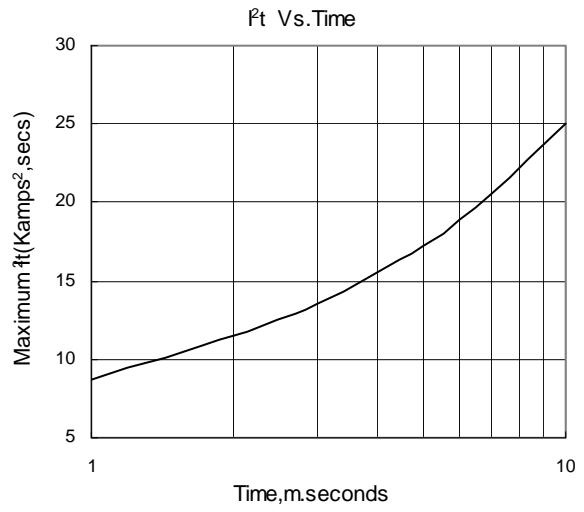


Fig.8

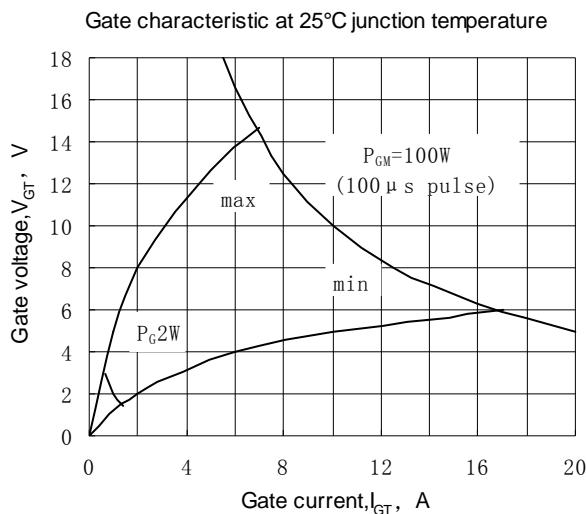


Fig.9

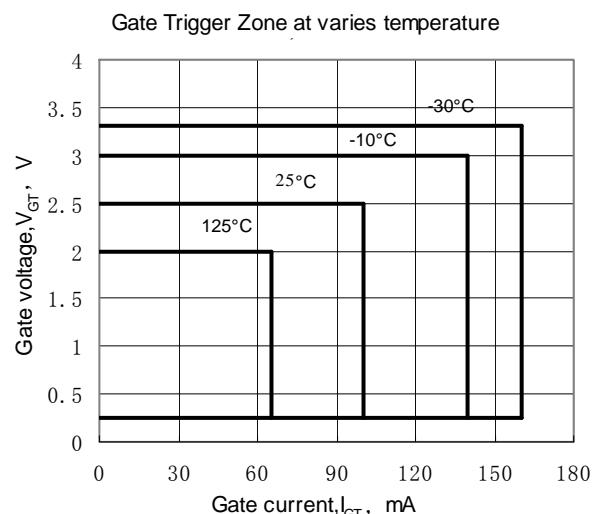


Fig.10

Outline:

