



浙江世菱半导体有限公司
ZHEJIANG SHILING SEMICONDUCTOR CO.,LTD.

产品规格书

Specification of products

产品名称：可控硅模块

产品型号：MTC110A-T03

浙江世菱半导体有限公司
ZHEJIANG SHILING SEMICONDUCTOR CO., LTD.

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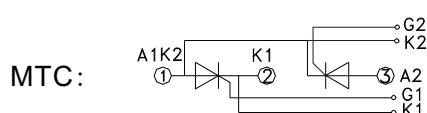
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拟制	审核	核准
林益龙	曹剑龙	宗瑞

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, $T_C=85^\circ\text{C}$	125			110	A
$I_{T(RMS)}$	RMS on-state current	Single side cooled, $T_C=85^\circ\text{C}$	125			173	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM}\&V_{RRM}$ tp=10ms $V_{DsM}\&V_{RsM}= V_{DRM}\&V_{RRM}+200\text{V}$ respectively	125	600		2000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			12	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			2.40	KA
I^2t	I^2T for fusing coordination	$V_R=60\%\text{V}_{RRM}$				29.3 $\text{A}^2\text{s}*10^3$	
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					2.29	$\text{m}\Omega$
V_{TM}	Peak on-state voltage	$I_{TM}=330\text{A}$	125			1.4	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%\text{V}_{DRM}$	125			500	$\text{V}/\mu\text{s}$
di/dt	Critical rate of rise of on-state current	From 67% V_{DRM} to 330A, Gate source 1.5A $t_r \leqslant 0.5 \mu\text{s}$ Repetitive	125			100	$\text{A}/\mu\text{s}$
I_{GT}	Gate trigger current	$V_A=12\text{V}, I_A=1\text{A}$	25	30		100	mA
V_{GT}	Gate trigger voltage			0.8		1.8	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to heatsink	At 180° sine Single side cooled				0.250	$^\circ\text{C}/\text{W}$
V_{iso}	Isolation voltage	50Hz, RM. S, t=1min, I_{iso} : 1mA (MAX)		2500			V
F_m	Thermal connection torque(M5)				4.0		N.m
	Mounting torque(M6)				5.0		N.m
T_{stg}	Stored temperature			-40		140	$^\circ\text{C}$
W_t	Weight				160		g
Outline							

OUTLINE DRAWING & CIRCUIT DIAGRAM



Rating and Characteristic

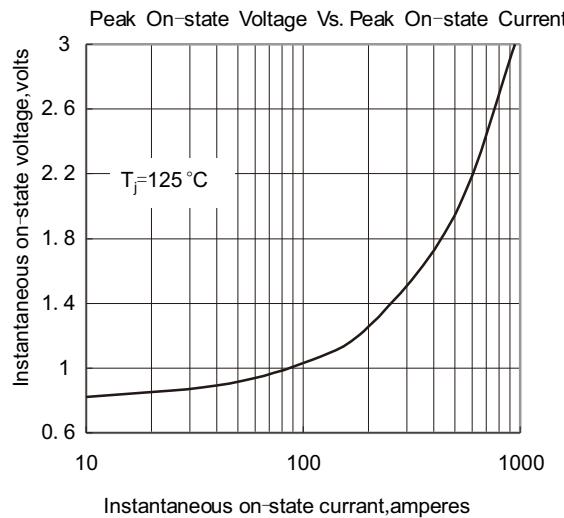


Fig. 1

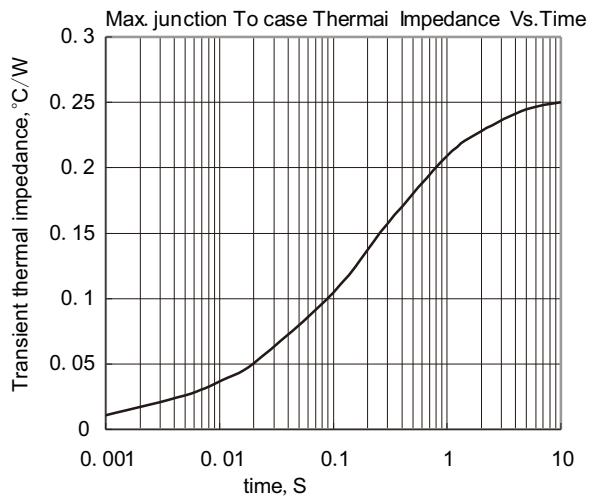


Fig. 2

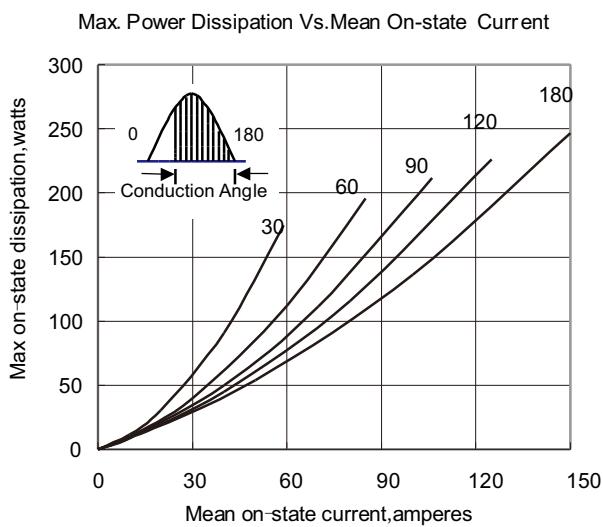


Fig. 3

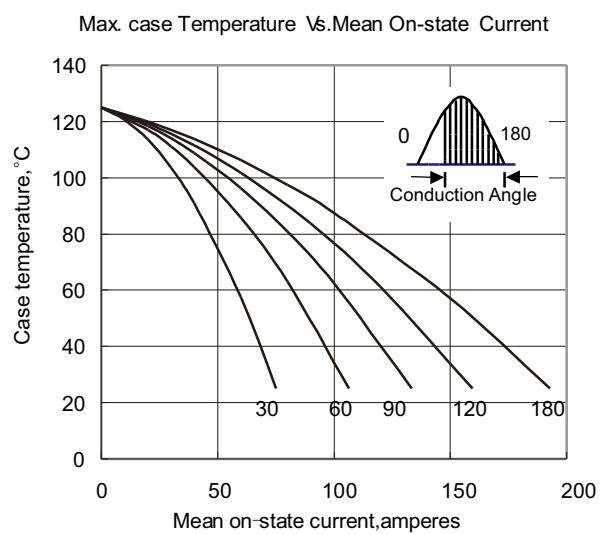


Fig. 4

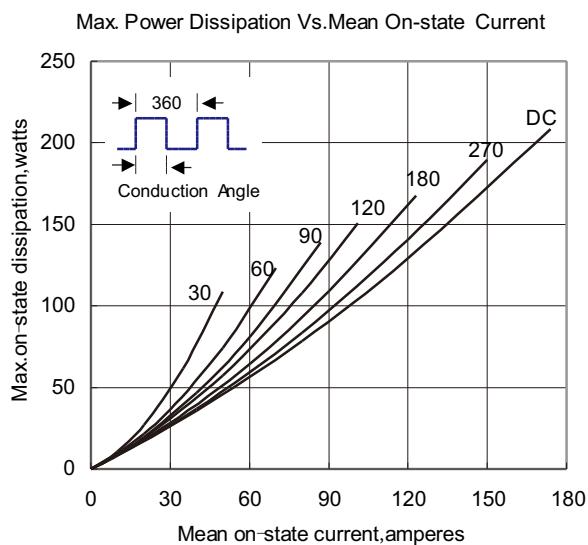


Fig. 5

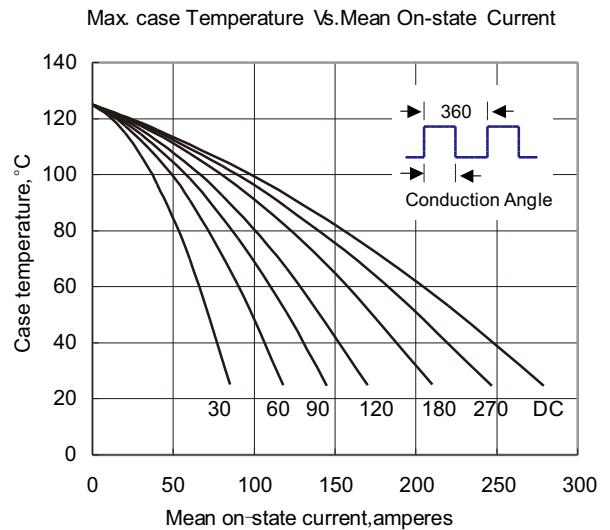


Fig. 6

Rating and Characteristic

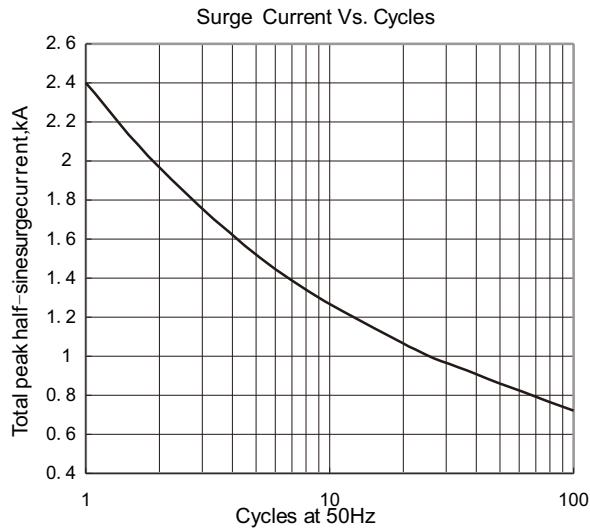


Fig. 7

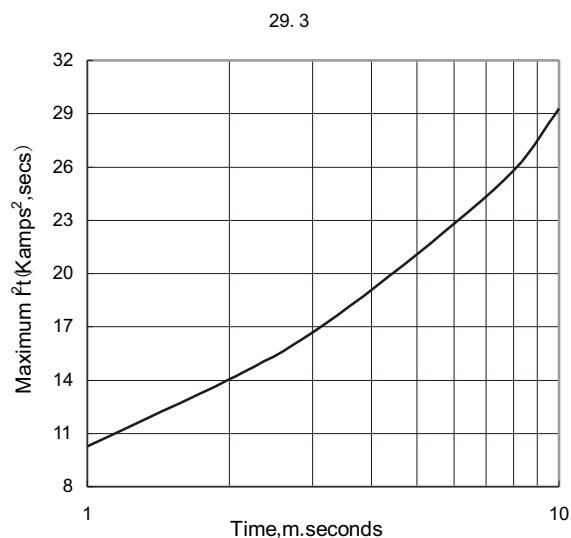


Fig. 8

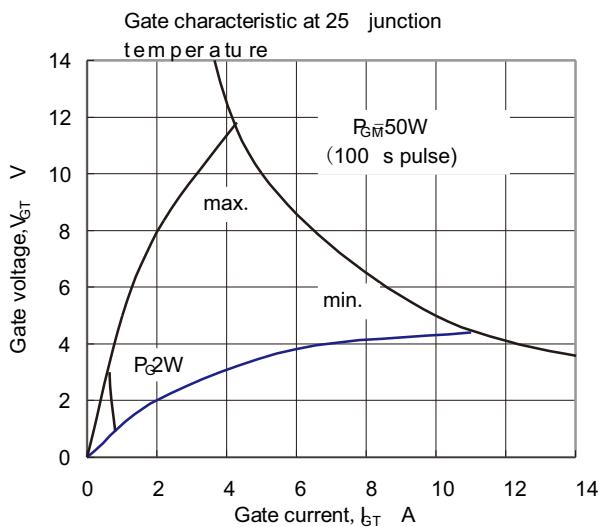


Fig. 9

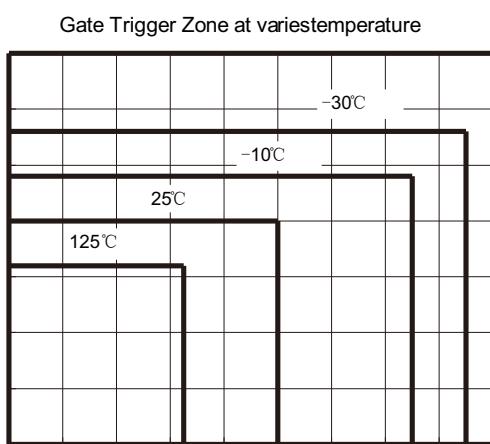


Fig. 10

Outside Dimension

