



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：MTC132A-T05

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

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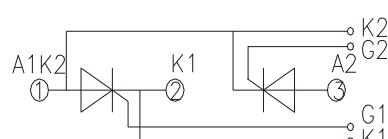
[Http://www.smrshiling.com](http://www.smrshiling.com)

拟制	审核	核准
林益龙	曹剑龙	宗瑞

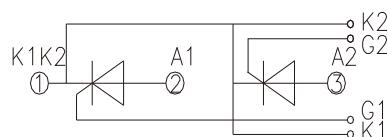
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_J (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$ $I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_C=85^\circ\text{C}$	125			132	A
$I_{T(\text{RMS})}$	RMS on-state current	Single side cooled, $T_C=85^\circ\text{C}$	125			207	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{\text{DRM}} \& V_{\text{RRM}}$ tp=10ms $V_{\text{DsM}} \& V_{\text{RsM}} = V_{\text{DRM}} \& V_{\text{RRM}} + 200\text{V}$ respectively	125		1200		V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			20	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			3.80	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{\text{RRM}}$				65	$\text{A}^2\text{s} \times 10^3$
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					2.12	$\text{m}\Omega$
V_{TM}	Peak on-state voltage	$I_{\text{TM}}=396\text{A}$	125			1.4	V
dv/dt	Critical rate of rise of off-state voltage	$V_{\text{DM}}=67\%V_{\text{DRM}}$	125			800	$\text{V}/\mu\text{s}$
di/dt	Critical rate of rise of on-state current	From 67% V_{DRM} to 405A, Gate source 1.5A $t_r \leq 0.5 \mu\text{s}$ Repetitive	125			100	$\text{A}/\mu\text{s}$
I_{GT}	Gate trigger current		25	20		150	mA
V_{GT}	Gate trigger voltage	$V_A=12\text{V}, I_A=1\text{A}$		0.8		2.0	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	At 67% V_{DRM}	125			0.2	V
$R_{\text{th(j-c)}}$	Thermal resistance Junction to heatsink	At 180° sine Single side cooled				0.200	$^\circ\text{C}/\text{W}$
V_{iso}	Isolation voltage	50Hz, RM. S, t=1min, $I_{\text{iso}}: 1\text{mA}$ (MAX)		2500			V
F_m	Thermal connection torque(M6)				5.0		N.m
	Mounting torque(M6)				5.0		N.m
T_{stg}	Stored temperature			-40		140	$^\circ\text{C}$
W_t	Weight				220		g
Outline							

OUTLINE DRAWING & CIRCUIT DIAGRAM

MTC



MTK



Rating and Characteristic

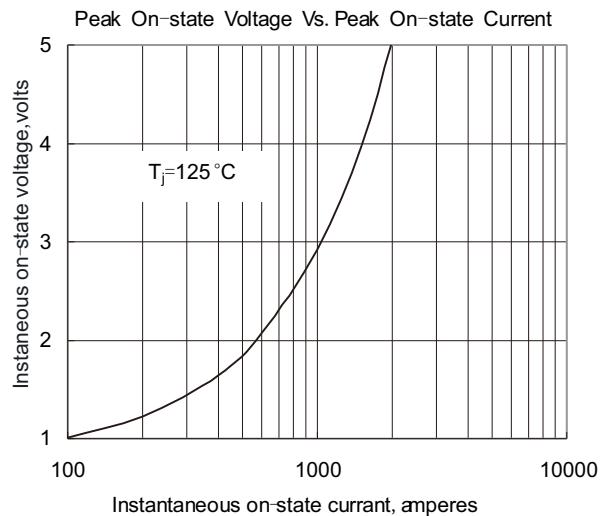


Fig.1

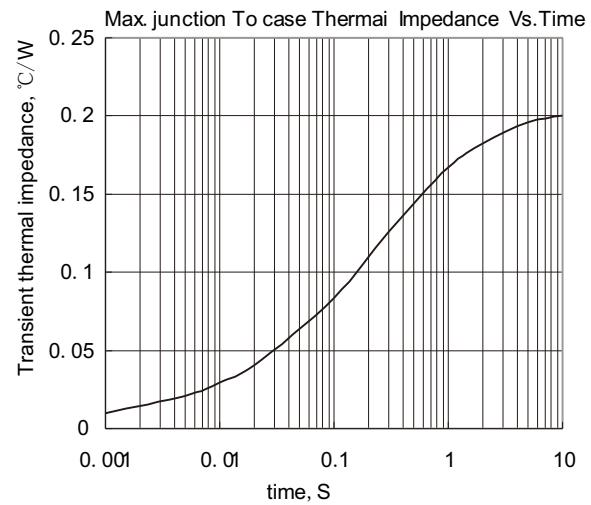


Fig.2

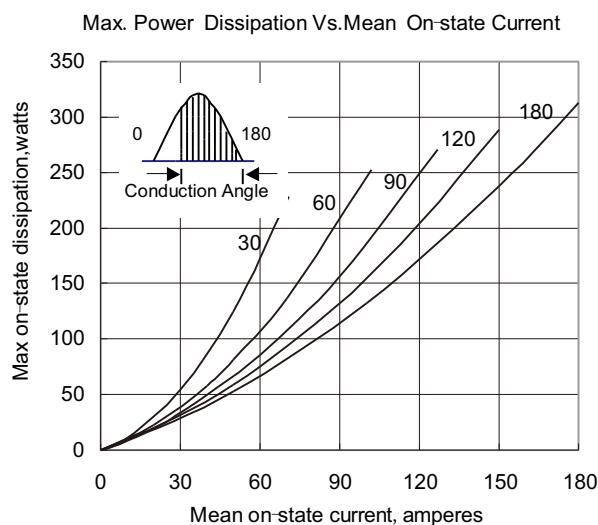


Fig.3

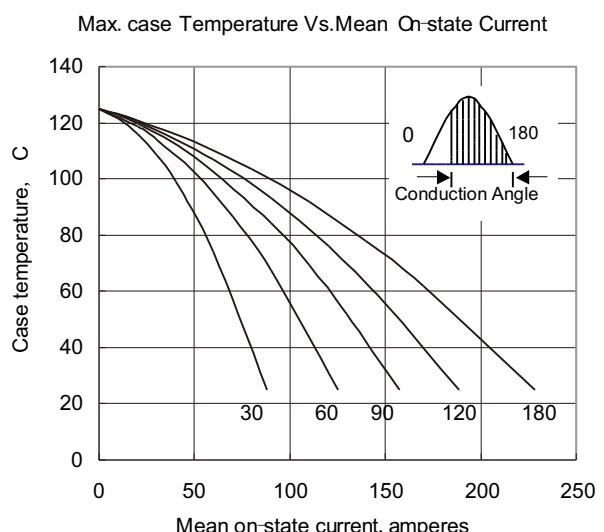


Fig.4

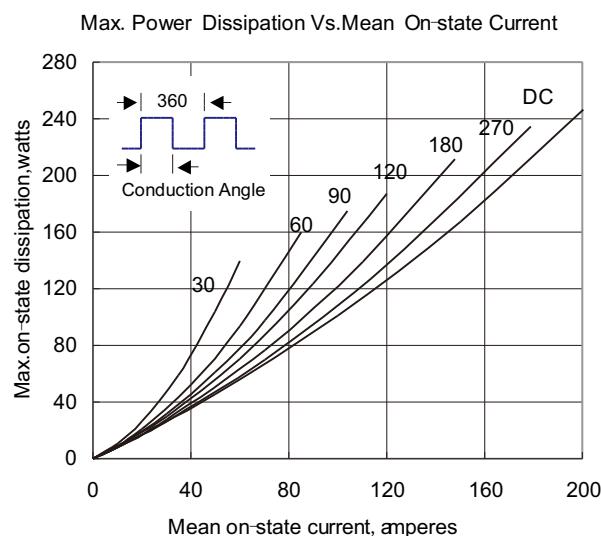


Fig.5

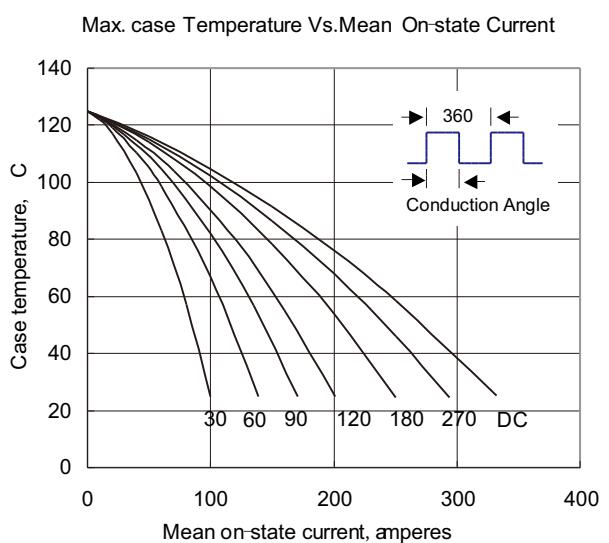


Fig.6

Rating and Characteristic

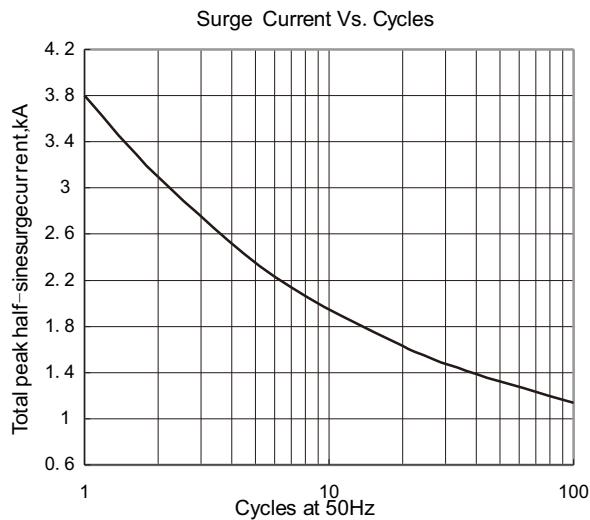


Fig. 7

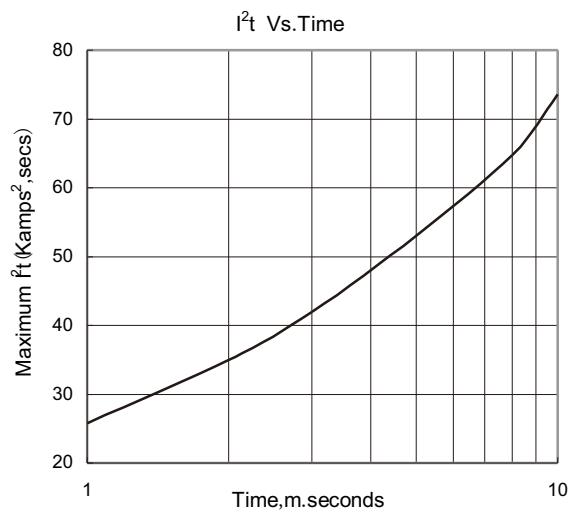


Fig. 8

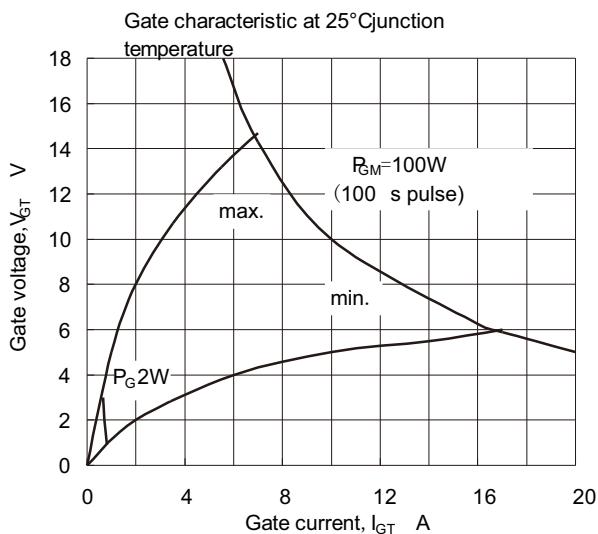


Fig. 9

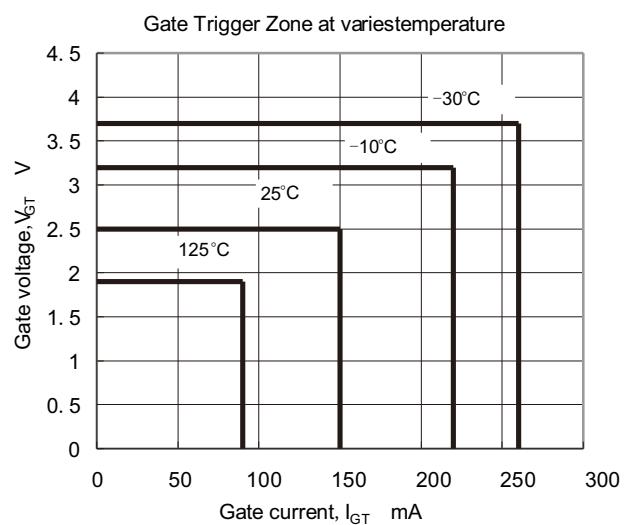


Fig. 10

Outside Dimension

