



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：MFC400A2200V-Y13

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ZHEJIANG SHILING SEMICONDUCTOR CO., LTD.

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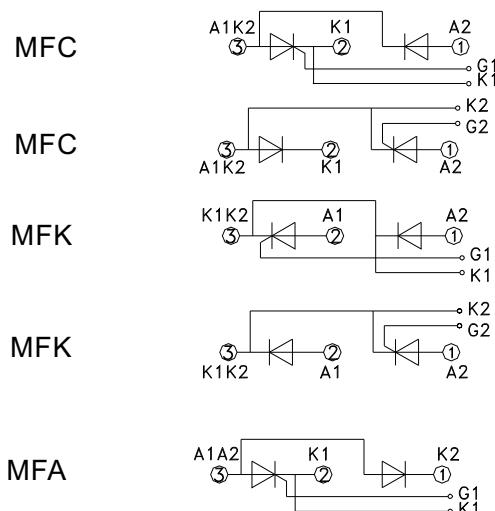
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拟制	审核	核准
林益龙	曹剑龙	宗瑞

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_J (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$ $I_{F(AV)}$	Mean on-state current	180° half sinewave 50Hz Single side cooled, $T_c=85^\circ C$	125			400	A
$I_{T(RMS)}$	RMS on-state current	Single side cooled, $T_c=85^\circ C$	125			628	A
V_{DRM} V_{RRM}	Repetitive peakoff-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM}$ tp=10ms $V_{DsM} \& V_{RsM} = V_{DRM} \& V_{RRM} + 200V$ respectively	125	2200		3000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sinewave	125			12.0	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				734 A^2s*10^3	
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.49	mΩ
V_{TM}/V_{FM}	Peak on-state voltage	$I_{TM}=1200A$	125			1.75	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	From 67% V_{DRM} to 1200A, Gate source 1.5A $t_r \leq 0.5 \mu s$ Repetitive	125			150	A/μs
I_{GT}	Gate trigger current		25	30		200	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$		0.8		3.0	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				0.080	°C /W
V_{iso}	Isolation voltage	50Hz, RM. S, t=1min, I_{iso} : 1mA (MAX)	3500				V
F_m	Thermal connection torque (M10)				9.0		N.m
	Mounting torque (M6)				5.0		N.m
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				1920		g
Outline							

OUTLINE DRAWING & CIRCUIT DIAGRAM



Rating and Characteristic

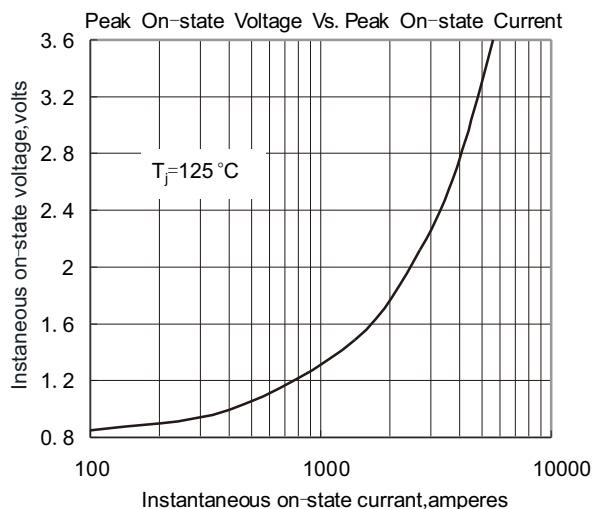


Fig. 1

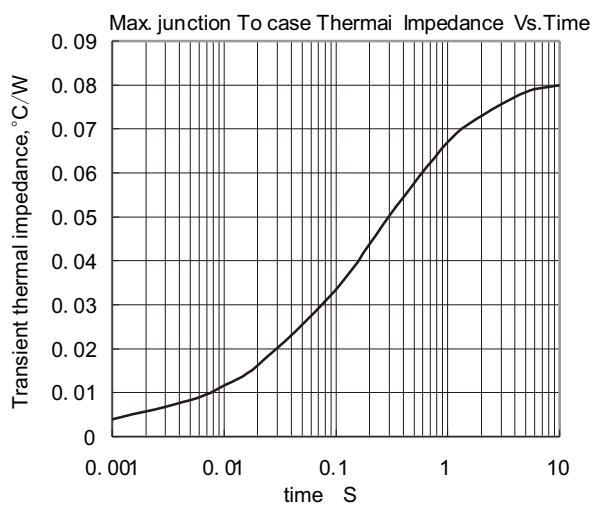


Fig. 2

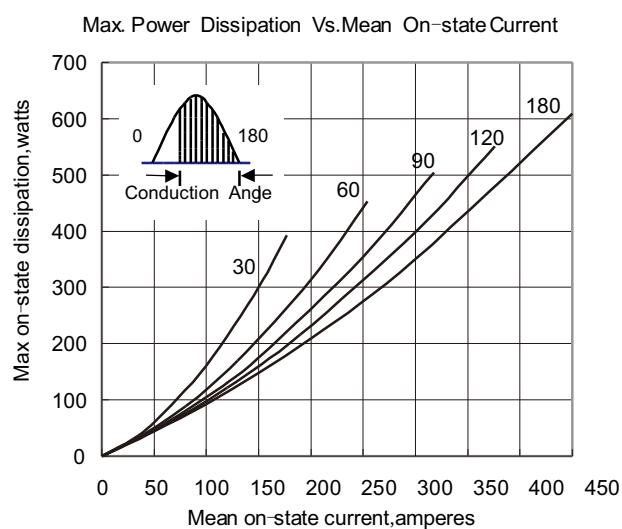


Fig. 3

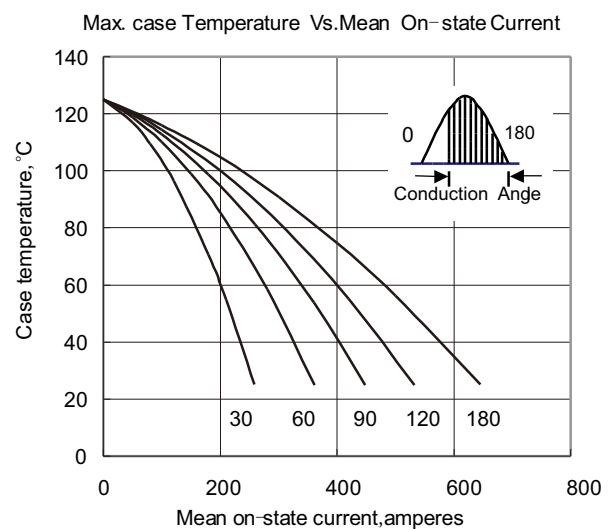


Fig. 4

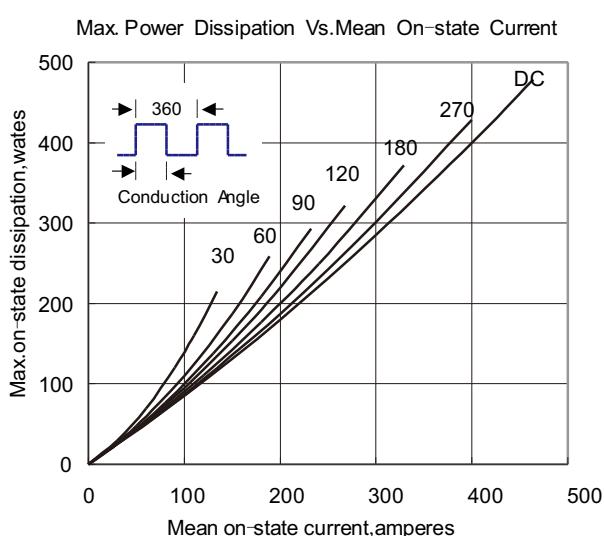


Fig. 5

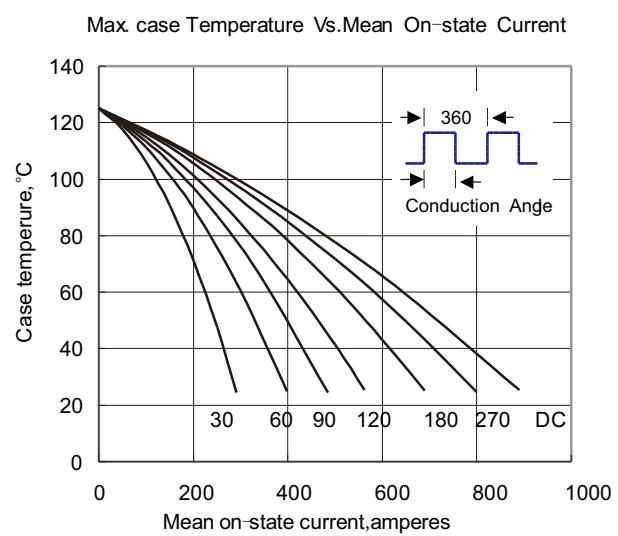


Fig. 6

Rating and Characteristic

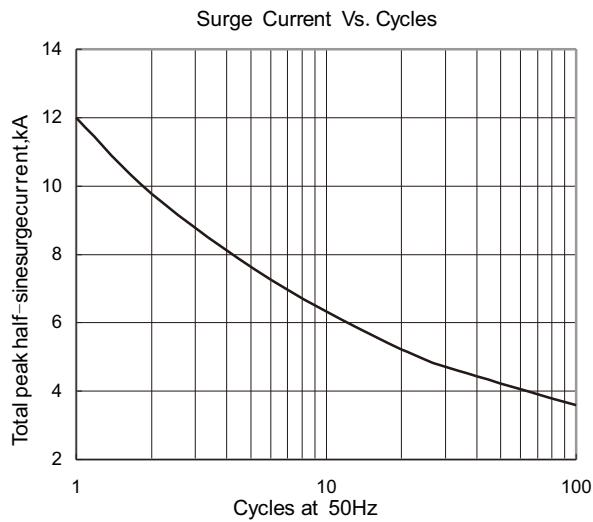


Fig. 7

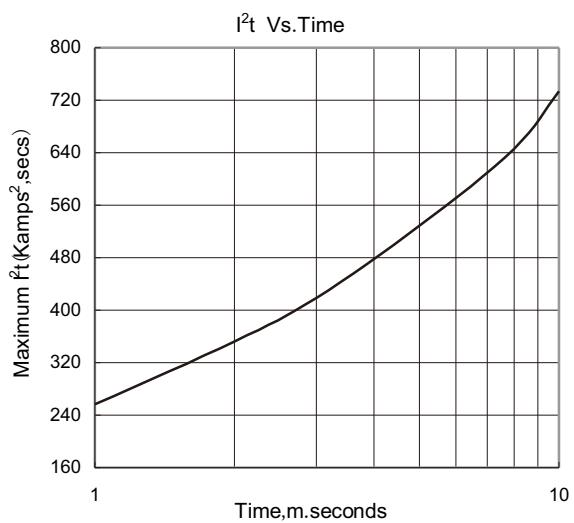


Fig. 8

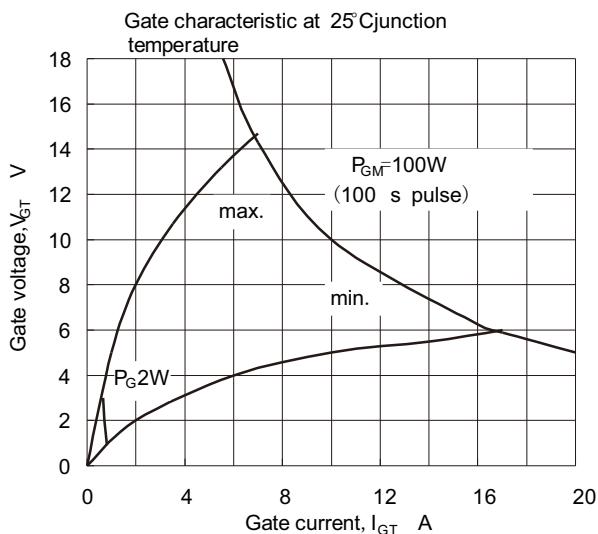


Fig. 9

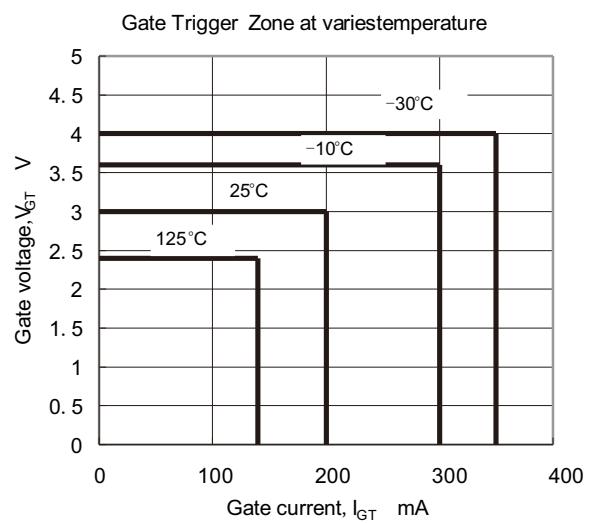


Fig. 10

Outside Dimension

