



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：MFC350A-Y08

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

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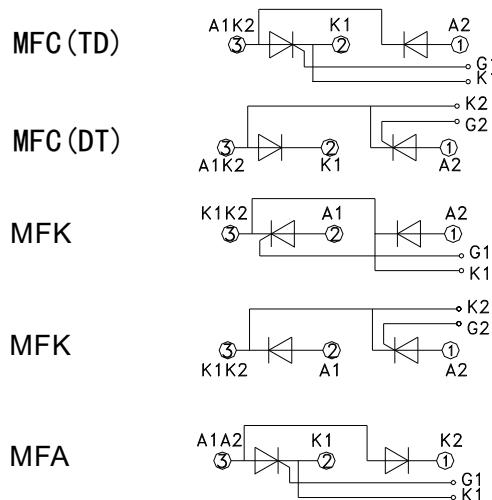
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拟制	审核	核准
林益龙	曹剑龙	宗瑞

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J$ (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$ $I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_C=85^\circ\text{C}$	125			350	A
$I_{T(\text{RMS})}$	RMS on-state current	Single side cooled, $T_C=85^\circ\text{C}$	125			550	A
$V_{\text{DRM}}$ $V_{\text{RRM}}$	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	600		2000	V
$I_{\text{DRM}}$ $I_{\text{RRM}}$	Repetitive peak current	at $V_{\text{DRM}}$ at $V_{\text{RRM}}$	125			40	mA
$I_{\text{TSM}}$	Surge on-state current	10ms half sine wave	125			11.0	KA
$I^2t$	$I^2T$ for fusing coordination	$V_R=60\%V_{\text{RRM}}$				617 $\text{A}^2\text{s} \times 10^3$	
$V_{\text{TO}}$	Threshold voltage		125			0.80	V
$r_T$	On-state slop resistance					0.50	$\text{m}\Omega$
$V_{\text{TM}}$	Peak on-state voltage	$I_{\text{TM}}=1050\text{A}$	125			1.5	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% $V_{\text{DRM}}$ to 1050A, Gate source 1.5A $t_r \leq 0.5 \mu\text{s}$ Repetitive	125			150	$\text{A}/\mu\text{s}$
$I_{\text{GT}}$	Gate trigger current		25	30		180	mA
$V_{\text{GT}}$	Gate trigger voltage	$V_A=12\text{V}, I_A=1\text{A}$		0.8		2.5	V
$I_H$	Holding current			20		100	mA
$V_{\text{GD}}$	Non-trigger gate voltage	At 67% $V_{\text{DRM}}$	125			0.2	V
$R_{\text{th(j-c)}}$	Thermal resistance Junction to heatsink	At 180° sine Single side cooled				0.090	$^\circ\text{C}/\text{W}$
$V_{\text{iso}}$	Isolation voltage	50Hz, RM. S, t=1min, $I_{\text{iso}}: 1\text{mA}$ (MAX)		2500			V
$F_m$	Thermal connection torque(M8)				7.0		N.m
	Mounting torque(M6)				5.0		N.m
$T_{\text{stg}}$	Stored temperature			-40		125	$^\circ\text{C}$
$W_t$	Weight				1575		g
Outline							

## OUTLINE DRAWING & CIRCUIT DIAGRAM



## Rating and Characteristic

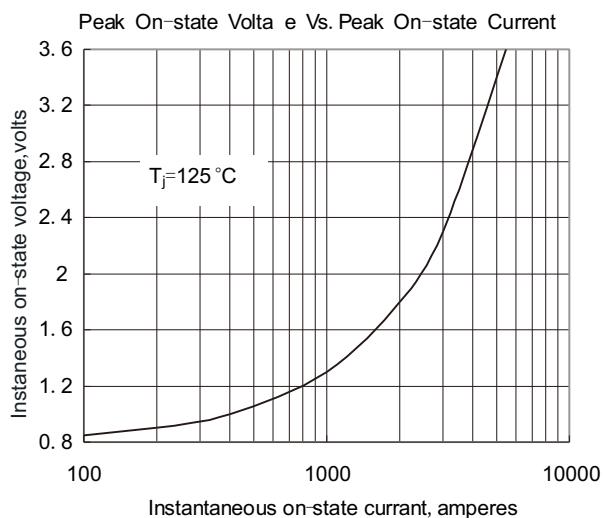


Fig.1

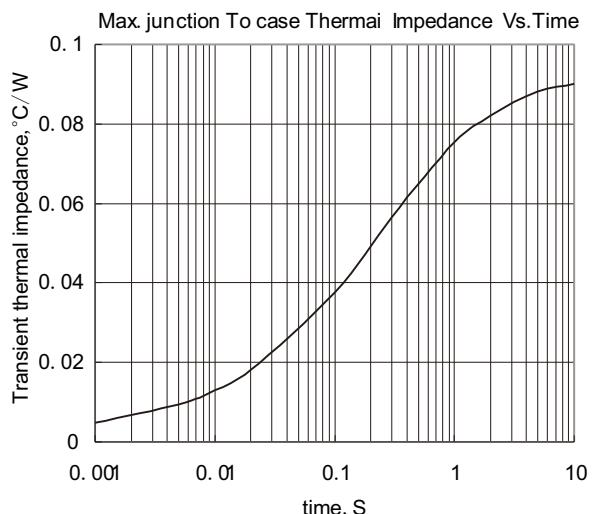


Fig. 2

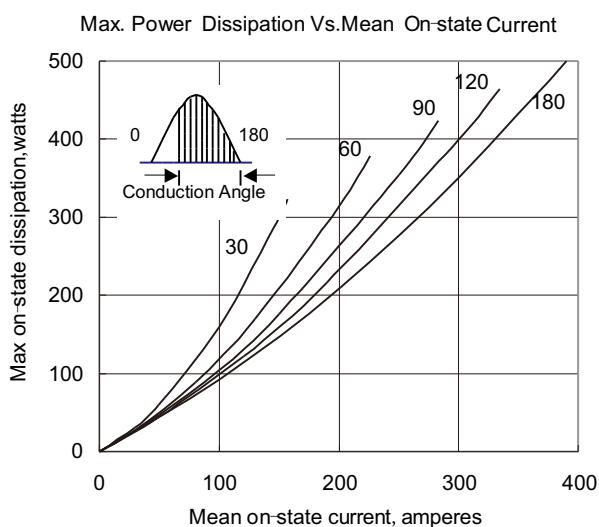


Fig.3

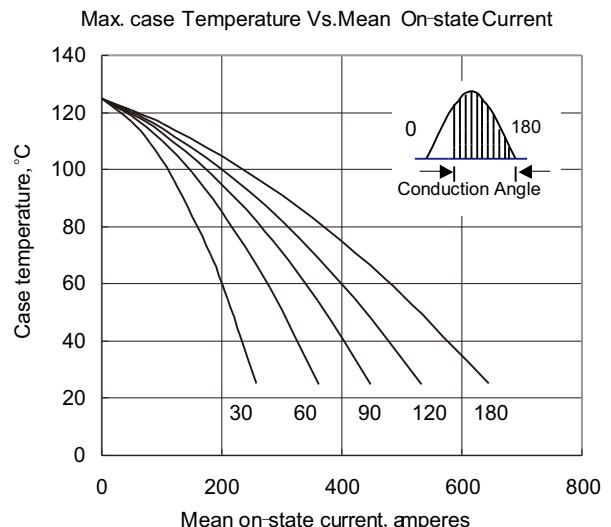


Fig.4

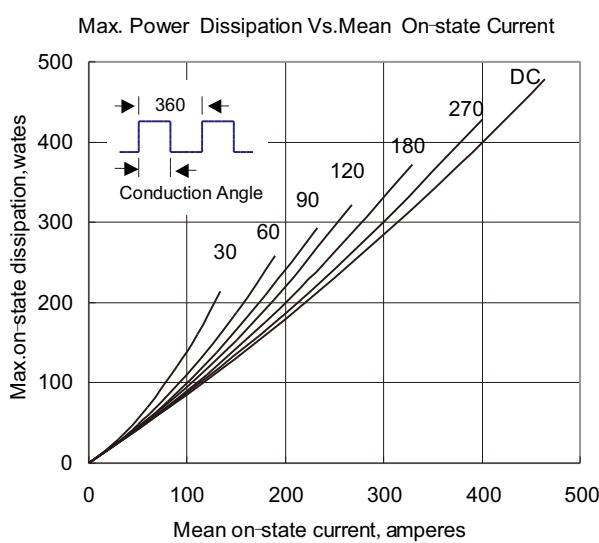


Fig.5

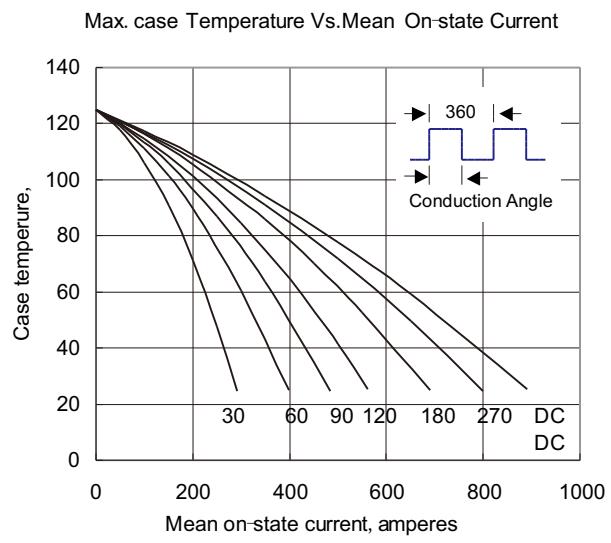


Fig.6

## Rating and Characteristic

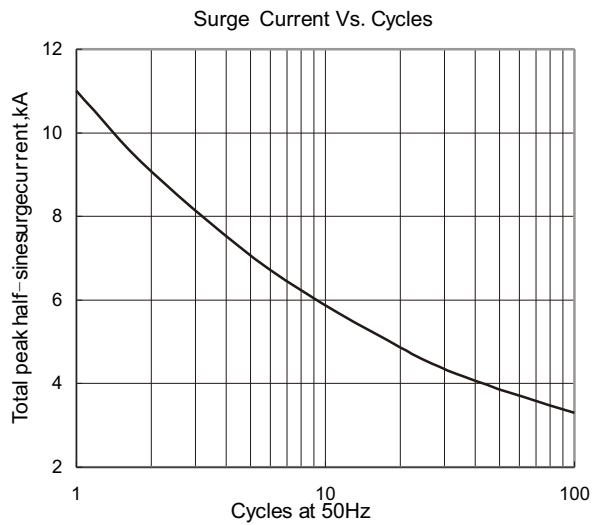


Fig. 7

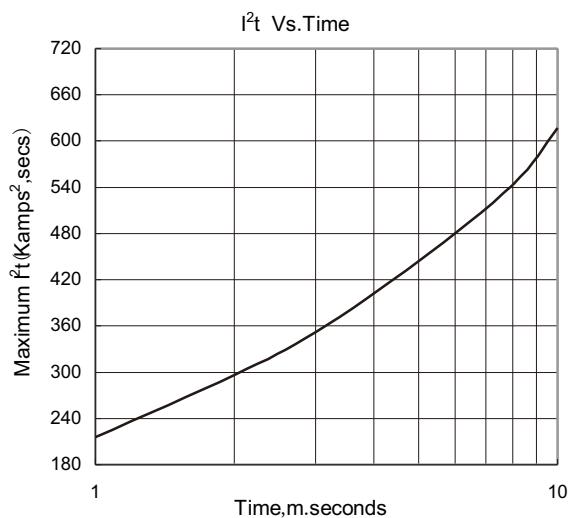


Fig. 8

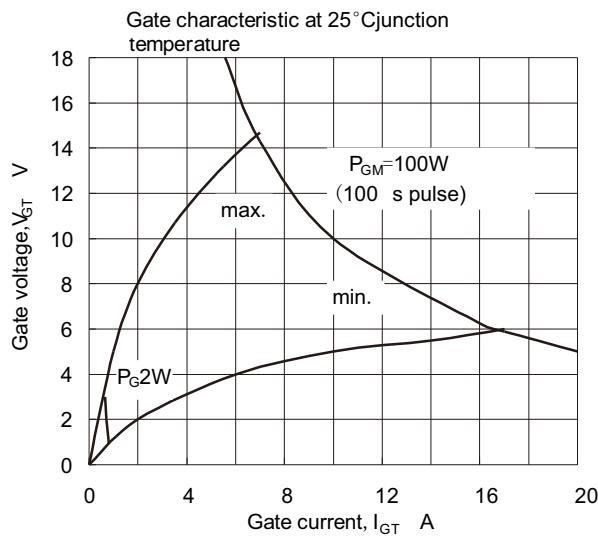


Fig. 9

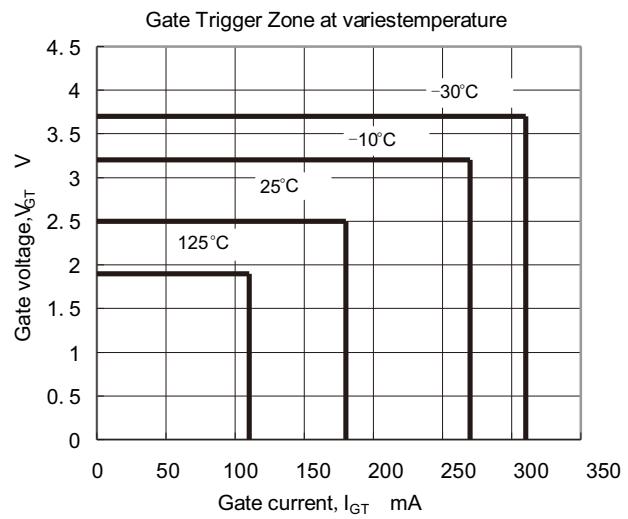


Fig. 10

## Outside Dimension

