

## 产品规格书

### Specification of products

产品名称:可控硅模块

产品型号: SKKT470A16E-Y09

浙江世菱半导体有限公司  
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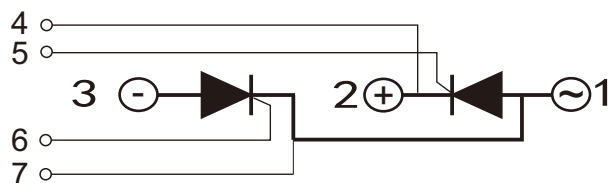
Http://www.smrshiling.com

拟制	审核	核准
林益龙	曹剑龙	宗瑞

SYMBOL	CHARACTERISTIC	TEST CONDI TIONS	T <sub>j</sub> (C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180 half sine wave 50Hz Single side cooled, T <sub>c</sub> =85 C	125			470	A
I <sub>T(RMS)</sub>	RMS on-state current		125			737	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak o ff-state voltage Repetitive peak reverse voltage	V <sub>DRM</sub> & V <sub>RRM</sub> tp=10ms V <sub>DsM</sub> & V <sub>RSM</sub> = V <sub>DRM</sub> & V <sub>RRM</sub> +200V respectively	125	600		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			35	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			14.5	KA
I <sup>2</sup> t	I <sup>2</sup> T for fusing coordination	V <sub>R</sub> =60%V <sub>RRM</sub>				1051A	2s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.80	V
r <sub>T</sub>	On-state slop resistance					0.34	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =1400A	25			1.50	V
dv/dt	Critical rate of rise of off-state voltage V	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			800	V/μs
di/dt	Critical rate of rise of on-state current	I <sub>TM</sub> =500A, Gate source 1.5A t <sub>r</sub> ≤ 0.5 μs Repetitive	125			100	A/μs
I <sub>GT</sub>	Gate trigger current			30		180	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	1.0		2.5	V
I <sub>H</sub>	Holding current			20		200	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125	0.2			V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled per chip				0.065	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink	Single side cooled per chip				0.024	°C /W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M. S, t=1min, I <sub>iso</sub> :1mA(MAX)		3000			V
F <sub>m</sub>	Thermal connection torque (M10)				9.0		N m
	Mounting torque (M6)				5.0		N m
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				1500		g
Outline	Y-09						

### OUTLINE DRAWING & CIRCUIT DIAGRAM

SKKT :



### Rating and Characteristic

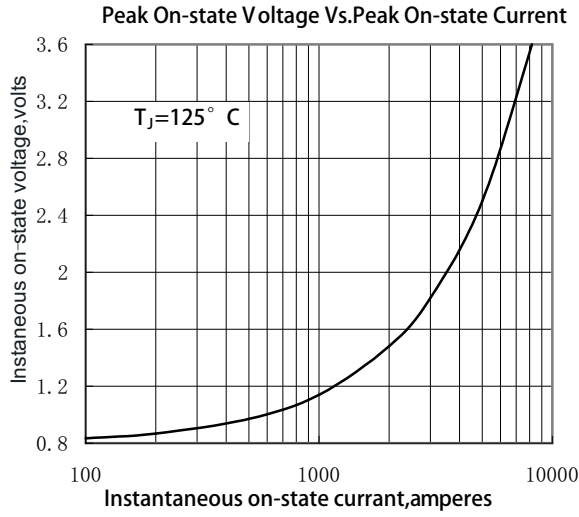


Fig.1

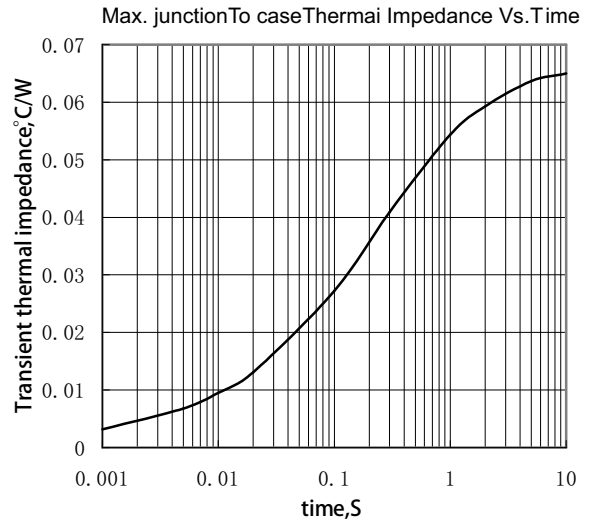


Fig.2

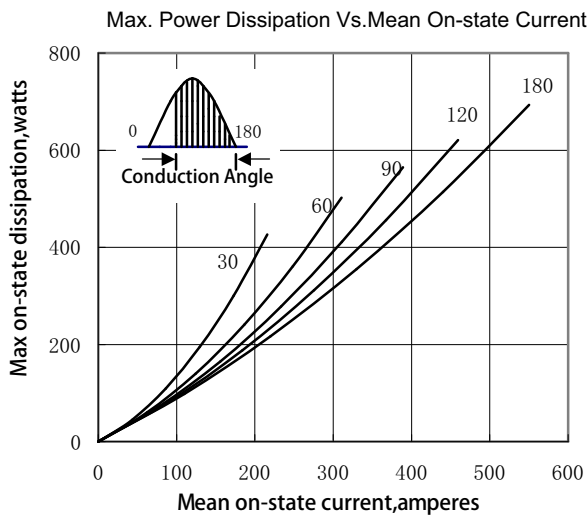


Fig.3

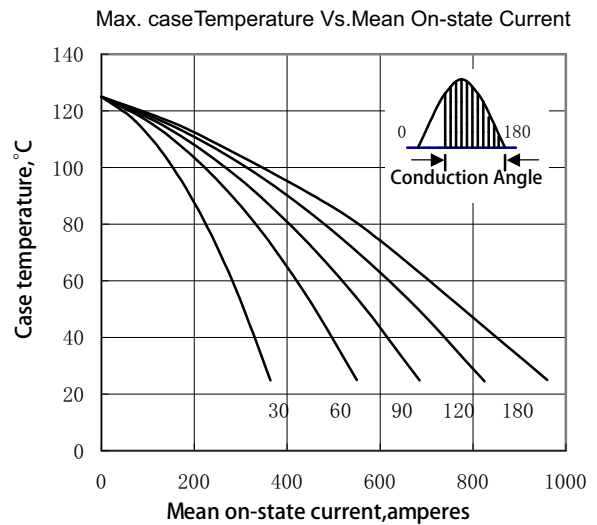


Fig.4

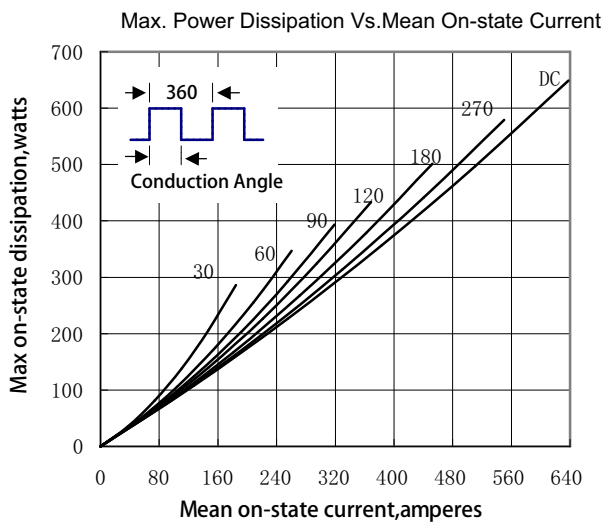


Fig.5

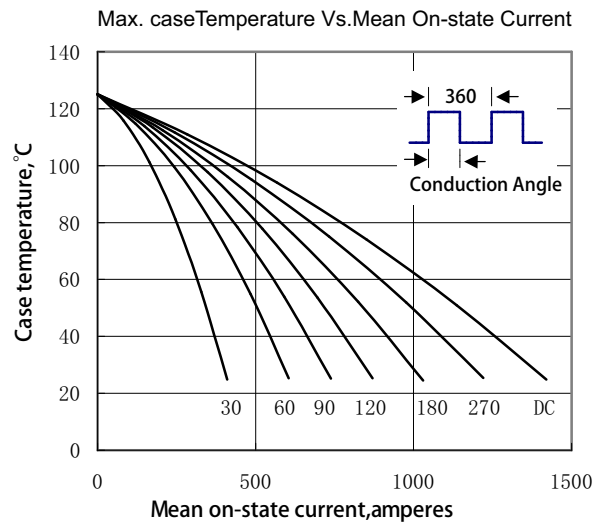


Fig.6

### Rating and Characteristic

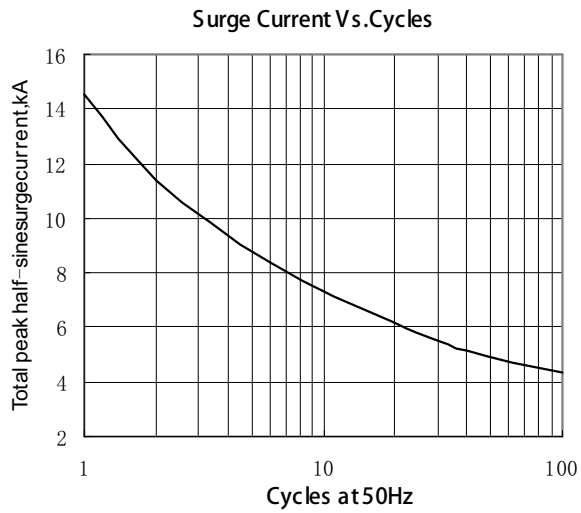


Fig.7

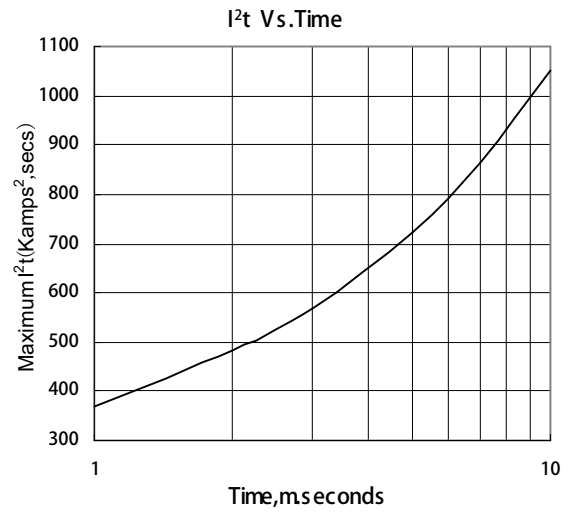


Fig.8

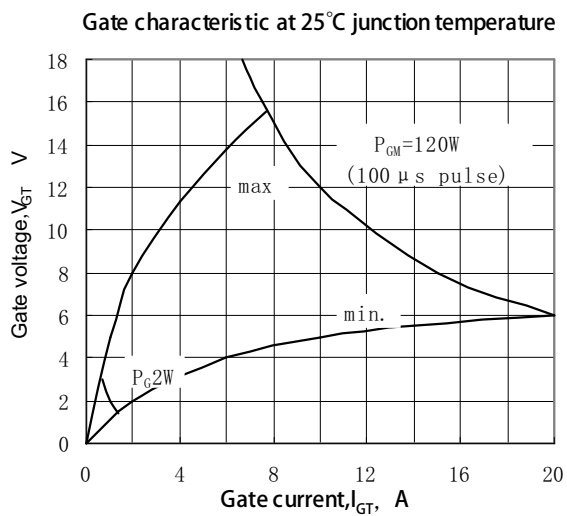


Fig.9

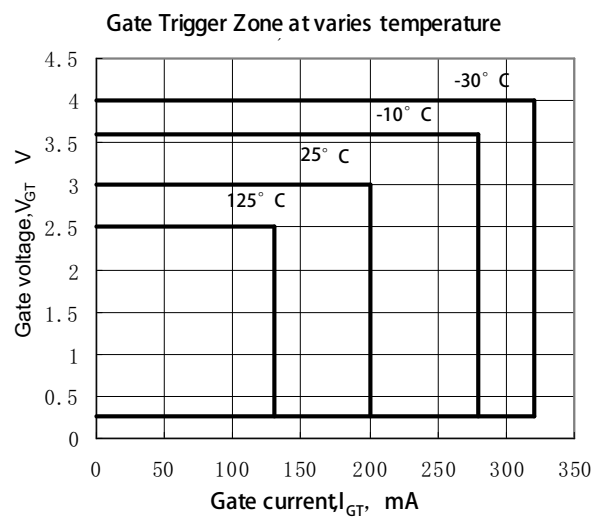


Fig.10

## Outside Dimension

