

## 产品规格书

### Specification of products

产品名称:可控硅模块

产品型号: SKKT250A16E-Y04

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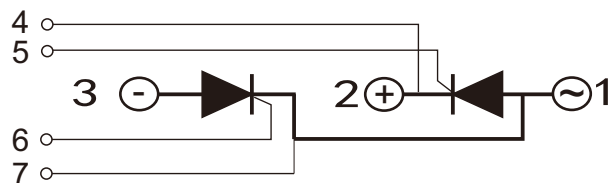
Http://www.smrshiling.com

|     |     |    |
|-----|-----|----|
| 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<br>Single side cooled, T <sub>c</sub> =85 C  | 125                |       |      | 250   | A                               |
| I <sub>T(RMS)</sub>                  | RMS on-state current  |  | 125                |       |      | 393   | A                               |
| V <sub>DRM</sub><br>V <sub>RRM</sub> | Repetitive peak o ff-state voltage<br>Repetitive peak reverse voltage | V <sub>DRM</sub> & V <sub>RRM</sub> tp=10ms<br>V <sub>DsM</sub> & V <sub>RSM</sub> = V <sub>DRM</sub> & V <sub>RRM</sub> +200V<br>respectively | 125                | 600   |      | 1800  | V                               |
| I <sub>DRM</sub><br>I <sub>RRM</sub> | Repetitive peak current   | at V <sub>DRM</sub><br>at V <sub>RRM</sub>   | 125                |       |      | 35    | mA                              |
| I <sub>TSM</sub>                     | Surge on-state current  | 10ms half sine wave  | 125                |       |      | 9.00  | KA                              |
| I <sup>2</sup> t                     | I <sup>2</sup> T for fusing coord ination                             | V <sub>R</sub> =60%V <sub>RRM</sub>  |                    |       |      | 405 A | 2 <sub>s</sub> *10 <sup>3</sup> |
| V <sub>TO</sub>                      | Threshold voltage   |  | 125                |       |      | 0.85  | V                               |
| r <sub>T</sub>                       | On-state slop resistance  |  |                    |       |      | 0.80  | mΩ                              |
| V <sub>TM</sub>                      | Peak on-state voltage   | I <sub>TM</sub> =750A  | 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<br>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    |      | 150   | 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<br>Junction to case                                | Single side cooled per chip  |                    |       |      | 0.120 | C /W                            |
| R <sub>th(c-h)</sub>                 | Thermal resistance<br>case to heat sink                               | Single side cooled per chip  |                    |       |      | 0.04  | 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 (M8)  |  |                    |       | 7.0  |       | N m                             |
|                                      | Mounting torque (M6)  |  |                    |       | 5.0  |       | N m                             |
| T <sub>stg</sub>                     | Stored temperature  |  |                    | -40   |      | 125   | C                               |
| W <sub>t</sub>                       | Weight  |  |                    |       | 820  |       | g                               |
| Outline                              | Y-04  |  |                    |       |      |       |                                 |

### OUTLINE DRAWING & CIRCUIT DIAGRAM

SKKT :



### Rating and Characteristic

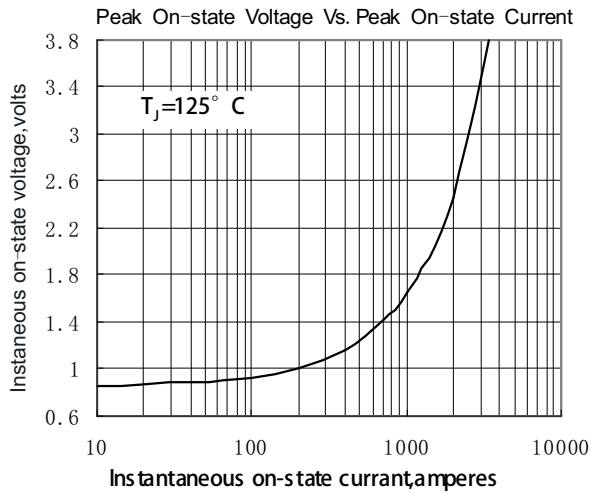


Fig. 1

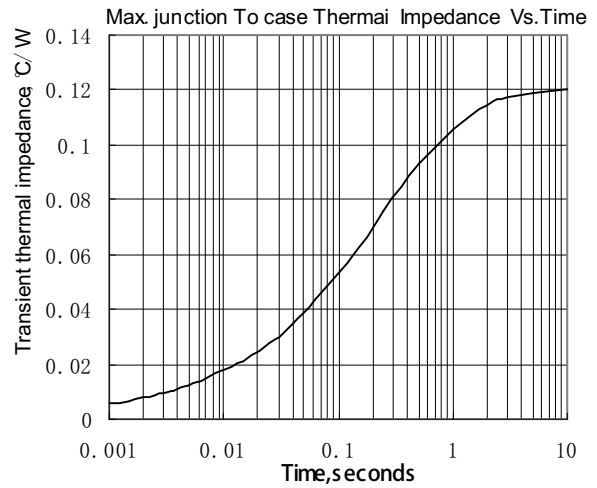


Fig. 2

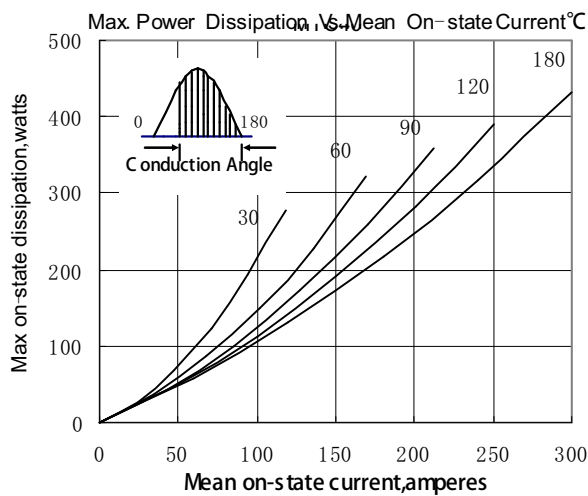


Fig. 3

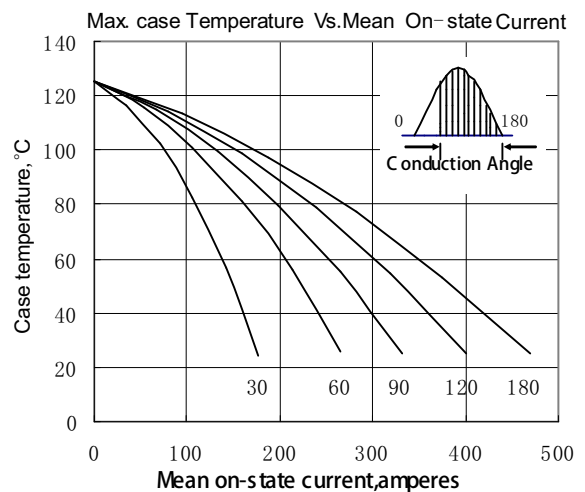


Fig. 4

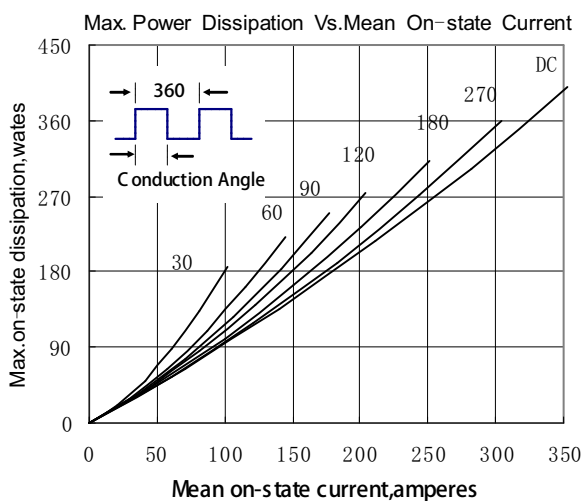


Fig. 5

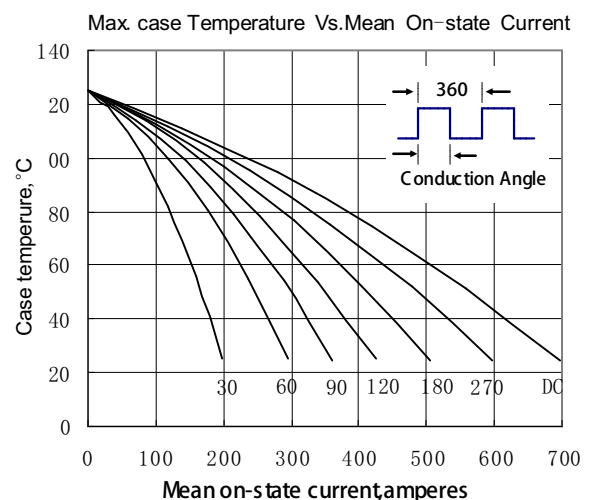


Fig. 6

### Rating and Characteristic

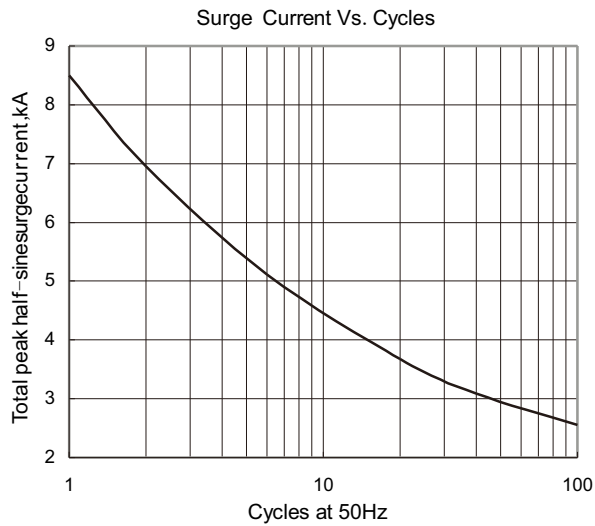


Fig. 7

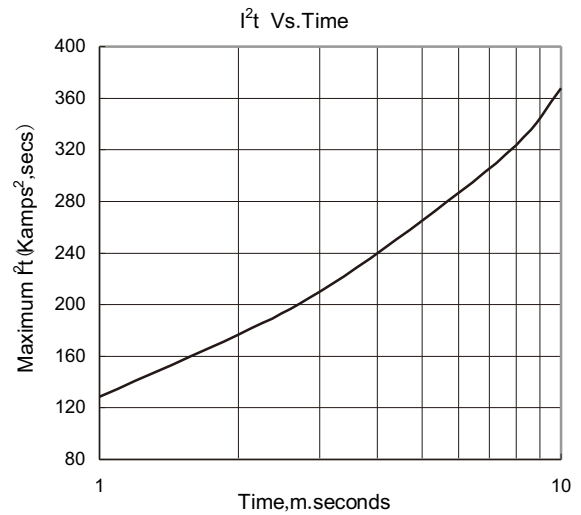


Fig. 8

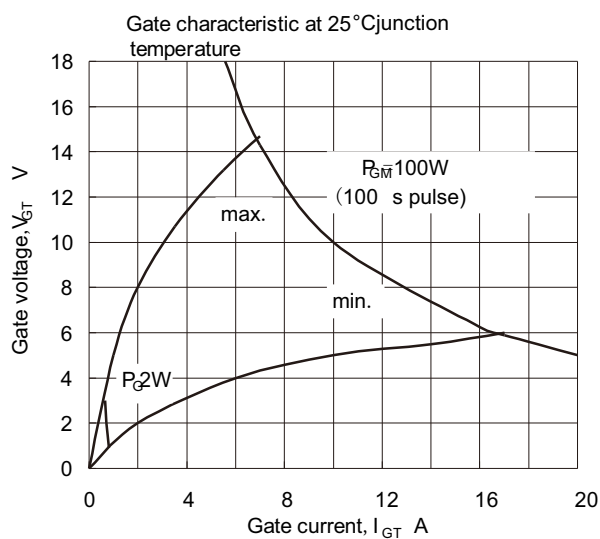


Fig. 9

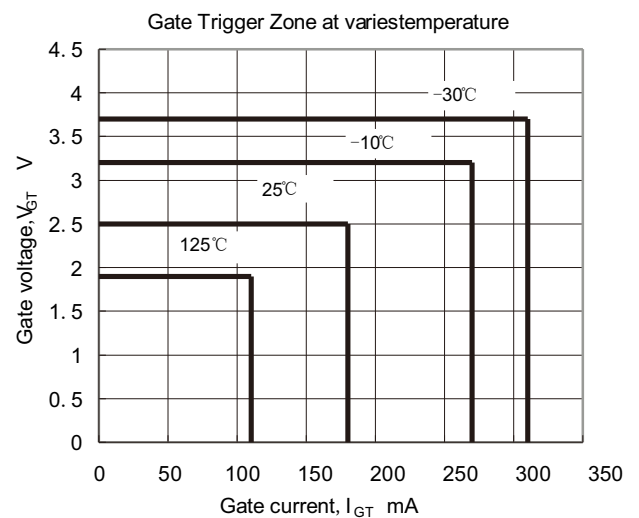


Fig. 10

## Outside Dimension

