



浙江芯芯电子有限公司  
ZHEJIANG XINXIN ELECTIRICAL CO., LTD.

## 产品规格书

### Specification of Products

产品名称：可控硅模块

产品型号：SKKT57A/16E

浙江芯芯电子有限公司

ZHEJIANG XINXIN ELECTIRICAL CO., LTD.

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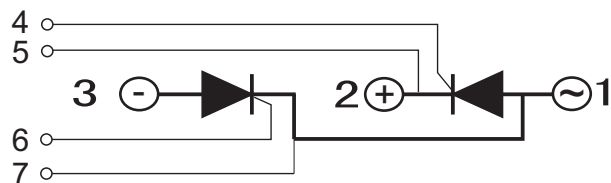
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| 拟制  | 审核  | 核准  |
| 丁国盛 | 李园利 | 麻伟阳 |

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| SYMBOL                               | CHARACTERISTIC                                                      | TEST CONDITIONS                                                                                                                             | T <sub>j</sub> (°C) | VALUE |      |       | UNIT                             |
|--------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|------|-------|----------------------------------|
|                                      |                                                                     |                                                                                                                                             |                     | Min   | Type | Max   |                                  |
| I <sub>T(AV)</sub>                   | Mean on-state current                                               | 180° half sinewave 50Hz<br>Single side cooled, T <sub>j</sub> =85°C                                                                         | 125                 |       |      | 57    | A                                |
| I <sub>T(RMS)</sub>                  | RMS on-state current                                                | Single side cooled, T <sub>j</sub> =85°C                                                                                                    | 125                 |       |      | 90    | A                                |
| V <sub>DRM</sub><br>V <sub>RRM</sub> | Repetitive peak on-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                 |       | 1600 | 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                 |       |      | 10    | mA                               |
| I <sub>TSM</sub>                     | Surge on-state current                                              | 10ms half sinewave                                                                                                                          | 125                 |       |      | 1.25  | KA                               |
| I <sup>2</sup> t                     | I <sup>2</sup> T for fusing coordination                            | V <sub>R</sub> =60%V <sub>RRM</sub>                                                                                                         |                     |       |      | 8.0   | A <sup>2</sup> s*10 <sup>3</sup> |
| V <sub>TO</sub>                      | Threshold voltage                                                   |                                                                                                                                             | 125                 |       |      | 0.90  | V                                |
| r <sub>T</sub>                       | On-state slop resistance                                            |                                                                                                                                             |                     |       |      | 3.50  | mΩ                               |
| V <sub>TM</sub>                      | Peak on-state voltage                                               | I <sub>TM</sub> =171A                                                                                                                       | 125                 |       |      | 1.40  | V                                |
| dv/dt                                | Critical rate of rise of off-state voltage                          | V <sub>DM</sub> =67%V <sub>DRM</sub>                                                                                                        | 125                 |       |      | 1000  | V/μs                             |
| di/dt                                | Critical rate of rise of on-state current                           | From 67%V <sub>DRM</sub><br>to 210A, Gate source 1.5A<br>t <sub>r</sub> ≤ 0.5 μs Repetitive                                                 | 125                 |       |      | 150   | A/μs                             |
| I <sub>GT</sub>                      | Gate trigger current                                                | V <sub>A</sub> =12V, I <sub>A</sub> =1A                                                                                                     | 25                  | 30    |      | 150   | mA                               |
| V <sub>GT</sub>                      | Gate trigger voltage                                                |                                                                                                                                             |                     | 0.8   |      | 1.8   | V                                |
| I <sub>H</sub>                       | Holding current                                                     |                                                                                                                                             |                     | 20    |      | 100   | mA                               |
| V <sub>GD</sub>                      | Non-trigger gate voltage                                            | At 67%V <sub>DRM</sub>                                                                                                                      | 125                 |       |      | 0.25  | V                                |
| R <sub>th(j-c)</sub>                 | Thermal resistance<br>Junction to heatsink                          | At 180° sine Single side cooled                                                                                                             |                     |       |      | 0.280 | °C /W                            |
| V <sub>iso</sub>                     | Isolation voltage                                                   | 50Hz, RM. S, t=1min, I <sub>so</sub> : 1mA MAX)                                                                                             |                     | 2500  |      |       | V                                |
| F <sub>m</sub>                       | Thermal connection torque(M5)                                       |                                                                                                                                             |                     |       | 2.0  |       | N.m                              |
|                                      | Mounting torque(M6)                                                 |                                                                                                                                             |                     |       | 3.0  |       | N.m                              |
| T <sub>stg</sub>                     | Stored temperature                                                  |                                                                                                                                             |                     | -40   |      | 150   | °C                               |
| W <sub>t</sub>                       | Weight                                                              |                                                                                                                                             |                     |       | 122  |       | g                                |
| Outline                              |                                                                     |                                                                                                                                             |                     |       |      |       |                                  |

### OUTLINE DRAWING & CIRCUIT DIAGRAM

SKKT :



## Rating and Characteristic

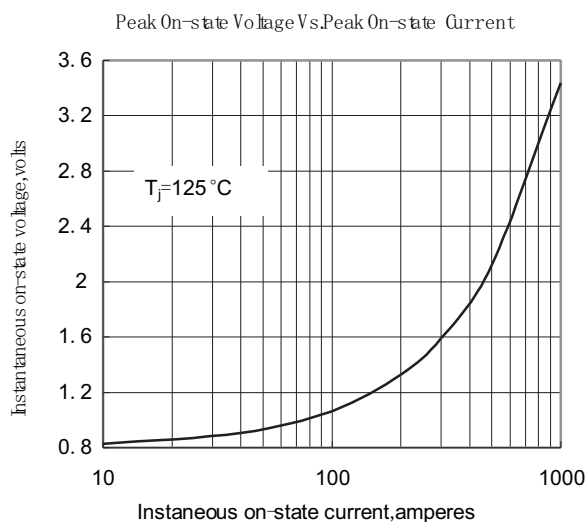


Fig. 1

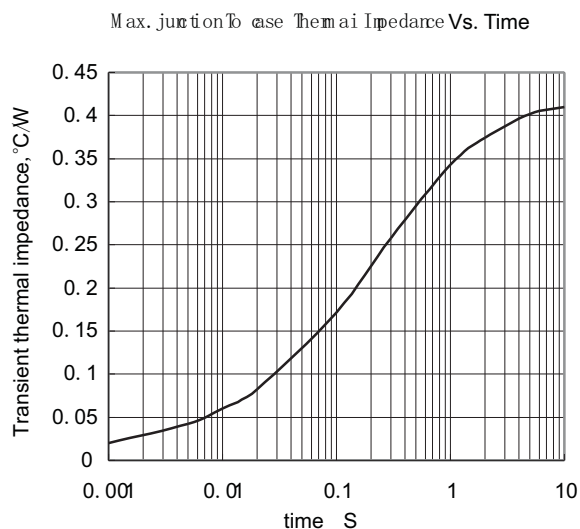


Fig. 2

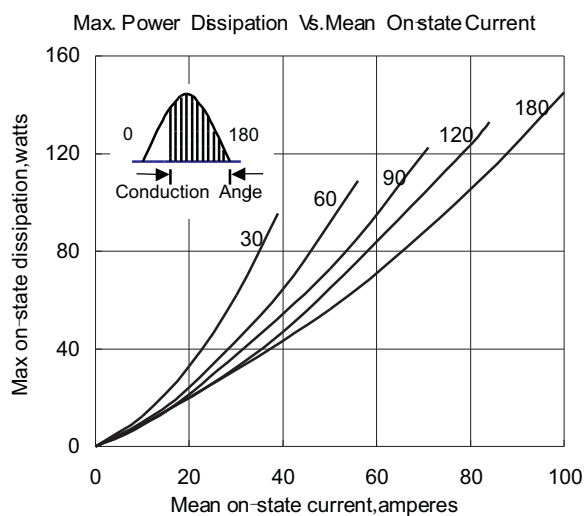


Fig. 3

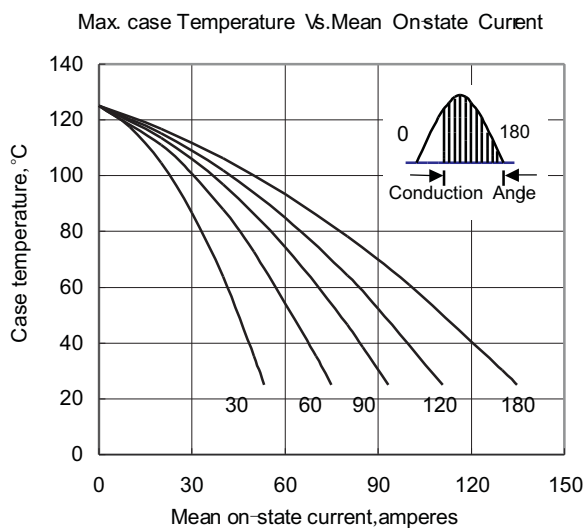


Fig. 4

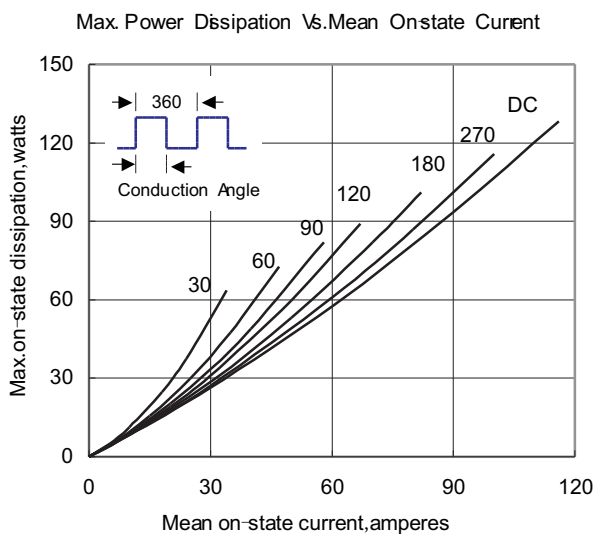


Fig. 5

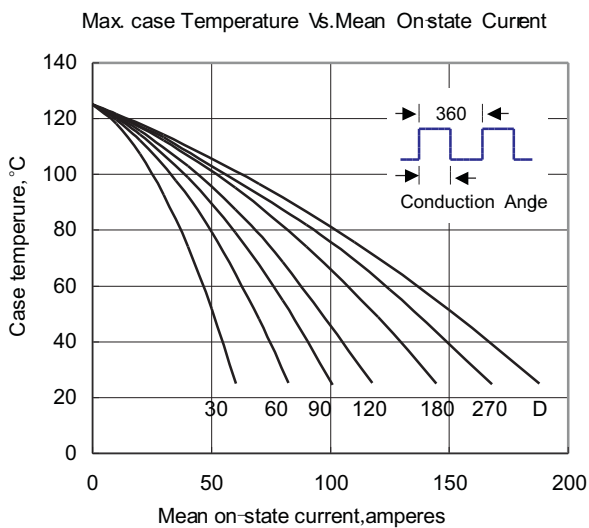


Fig. 6

## Rating and Characteristic

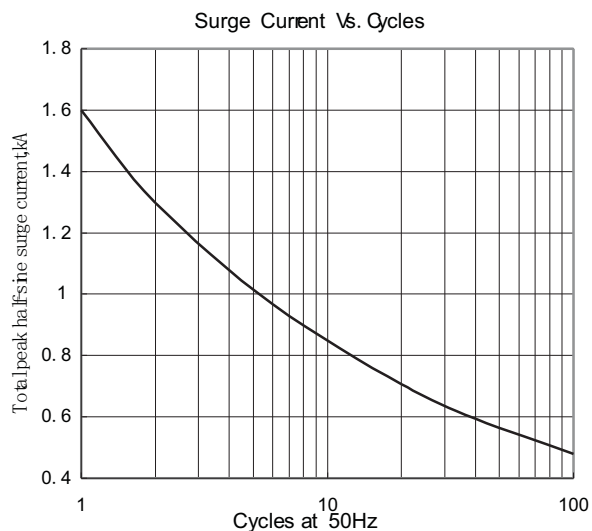


Fig. 7

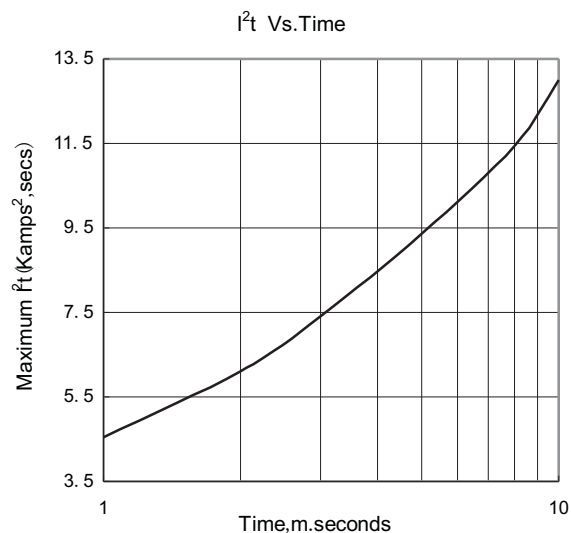


Fig. 8

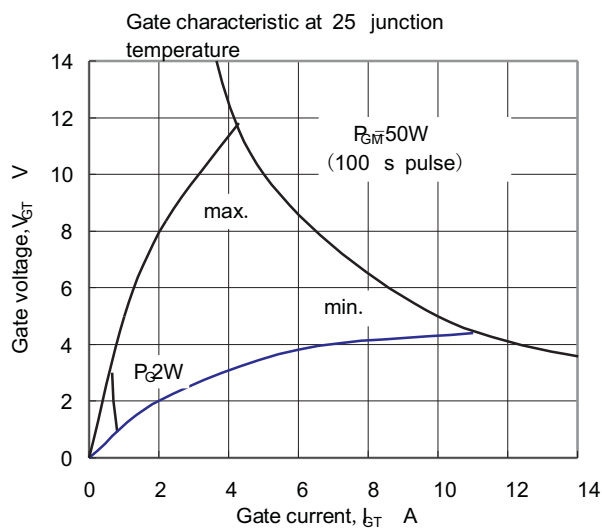


Fig. 9

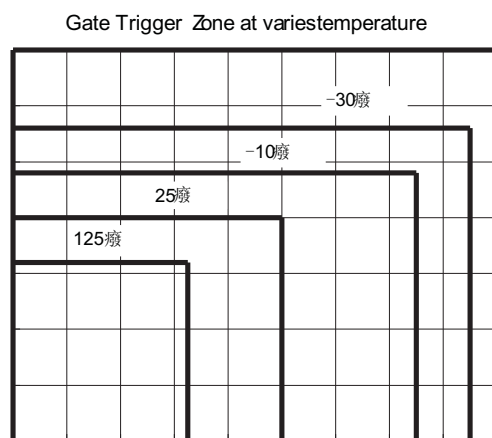


Fig. 10

## Outside Dimension

