



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：整流管模块

产品型号：MDC500A-Y05

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

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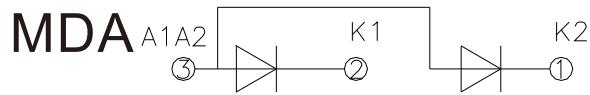
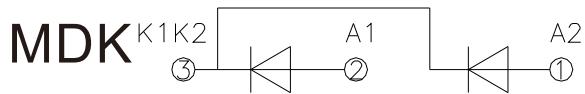
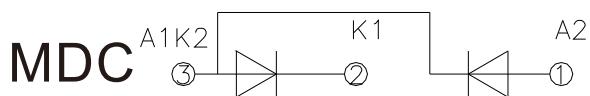
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| 拟制  | 审核  | 核准 |
|-----|-----|----|
| 林益龙 | 曹剑龙 | 宗瑞 |

| SYMBOL        | CHARACTERISTIC                             | TEST CONDITIONS   | $T_j$ (°C) | VALUE |      |       | UNIT                             |
|---------------|--|---|------------|-------|------|-------|----------------------------------|
|               |  |   |            | Min   | Type | Max   |                                  |
| $I_{F(AV)}$   | Mean for ward current                      | 180° half sine wave 50Hz<br>Single side cooled, $T_C=100^\circ\text{C}$ | 150        |       |      | 500   | A                                |
| $I_{F(RMS)}$  | RMS for ward current                       | Single side cooled, $T_C=100^\circ\text{C}$                             | 150        |       |      | 785   | A                                |
| $V_{RRM}$     | Repetitive peak reverse voltage            | $V_{RRM}$ tp=10ms<br>$V_{RsM} = V_{DRM} \& V_{RRM} + 200\text{V}$       | 150        | 600   |      | 1800  | V                                |
| $I_{RRM}$     | Repetitive peak current                    | at $V_{RRM}$  | 150        |       |      | 40    | mA                               |
| $I_{FSM}$     | Surge forward current                      | 10ms half sine wave   | 150        |       |      | 16.0  | KA                               |
| $I^2t$        | $I^2T$ for fusing coordination             | $V_R=0.6V_{RRM}$  |            |       |      | 1280  | $\text{A}^2\text{s} \times 10^3$ |
| $V_{FO}$      | Threshold voltage                          |   | 150        |       |      | 0.75  | V                                |
| $r_F$         | Forward slop resistance                    |   |            |       |      | 0.32  | $\text{m}\Omega$                 |
| $V_{FM}$      | Peak forward voltage                       | $I_{FM}=1500\text{A}$   | 25         |       |      | 1.10  | V                                |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to heatsink | At 180° sine Single side cooled   |            |       |      | 0.090 | °C /W                            |
| $V_{iso}$     | Isolation voltage                          | 50Hz, RM. S, t=1min, $I_{iso}: 1\text{mA}$ (max)                        |            | 2500  |      |       | V                                |
| $F_m$         | Terminal connection torque( M10)           |   |            |       | 9.0  |       | N.m                              |
|               | Mounting torque( M6)                       |   |            |       | 5.0  |       | N.m                              |
| $T_{Stg}$     | Stored temperature                         |   |            | -40   |      | 125   | °C                               |
| $W_t$         | Weight                                     |   |            |       |      |       | g                                |
| Outline       |  |   |            |       |      |       |                                  |

## OUTLINE DRAWING & CIRCUIT DIAGRAM



## Rating and Characteristic

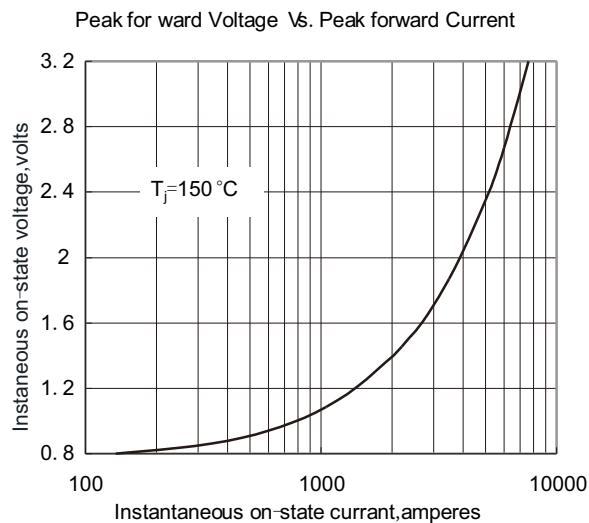


Fig. 1

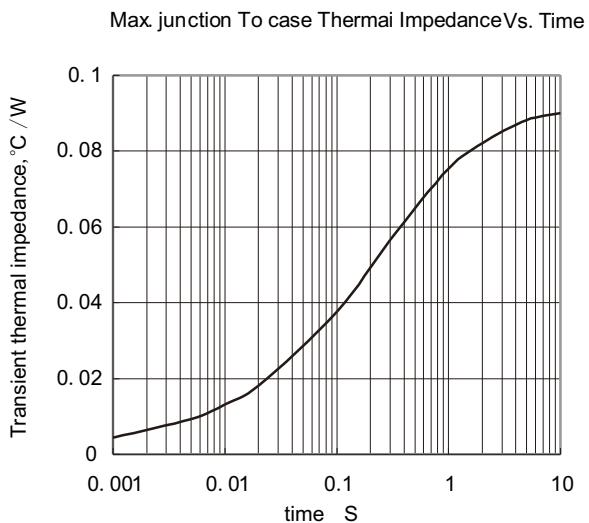


Fig. 2

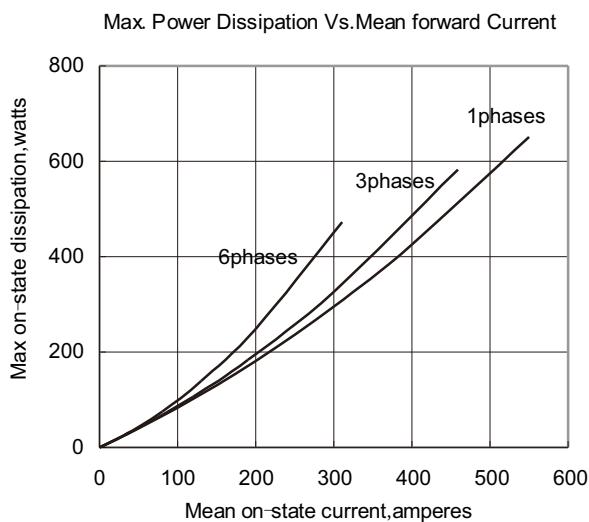


Fig. 3

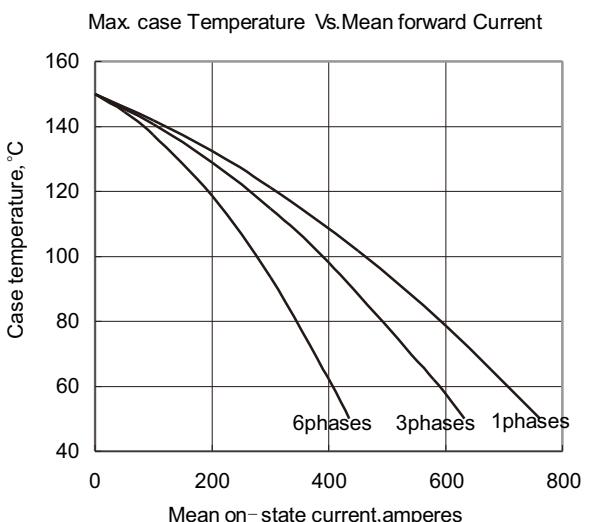


Fig. 4

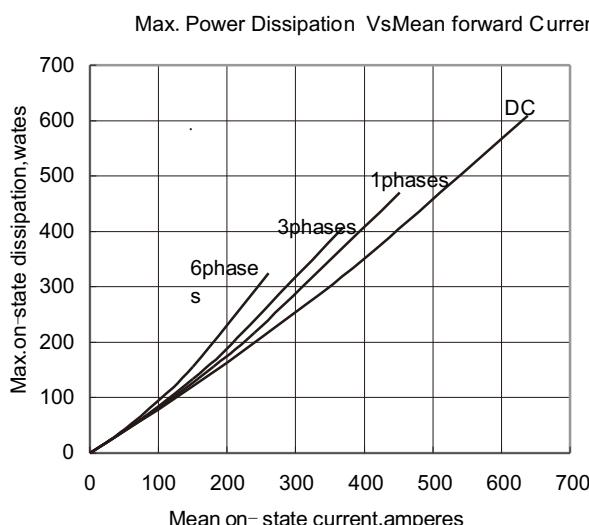


Fig. 5

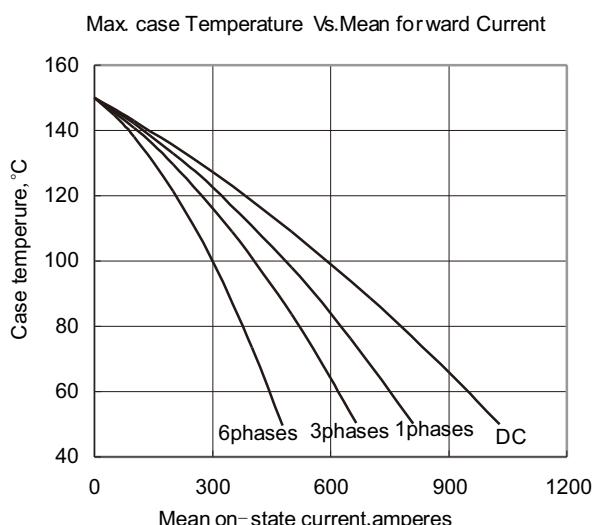


Fig. 6

## Outside Dimension

