



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：MDC160A-T05

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

地址：浙江省 丽水市 莲都区

电话：(0578) 3012571 3615078

传真：(0578) 3611180

邮编：323000

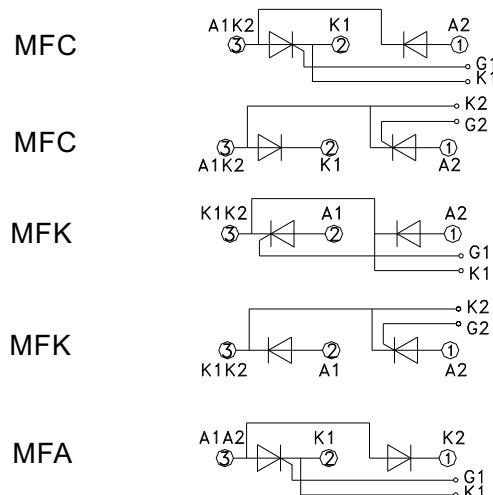
E-mail: smrshiling01@163.com

[Http://www.smrshiling.com](http://www.smrshiling.com)

| 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°C | 125 | | | 160 | A |
| I _{T(RMS)} | RMS on-state current | Single side cooled, T _c = 85°C | 125 | | | 251 | A |
| V _{DRM} V _{RRM} | Repetitive peak off-state voltage Repetitive peak reverse voltage | V _{DRM} &V _{RRM} tp=10ms V _{DsM} &V _{RsM} = V _{DRM} &V _{RRM} +200V respectively | 125 | 600 | | 2200 | V |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 20 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 5.40 | KA |
| I ² t | I ² T for fusing coordination | V _R =60%V _{RRM} | | | | 149 A ² s*10 ³ | |
| V _{TO} | Threshold voltage | | 125 | | | 0.8 | V |
| r _T | On-state slop resistance | | | | | 1.69 mΩ | |
| V _{TM} | Peak on-state voltage | I _{TM} =480A | 125 | | | 1.1 | V |
| dv/dt | Critical rate of rise of off-state voltage | V _{DM} =67%V _{DRM} | 125 | | | 800 V/ μs | |
| di/dt | Critical rate of rise of on-state current | From 67%V _{DRM} to 480A, Gate source 1.5A t _r ≤ 0.5 μs Repetitive | 125 | | | 100 A/ μs | |
| I _{GT} | Gate trigger current | | 25 | 30 | | 150 mA | |
| V _{GT} | Gate trigger voltage | V _A =12V, I _A =1A | | 0.8 | | 2.0 V | |
| I _H | Holding current | | | 20 | | 100 mA | |
| V _{GD} | Non-trigger gate voltage | At 67%V _{DRM} | 125 | | | 0.2 V | |
| R _{th(j-c)} | Thermal resistance Junction to heatsink | At 180° sine Single side cooled | | | | 0.170 °C /W | |
| V _{iso} | Isolation voltage | 50Hz, RM. S, t=1min, I _{iso} : 1mA (MAX) | 2500 | | | | V |
| F _m | Thermal connection torque(M6) | | | | 5.0 | | N.m |
| | Mounting torque(M6) | | | | 5.0 | | N.m |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _t | Weight | | | | 220 | | g |
| Outline | | | | | | | |

OUTLINE DRAWING & CIRCUIT DIAGRAM



Rating and Characteristic

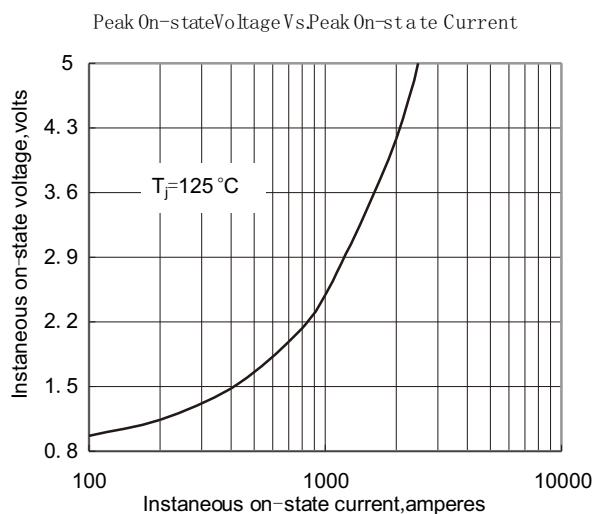


Fig. 1

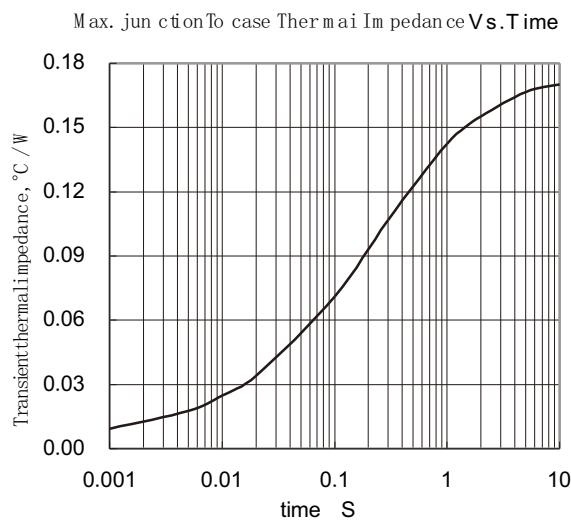


Fig. 2

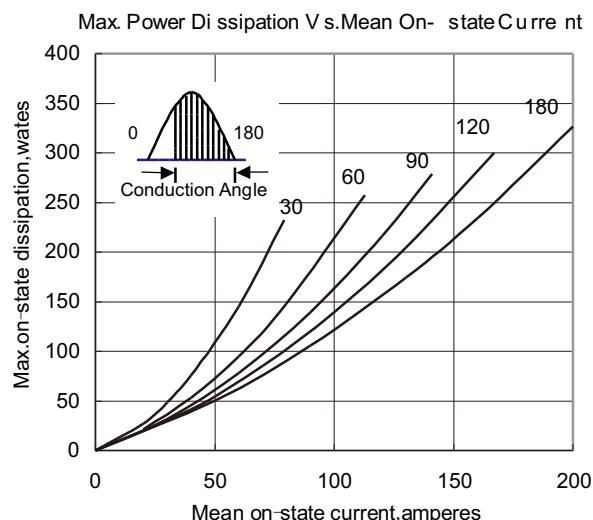


Fig. 3

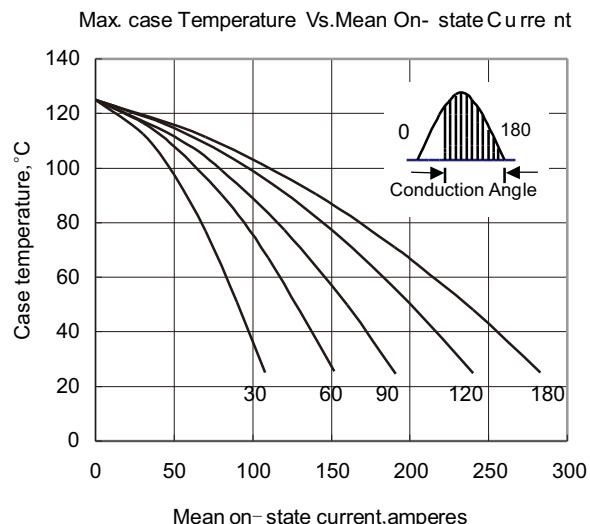


Fig. 4

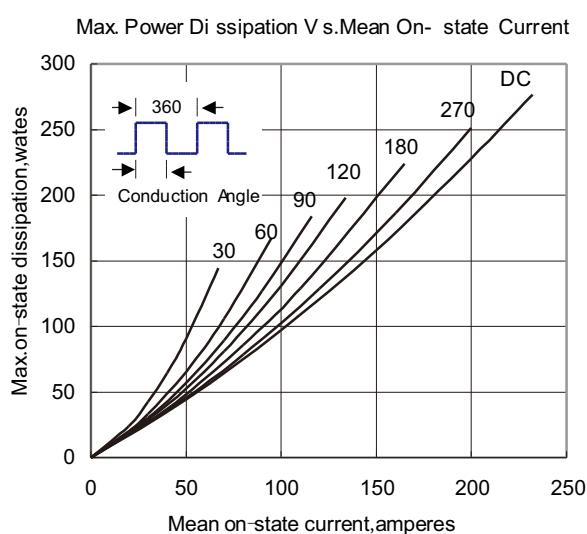


Fig. 5

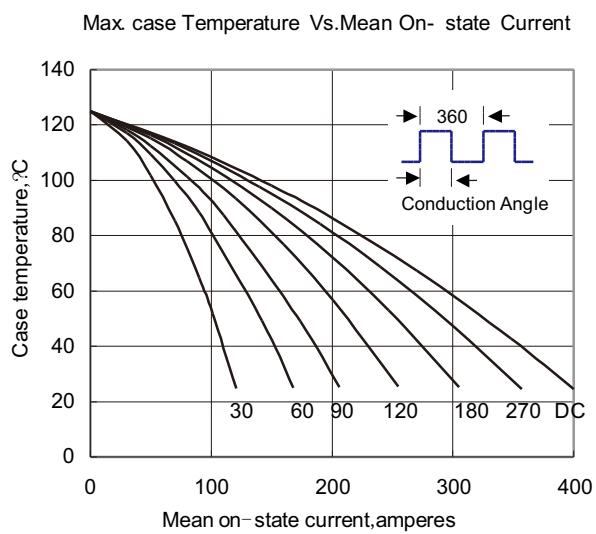


Fig. 6

Rating and Characteristic

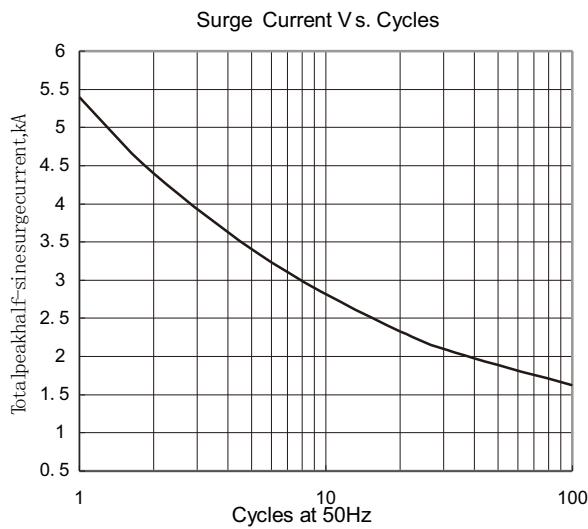


Fig. 7

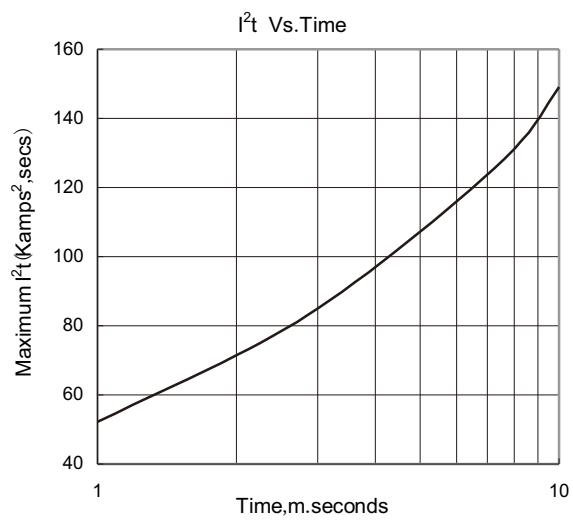


Fig. 8

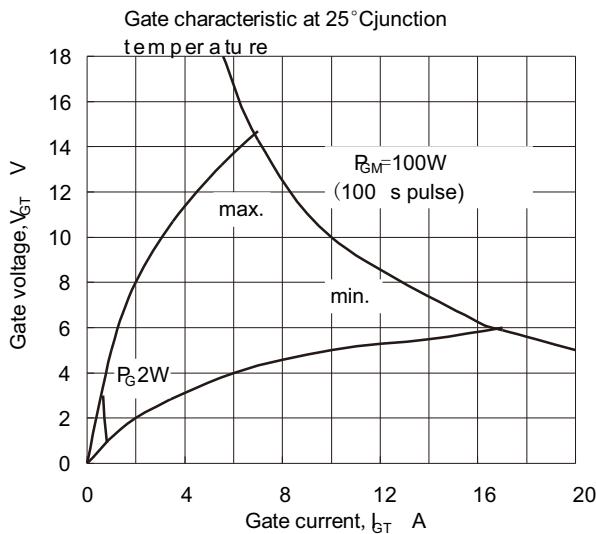


Fig. 9

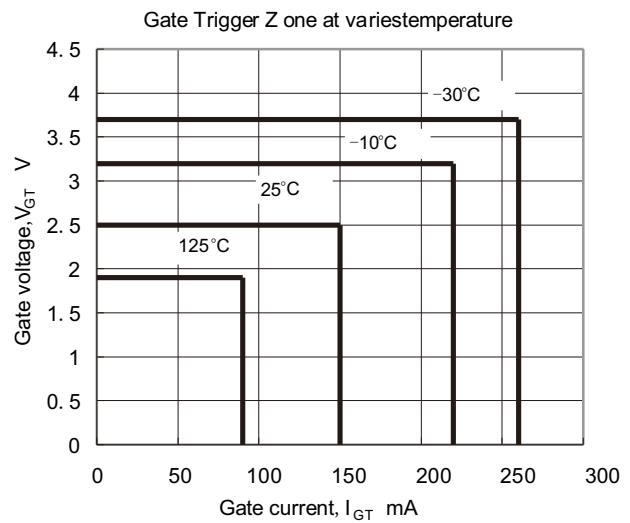


Fig. 10

Outside Dimension

