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

# 产品规格书

## Specifcation of products

产品名称:整流管模块

产品型号:MDK55A/3000V-Y01

浙江世菱半导体有限公司
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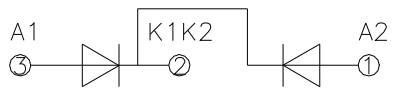
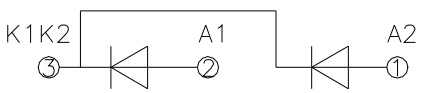
| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_j$(℃) | VALUE | | | UNIT |
|---|---|---|---|---|---|---|---|
| | | | | Min | Type | Max | |
| $I_{F(AV)}$ | Mean forward current | 180° half sine wave 50Hz<br>Single side cooled, $T_C$=100°C | 150 | | | 55 | A |
| $I_{F(RMS)}$ | RMS forward current | Single side cooled, $T_C$=100°C | 150 | | | 86 | A |
| $V_{RRM}$ | Repetitive peak reverse voltage | $V_{RRM}$ tp=10ms<br>$V_{RSM}$= $V_{DRM}$&$V_{RRM}$+200V | 150 | | 3000 | | V |
| $I_{RRM}$ | Repetitive peak current | at $V_{RRM}$ | 150 | | | 8 | mA |
| $I_{FSM}$ | Surge forward current | 10ms half sine wave<br>$V_R$=0.6$V_{RRM}$ | 150 | | | 1.32 | KA |
| $I^2t$ | $I^2T$ for fusing coordination | | | | | 8.6 | $A^2s*10^3$ |
| $V_{FO}$ | Threshold voltage | | 150 | | | 0.80 | V |
| $r_F$ | Forward slop resistance | | | | | 3.4 | mΩ |
| $V_{FM}$ | Peak forward voltage | $I_{FM}$=170A | 25 | | | 1.40 | V |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to heatsink | At 180° sine, Single side cooled | | | | 0.120 | °C /W |
| $V_{iso}$ | Isolation voltage | 50Hz, R.M.S, t=1min, $I_{iso}$: 1mA(max) | | 4000 | | | V |
| $F_m$ | Terminal connection torque( M6) | | | | 5.0 | | N.m |
| | Mounting torque( M6) | | | | 5.0 | | N.m |
| $T_{stg}$ | Stored temperature | | | -40 | | 125 | °C |
| $W_t$ | Weight | | | | 400 | | g |
| Outline | | | | | | | |

OUTLINE DRAWING & CIRCUIT DIAGRAM

MDK




MDK-1



## Rating and Characteristic

Peak forward Voltage Vs. Peak forward Current

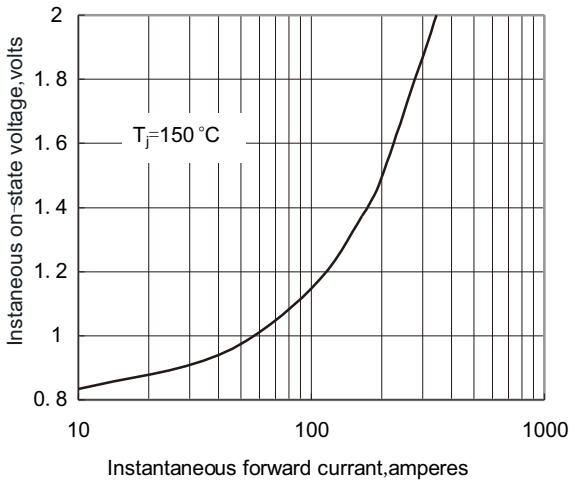



Fig. 1

Max. junction To case Thermai Impedance Vs. Time

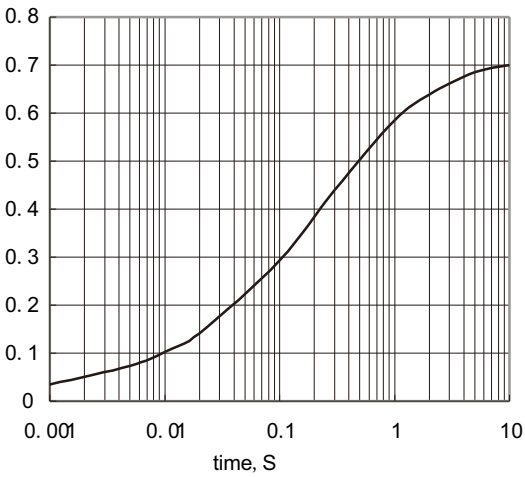



Fig. 2

Max. Power Dissipation Vs.Mean forward Current

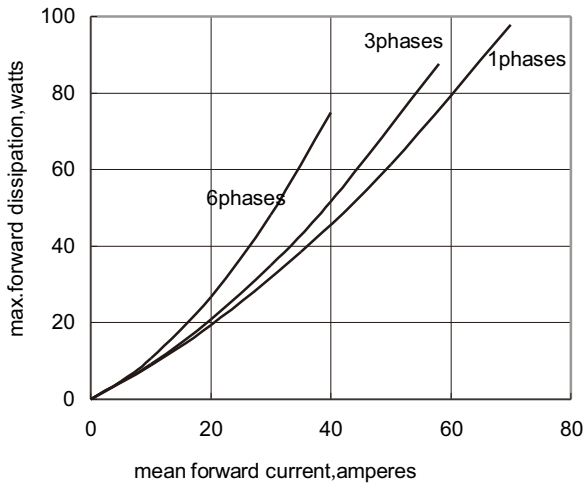



Fig. 3

Max. case Temperature Vs.Mean forward Current

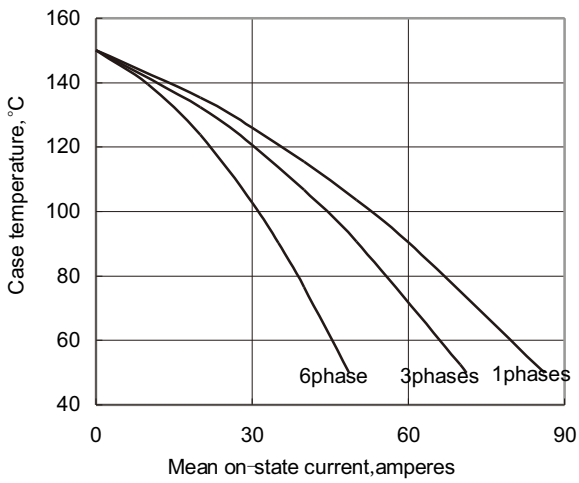



Fig. 4

Max. Power Dissipation VsMean forward Current

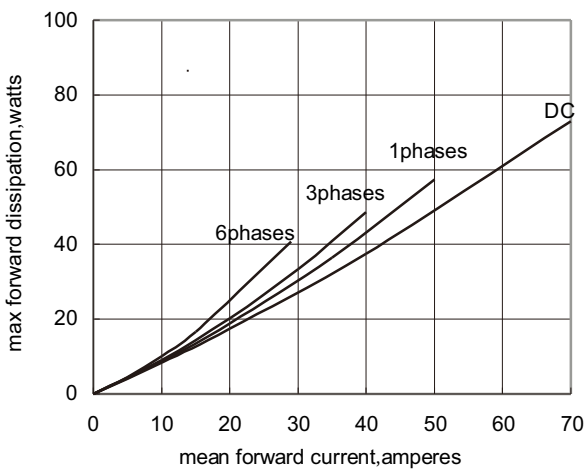



Fig. 5

Max. case Temperature Vs.Mean forward Current

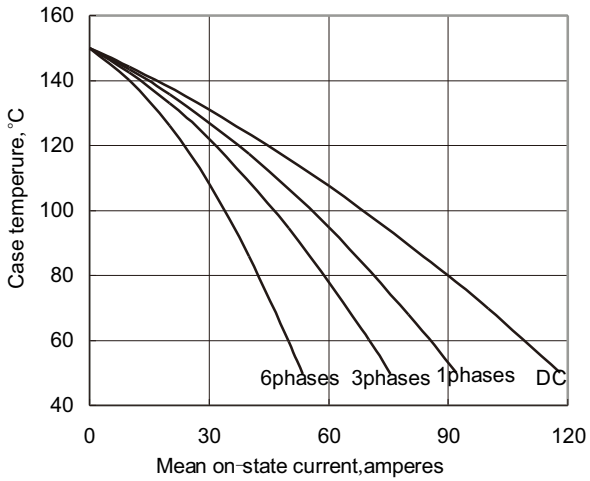



Fig. 6

# Outside Dimension