

产品规格书

Specification of products

产品名称: 可控硅模块

产品型号: MFC40A-T01

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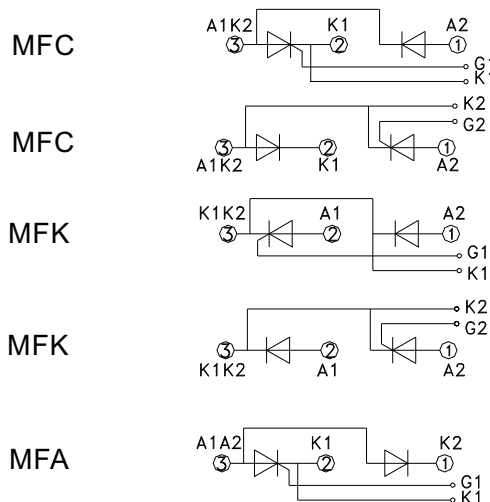
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| 拟制 | 审核 | 核准 |
| 林益龙 | 曹剑龙 | 宗瑞 |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | T _j (°C) | VALUE | | | UNIT |
|--|--|---|---------------------|-------|------|-------|----------------------------------|
| | | | | Min | Type | Max | |
| I _{T(AV)} I _{F(AV)} | Mean on-state current | 180° half sine wave 50Hz Single side cooled, T _C =85°C | 125 | | | 40 | A |
| I _{T(RMS)} | RMS on-state current | Single side cooled, T _C =85°C | 125 | | | 63 | 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 | | 1800 | V |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 8 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 1.00 | KA |
| I ² t | I ² T for fusing coordination | V _R =60%V _{RRM} | | | | 5.10 | A ² s*10 ³ |
| V _{TO} | Threshold voltage | | 125 | | | 0.85 | V |
| r _T | On-state slop resistance | | | | | 5.57 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =120A | 125 | | | 1.4 | 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 120A, Gate source 1.5A t _r ≤ 0.5 μs Repetitive | 125 | | | 50 | A/μs |
| I _{GT} | Gate trigger current | | | 20 | | 100 | mA |
| V _{GT} | Gate trigger voltage | V _A =12V, I _A =1A | 25 | 0.7 | | 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 | | | | 0.650 | °C /W |
| V _{iso} | Isolation voltage | 50Hz, RM. S, t=1min, I _{iso} : 1mA (MAX) | | 2500 | | | V |
| F _m | Thermal connection torque (M5) | | | | | 4.0 | N.m |
| | Mounting torque (M6) | | | | | 5.0 | N.m |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _t | Weight | | | | | 110 | g |
| Outline | | | | | | | |

OUTLINE DRAWING & CIRCUIT DIAGRAM



Rating and Characteristic

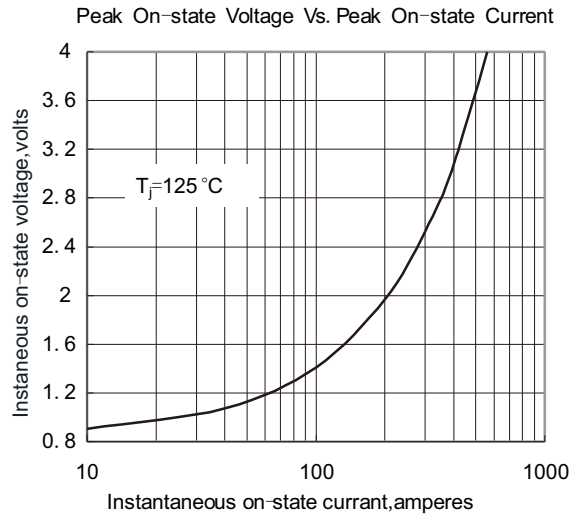


Fig. 1

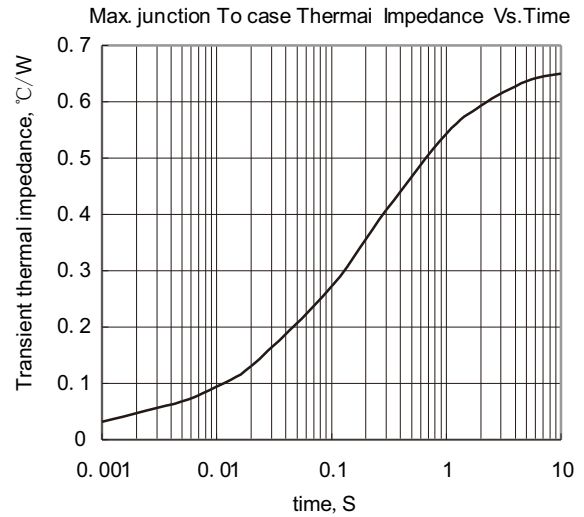


Fig. 2

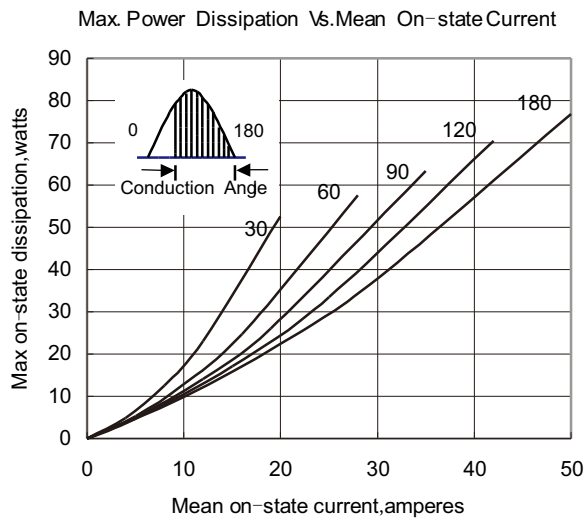


Fig. 3

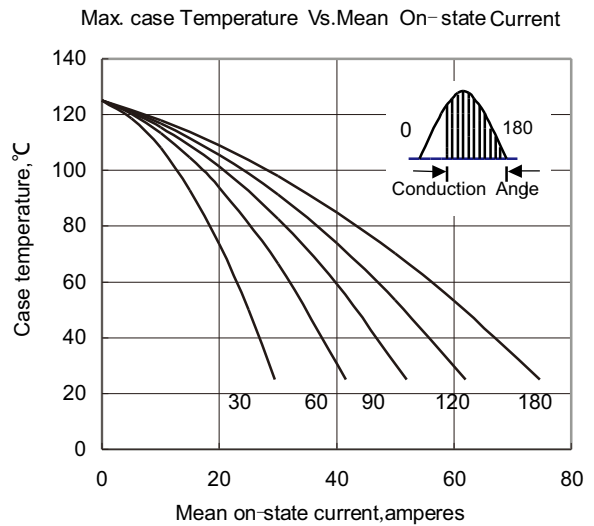


Fig. 4

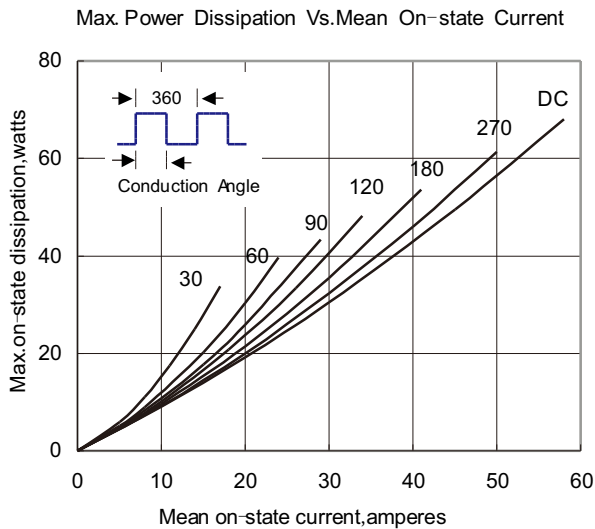


Fig. 5

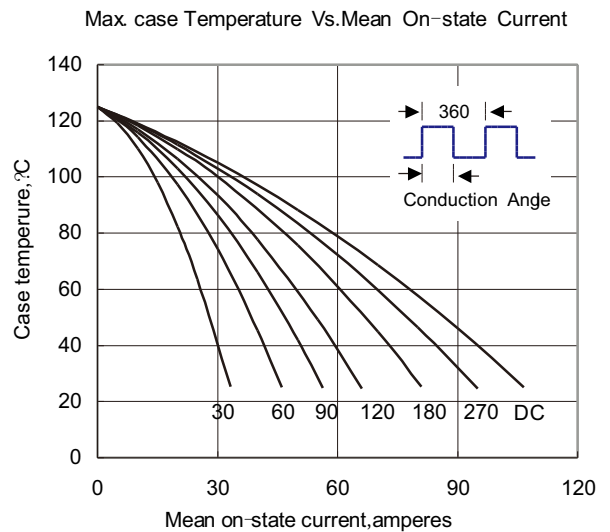


Fig. 6

Rating and Characteristic

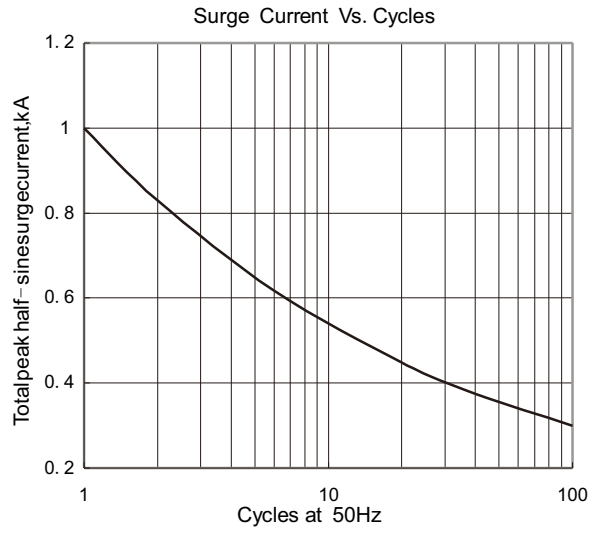


Fig. 7

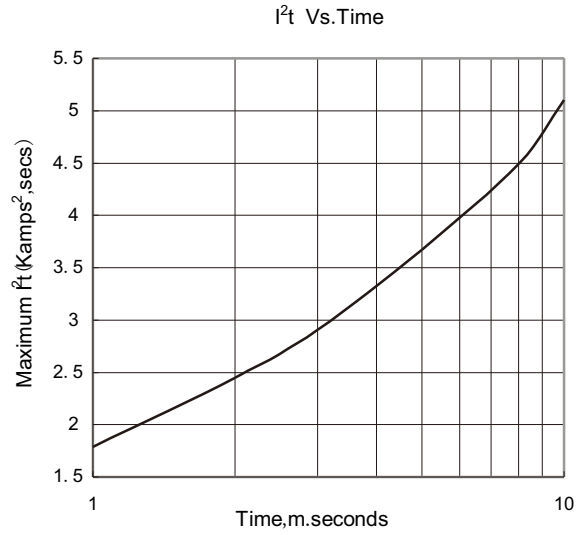


Fig. 8

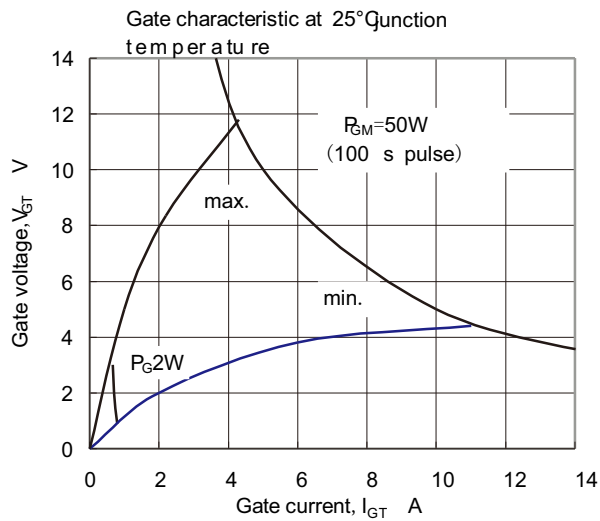


Fig. 9

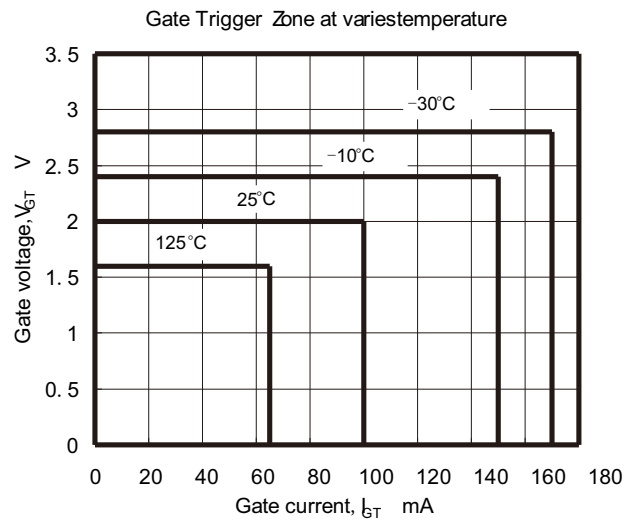


Fig. 10

Outside Dimension

