

Features :

- Isolated mounting base 3000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

Typical Applications

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

| V_{DSM}, V_{RSM} | V_{DRM}, V_{RRM} | 品名 |
|--------------------|--------------------|------------|
| 900V | 800V | Mx135TH80 |
| 1100V | 1000V | Mx135TH100 |
| 1300V | 1200V | Mx135TH120 |
| 1500V | 1400V | Mx135TH140 |
| 1700V | 1600V | Mx135TH160 |
| 1900V | 1800V | Mx135TH180 |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_j(^{\circ}\text{C})$ | VALUE | | | UNIT |
|------------------------|--|--|-------------------------|-------|------|------|----------------------------------|
| | | | | Min | Type | Max | |
| $I_{T(AV)}$ | Mean on-state current | 180° half sine wave 50Hz Single side cooled, $T_c=85^{\circ}\text{C}$ | 125 | | | 135 | A |
| $I_{T(RMS)}$ | RMS on-state current | | | | | 212 | A |
| 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 $V_R=60\%V_{RRM}$ | 125 | | | 3.6 | kA |
| I^2t | I^2t for fusing coordination | | | | | 65 | $\text{A}^2\text{s} \times 10^3$ |
| V_{TO} | Threshold voltage | | 125 | | | 0.80 | V |
| r_T | On-state slope resistance | | | | | 2.60 | $\text{m}\Omega$ |
| V_{TM} | Peak on-state voltage | $I_{TM}=410\text{A}$ | | 25 | | 1.75 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}=67\%V_{DRM}$ | 125 | | | 1000 | $\text{V}/\mu\text{s}$ |
| di/dt | Critical rate of rise of on-state current | Gate source 1.5A $t_r \leq 0.5\mu\text{s}$ Repetitive | 125 | | | 200 | $\text{A}/\mu\text{s}$ |
| I_{GT} | Gate trigger current | $V_A=12\text{V}$, $I_A=1\text{A}$ | 25 | 30 | | 150 | mA |
| V_{GT} | Gate trigger voltage | | | 0.8 | | 2.5 | V |
| I_H | Holding current | | | 10 | | 120 | mA |
| V_{GD} | Non-trigger gate voltage | $V_{DM}=67\%V_{DRM}$ | 125 | 0.2 | | | V |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | Single side cooled per chip | | | | 0.18 | $^{\circ}\text{C}/\text{W}$ |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.06 | $^{\circ}\text{C}/\text{W}$ |
| V_{iso} | Isolation voltage | 50Hz,R.M.S., $t=1\text{min}$, $I_{iso}=1\text{mA}(\text{MAX})$ | | 3000 | | | V |
| F_m | Terminal connection torque(M6) | | | 3.5 | | 5.0 | $\text{N}\cdot\text{m}$ |
| | Mounting torque(M6) | | | | 6.0 | | $\text{N}\cdot\text{m}$ |
| T_{vj} | Junction temperature | | | -40 | | 125 | $^{\circ}\text{C}$ |
| T_{stg} | Stored temperature | | | -40 | | 125 | $^{\circ}\text{C}$ |
| W_t | Weight | | | | 320 | | g |
| Outline | | M02 | | | | | |

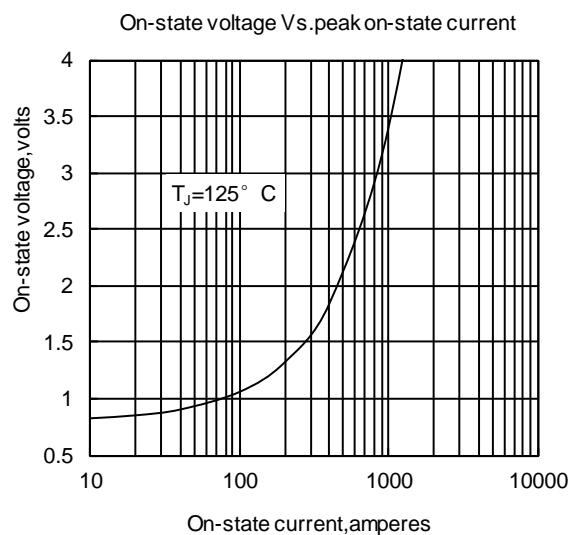


Fig1

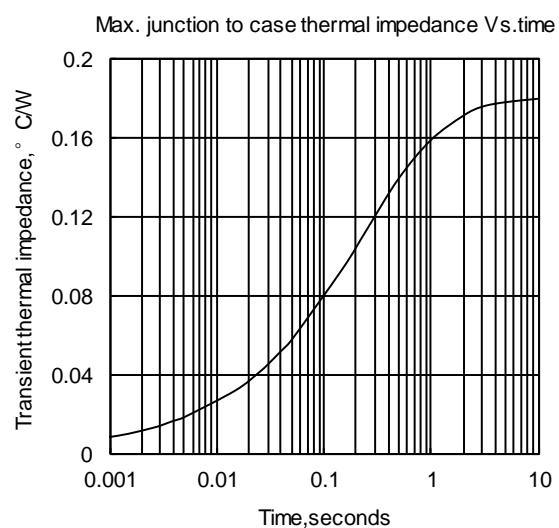


Fig2

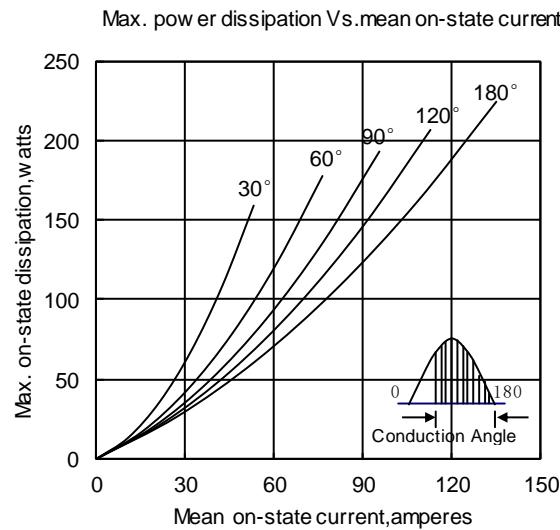


Fig3

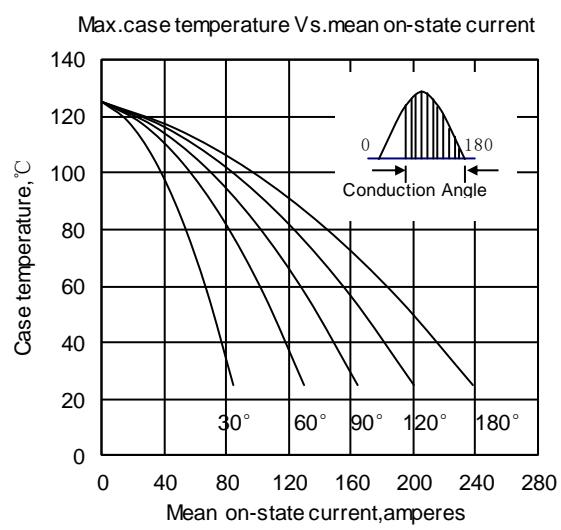


Fig4

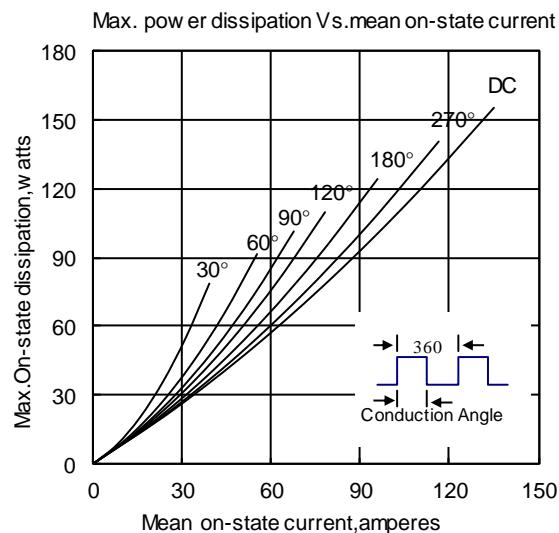


Fig5

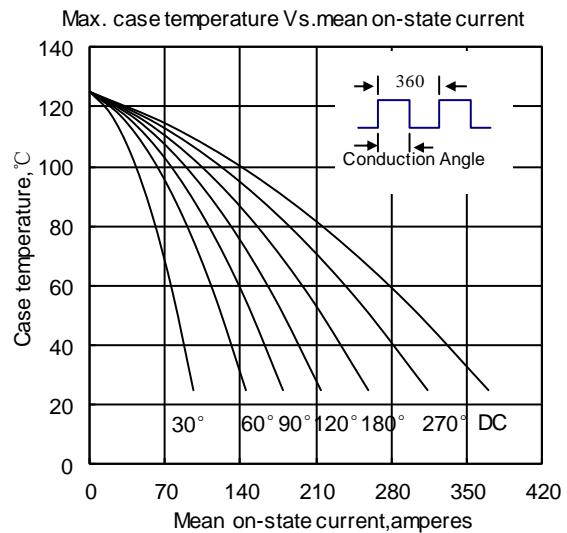


Fig6

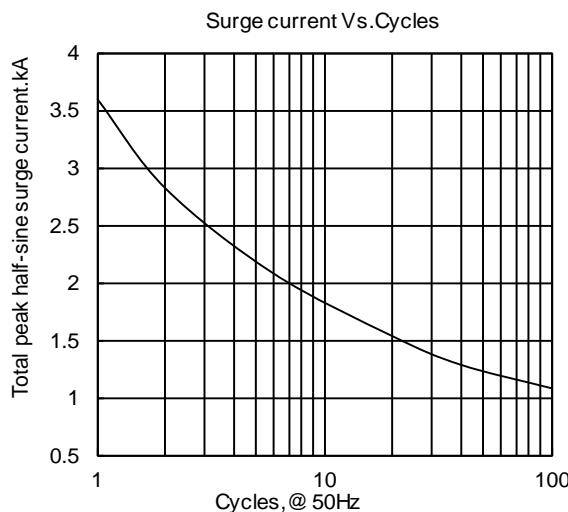


Fig7

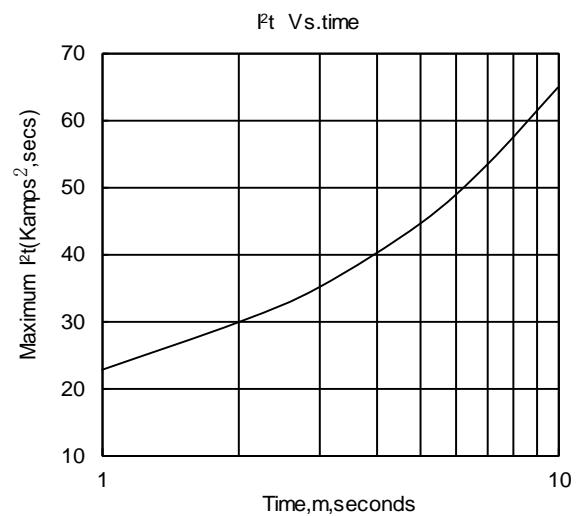


Fig8

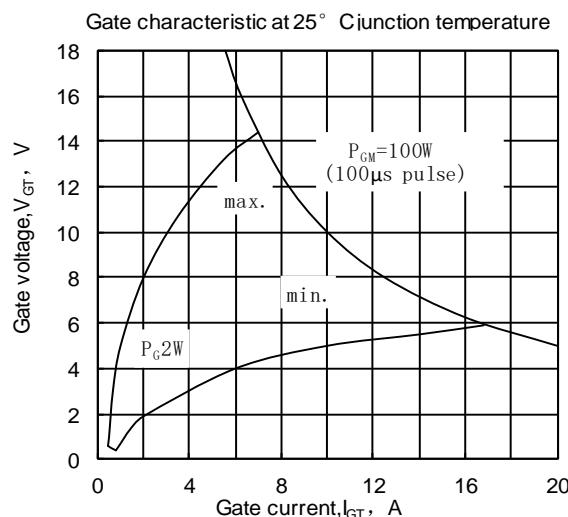


Fig9

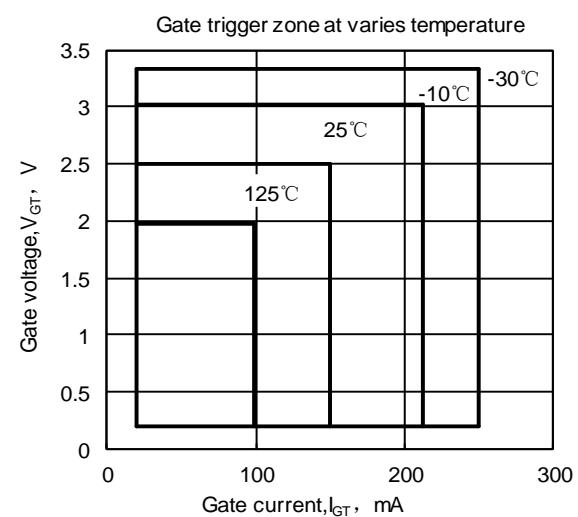
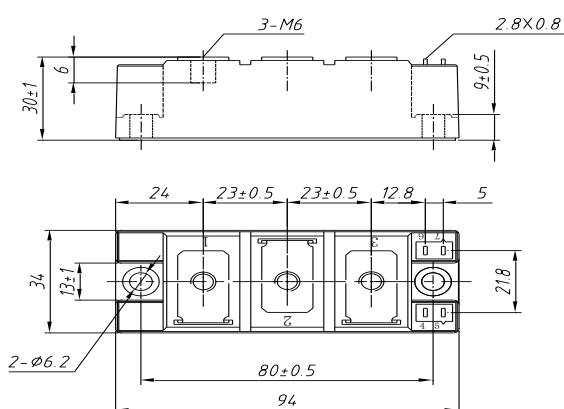


Fig10



MR135TH**

MC135TH**

