

**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               | Mx570T80  |
| 1100V              | 1000V              | Mx570T100 |
| 1300V              | 1200V              | Mx570T120 |
| 1500V              | 1400V              | Mx570T140 |
| 1700V              | 1600V              | Mx570T160 |
| 1900V              | 1800V              | Mx570T180 |

| SYMBOL                 | CHARACTERISTIC                             | TEST CONDITIONS  | $T_J(^{\circ}\text{C})$ | VALUE |      |       | UNIT                             |
|------------------------|--|--|-------------------------|-------|------|-------|----------------------------------|
|                        |  |  |                         | Min.  | Typ. | Max.  |                                  |
| $I_{T(AV)}$            | Mean on-state current                      | 180° half sine wave 50Hz<br>Single side cooled, $T_c=85^{\circ}\text{C}$ | 125                     |       |      | 570   | A                                |
| $I_{T(RMS)}$           | RMS on-state current                       |  |                         |       |      | 895   | A                                |
| $I_{DRM}$<br>$I_{RRM}$ | Repetitive peak current                    | at $V_{DRM}$<br>at $V_{RRM}$   | 125                     |       |      | 35    | mA                               |
| $I_{TSM}$              | Surge on-state current                     | 10ms half sine wave<br>$V_R=60\%V_{RRM}$                                 | 125                     |       |      | 15    | kA                               |
| $I^2t$                 | $I^2t$ for fusing coordination             |  |                         |       |      | 1125  | $\text{A}^2\text{s} \times 10^3$ |
| $V_{TO}$               | Threshold voltage                          |  | 125                     |       |      | 0.80  | V                                |
| $r_T$                  | On-state slope resistance                  |  |                         |       |      | 0.30  | mΩ                               |
| $V_{TM}$               | Peak on-state voltage                      |  |                         | 25    |      | 1.45  | V                                |
| $dv/dt$                | Critical rate of rise of off-state voltage | $V_{DM}=67\%V_{DRM}$   | 125                     |       |      | 1000  | V/μs                             |
| $di/dt$                | Critical rate of rise of on-state current  | Gate source 1.5A<br>$t_r \leq 0.5\mu\text{s}$ Repetitive                 | 125                     |       |      | 200   | A/μs                             |
| $I_{GT}$               | Gate trigger current                       | $V_A=12V, I_A=1A$  | 25                      | 30    |      | 200   | mA                               |
| $V_{GT}$               | Gate trigger voltage                       |  |                         | 0.8   |      | 3.0   | V                                |
| $I_H$                  | Holding current                            |  |                         | 10    |      | 200   | mA                               |
| $V_{GD}$               | Non-trigger gate voltage                   | $V_{DM}=67\%V_{DRM}$   | 125                     | 0.2   |      |       | V                                |
| $R_{th(j-c)}$          | Thermal resistance<br>Junction to case     | D.C. Single side cooled per chip   |                         |       |      | 0.065 | °C/W                             |
| $R_{th(c-h)}$          | Thermal resistance<br>case to heatsink     | D.C. Single side cooled per chip   |                         |       |      | 0.024 | °C/W                             |
| $V_{iso}$              | Isolation voltage                          | 50Hz,R.M.S,t=1min, $I_{iso}:1\text{mA}(\text{MAX})$                      |                         | 3000  |      |       | V                                |
| $F_m$                  | Terminal connection torque(M10)            |  |                         |       | 12.0 |       | N·m                              |
|                        | Mounting torque(M6)                        |  |                         |       | 6.0  |       | N·m                              |
| $T_{vj}$               | Junction temperature                       |  |                         | -40   |      | 125   | °C                               |
| $T_{stg}$              | Stored temperature                         |  |                         | -40   |      | 125   | °C                               |
| $W_t$                  | Weight                                     |  |                         |       | 1500 |       | g                                |
| Outline                |  | M06  |                         |       |      |       |                                  |

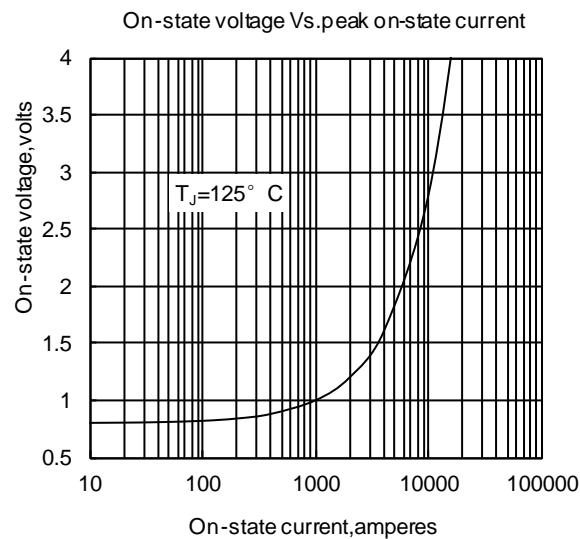


Fig1

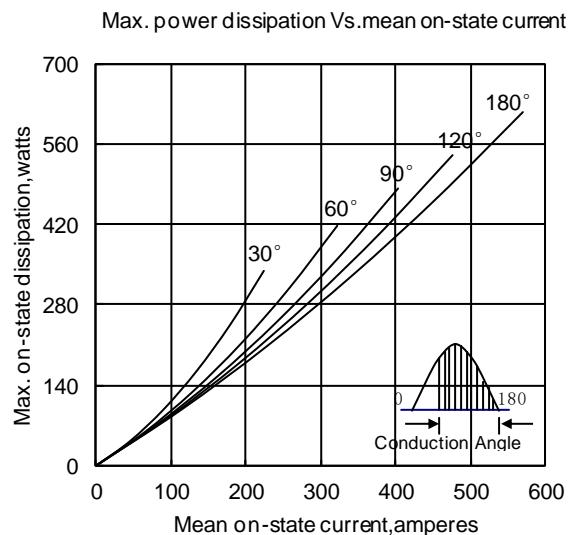


Fig3

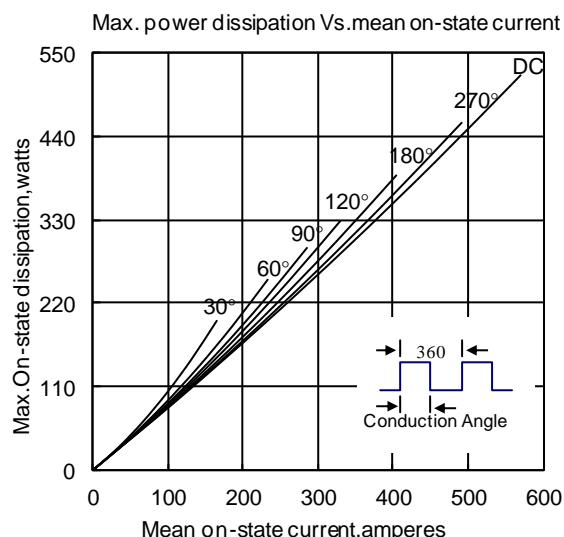


Fig5

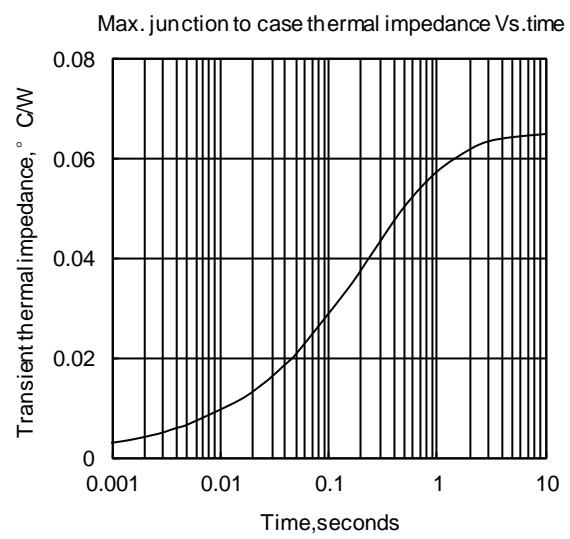


Fig2

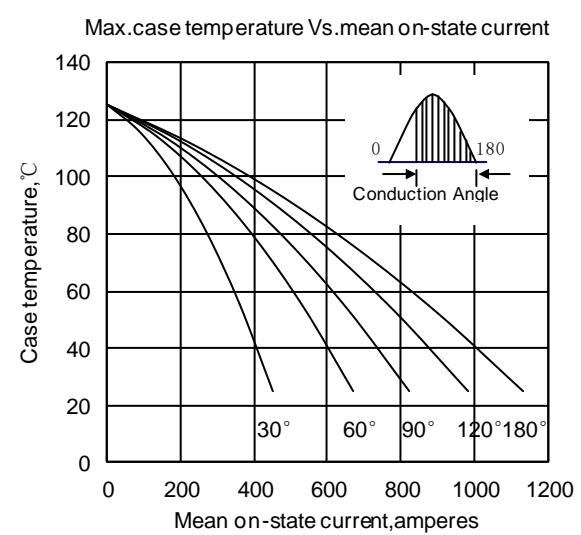


Fig4

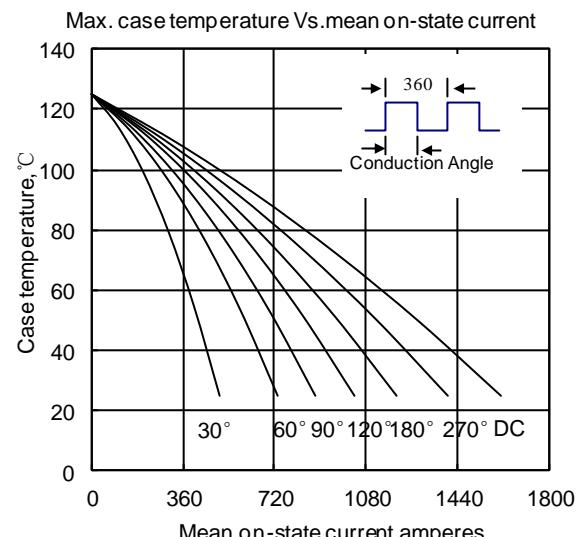


Fig6

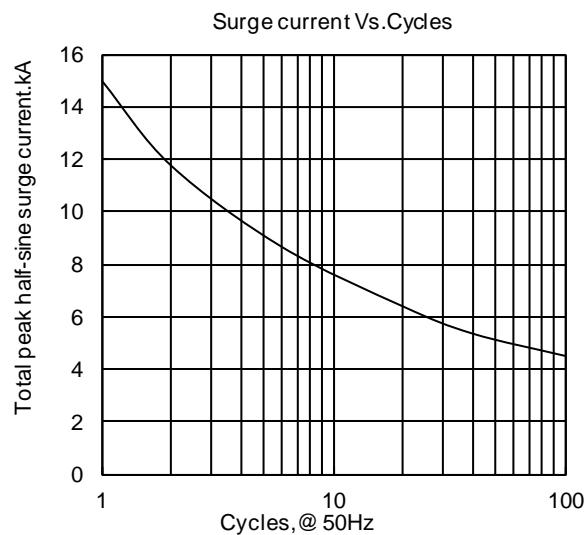


Fig7

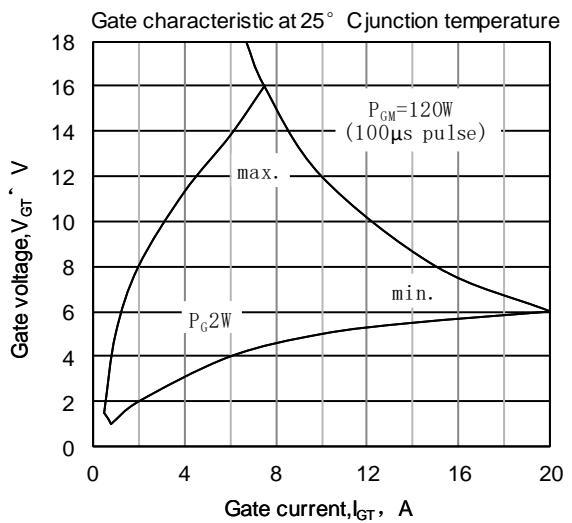


Fig8

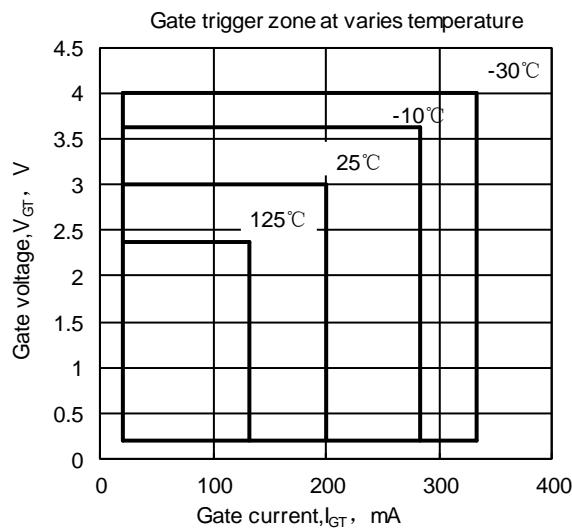
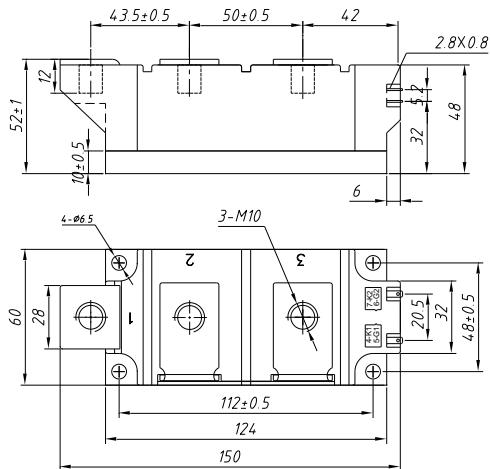


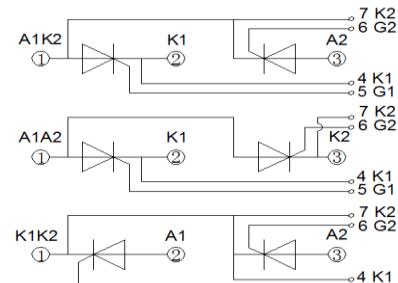
Fig9



MD570T\*\*

MR570T\*\*

MC570T\*\*

Unmarked dimensional tolerance :  $\pm 0.5\text{mm}$