

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 | Mx70T80 |
| 1100V | 1000V | Mx70T100 |
| 1300V | 1200V | Mx70T120 |
| 1500V | 1400V | Mx70T140 |
| 1700V | 1600V | Mx70T160 |
| 1900V | 1800V | Mx70T180 |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_j(^{\circ}C)$ | VALUE | | | UNIT |
|------------------------|--|---|------------------|-------|------|-------|-------------------|
| | | | | Min | Type | Max | |
| $I_{T(AV)}$ | Mean on-state current | 180° half sine wave 50Hz Single side cooled, $T_c=85^{\circ}C$ | 125 | | | 70 | A |
| $I_{T(RMS)}$ | RMS on-state current | | | | | 110 | A |
| I_{DRM} I_{RRM} | Repetitive peak current | at V_{DRM} at V_{RRM} | 125 | | | 10 | mA |
| I_{TSM} | Surge on-state current | 10ms half sine wave $V_R=60\%V_{RRM}$ | 125 | | | 1.50 | kA |
| I^2t | I^2t for fusing coordination | | | | | 11.25 | $A^2s \cdot 10^3$ |
| V_{TO} | Threshold voltage | | 125 | | | 0.80 | V |
| r_T | On-state slope resistance | | | | | 2.64 | m Ω |
| V_{TM} | Peak on-state voltage | $I_{TM}=210A$ | 25 | | | 1.50 | 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 $t_r \leq 0.5\mu s$ Repetitive | 125 | | | 200 | A/ μs |
| I_{GT} | Gate trigger current | $V_A=12V, I_A=1A$ | 25 | 30 | | 100 | 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 | | | | 0.41 | $^{\circ}C/W$ |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.20 | $^{\circ}C/W$ |
| V_{iso} | Isolation voltage | 50Hz, R.M.S, $t=1min, I_{iso}:1mA(MAX)$ | | 3000 | | | V |
| F_m | Terminal connection torque(M5) | | | 2.4 | | 3.0 | N·m |
| | Mounting torque(M6) | | | | 6.0 | | N·m |
| T_{vj} | Junction temperature | | | -40 | | 125 | $^{\circ}C$ |
| T_{stg} | Stored temperature | | | -40 | | 125 | $^{\circ}C$ |
| W_t | Weight | | | | 170 | | g |
| Outline | M01 | | | | | | |

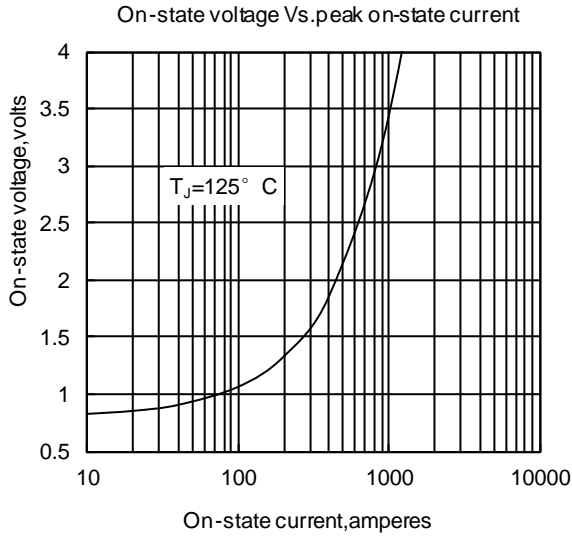


Fig1

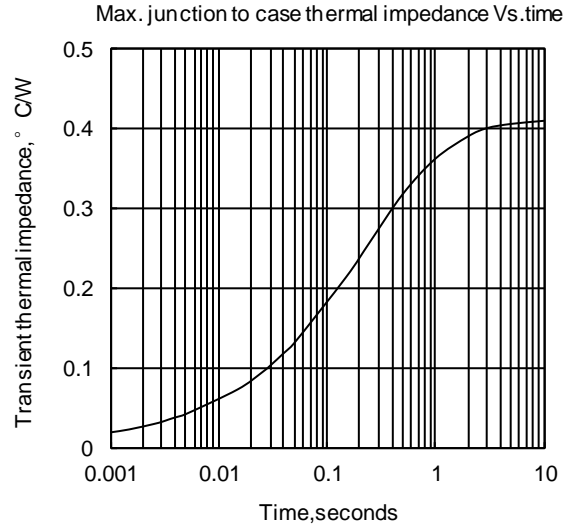


Fig2

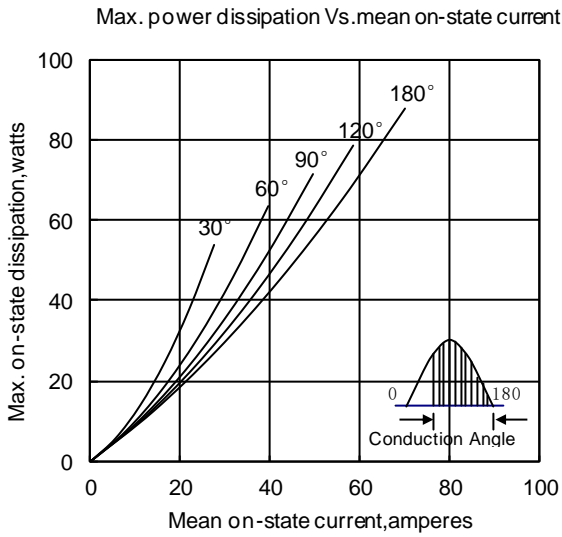


Fig3

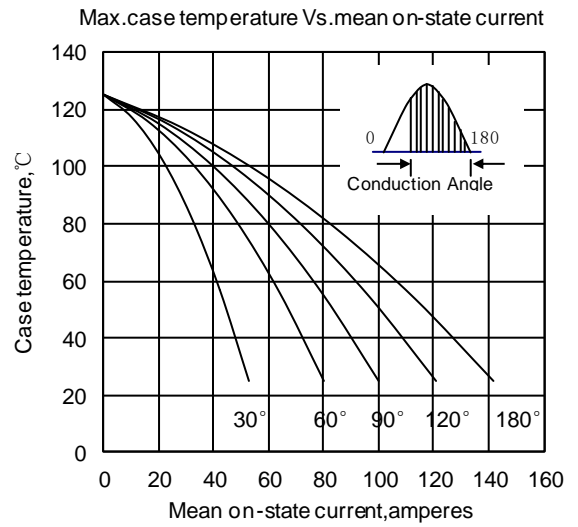


Fig4

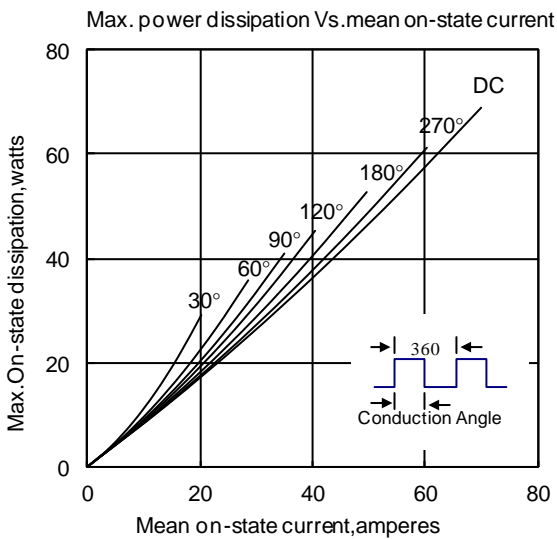


Fig5

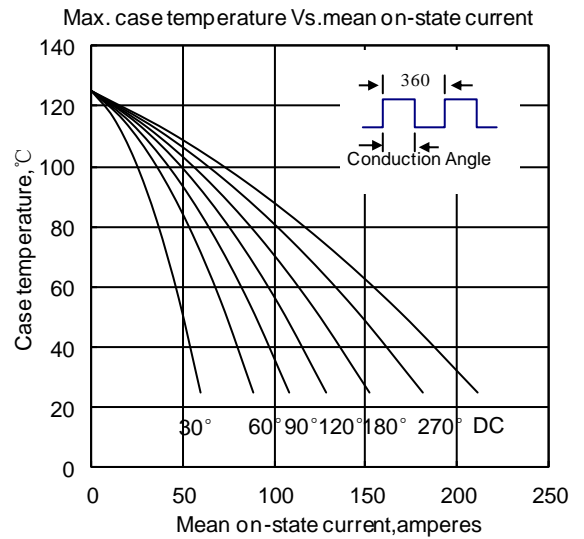


Fig6

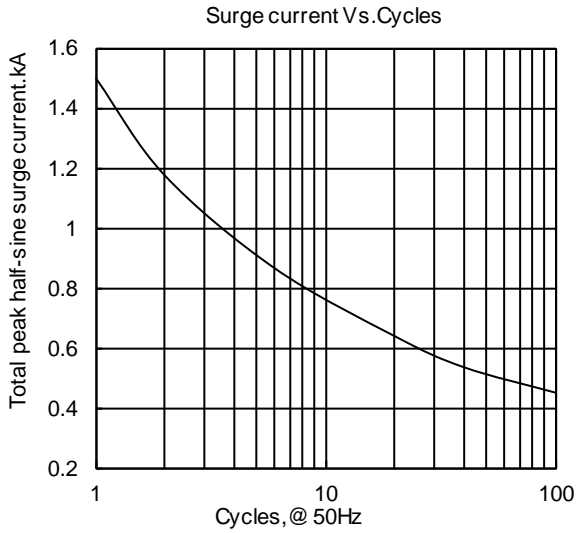


Fig7

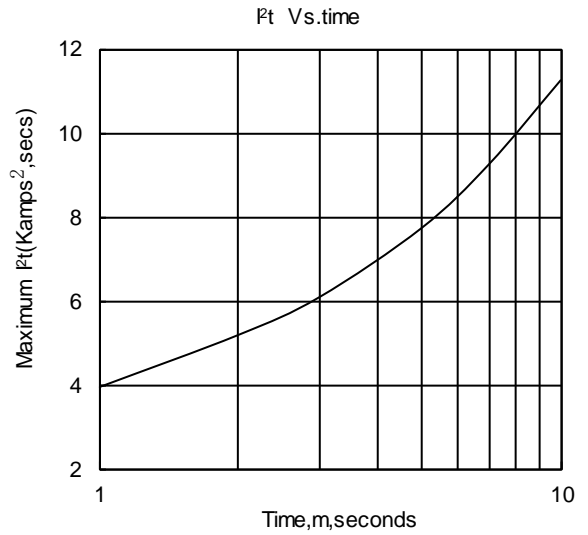


Fig8

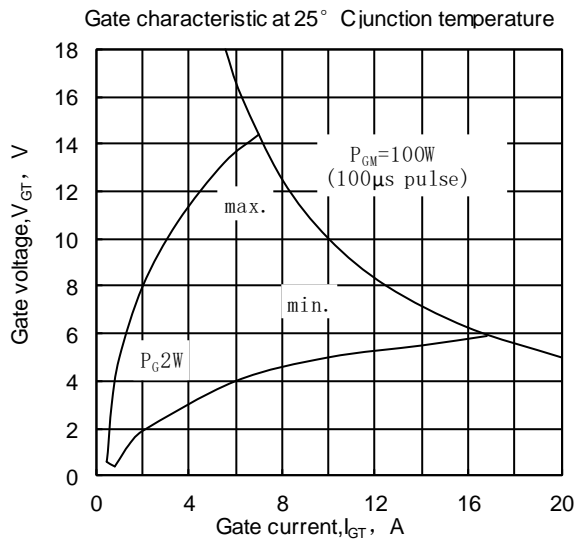


Fig9

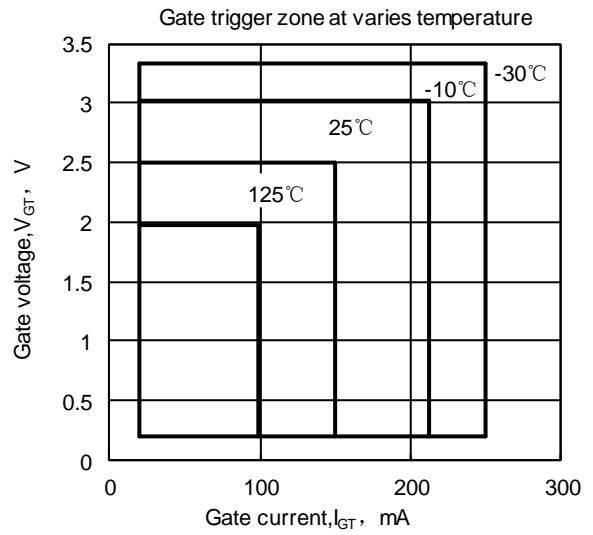


Fig10

