



Features:

- Isolated mounting base 2500V~
- 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 _{RDM} | Type & Outline |
|------------------------------------|------------------------------------|-----------------|
| 900V | 800V | MTx570-08-416F3 |
| 1100V | 1000V | MTx570-10-416F3 |
| 1300V | 1200V | MTx570-12-416F3 |
| 1500V | 1400V | MTx570-14-416F3 |
| 1700V | 1600V | MTx570-16-416F3 |
| 1900V | 1800V | MTx570-18-416F3 |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | T _J (°C) | VALUE | | | UNIT |
|--------------------------------------|--------------------------------------------|----------------------------------------------------------------------|---------------------|-------|------|-------|----------------------------------|
| | | | | Min | Type | Max | |
| I _{T(AV)} | Mean on-state current | 180° half sine wave 50Hz Single side cooled, T _c =85°C | 125 | | | 570 | A |
| I _{T(RMS)} | RMS on-state current | | 125 | | | 895 | A |
| I _{DRM} I _{RDM} | Repetitive peak current | at V _{DRM} at V _{RDM} | 125 | | | 35 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 15 | KA |
| I ² t | I ² T for fusing coordination | V _R =60%V _{RDM} | | | | 1125 | A ² s*10 ³ |
| V _{TO} | Threshold voltage | | 125 | | | 0.80 | V |
| r _T | On-state slop resistance | | | | | 0.20 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =1600A | 25 | | | 1.45 | 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 | Gate source 1.5A t _r ≤0.5μs Repetitive | 125 | | | 100 | A/μs |
| I _{GT} | Gate trigger current | V _A =12V, I _A =1A | 25 | 30 | | 200 | mA |
| V _{GT} | Gate trigger voltage | | | 1.0 | | 3.0 | V |
| I _H | Holding current | | | 20 | | 200 | 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 | | | | 0.065 | °C/W |
| R _{th(c-h)} | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.024 | °C/W |
| V _{iso} | Isolation voltage | 50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX) | | 2500 | | | V |
| F _m | Thermal connection torque(M10) | | | | 12.0 | | N·m |
| | Mounting torque(M6) | | | | 6.0 | | N·m |
| T _{stg} | Stored temperature | | | -40 | | 125 | °C |
| W _t | Weight | | | | 1430 | | g |
| Outline | 416F3 | | | | | | |

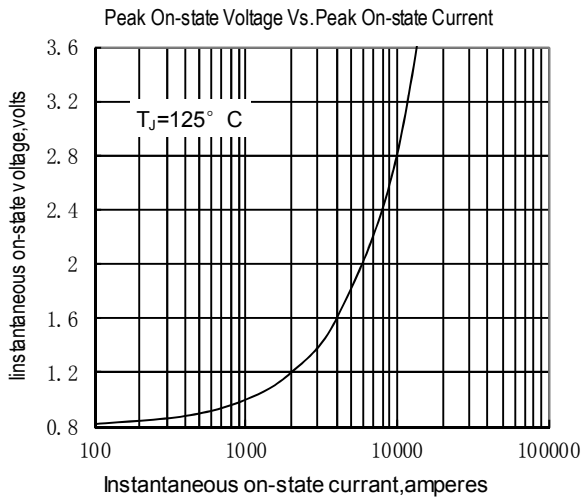


Fig.1

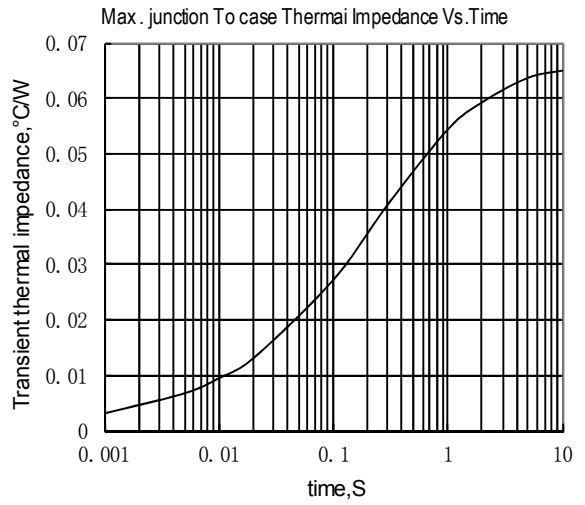


Fig.2

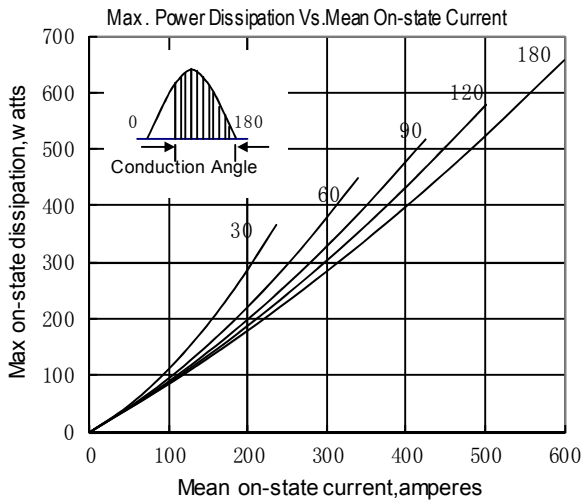


Fig.3

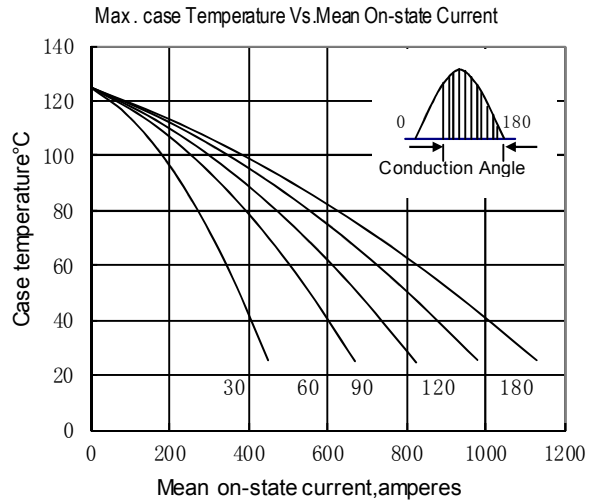


Fig.4

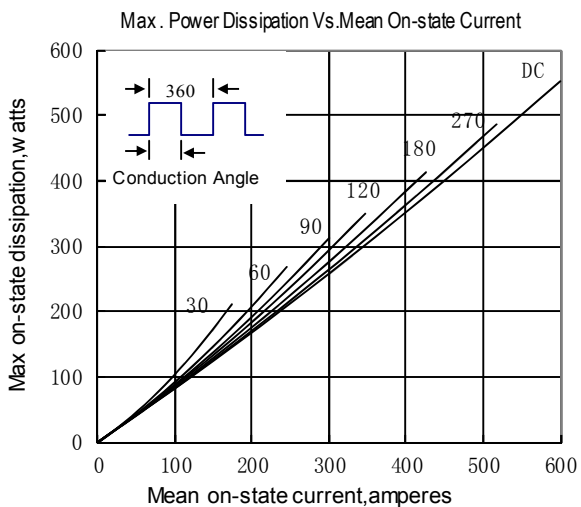


Fig.5

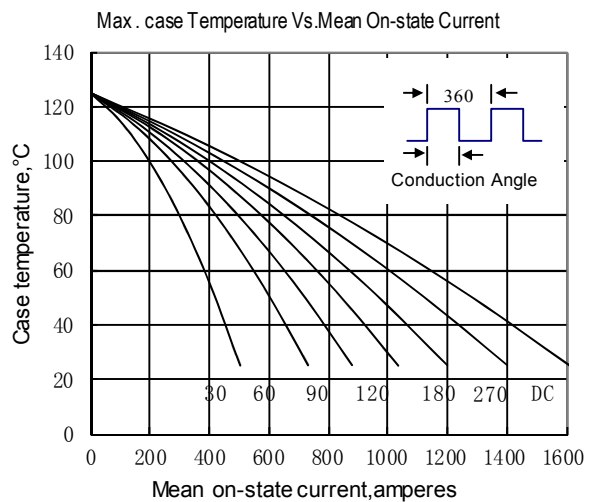


Fig.6

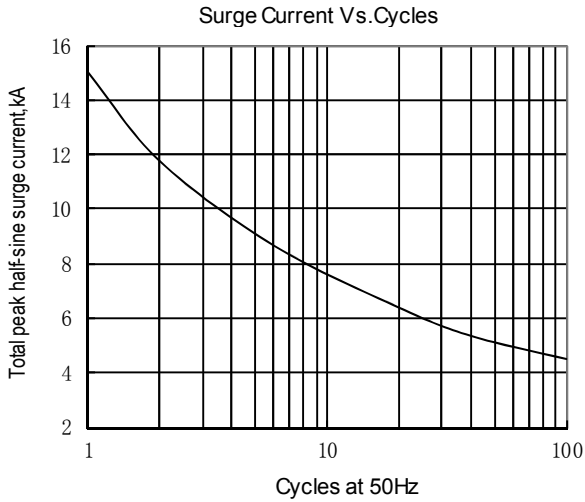


Fig.7

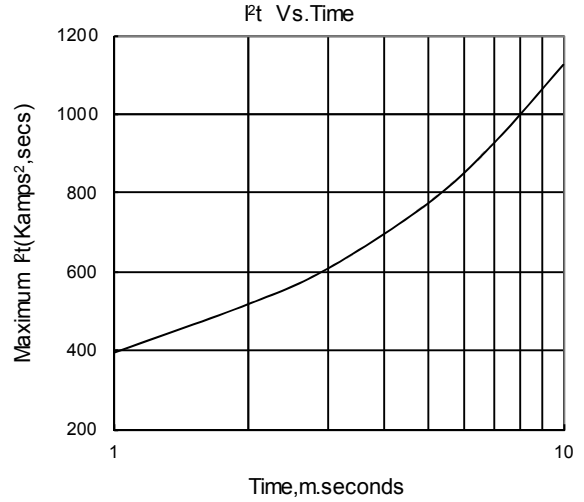


Fig.8

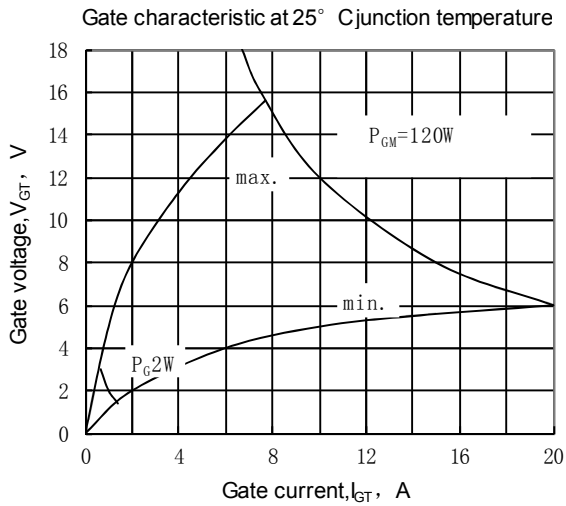


Fig.9

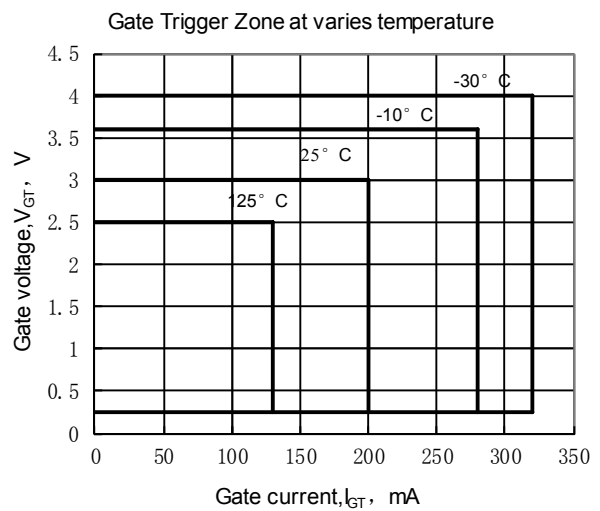


Fig.10

Outline:

