

Features:

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

Typical Applications

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

$I_{T(AV)}$ **350A**
 V_{DRM}/V_{RRM} **1900~2500V**
 I_{TSM} **11.0A×10³**
 I^2t **605A² S×10³**



| 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 | | | 350 | A |
| I _{T(RMS)} | RMS on-state current | | 125 | | | 550 | 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} +100V respectively | 125 | 1900 | | 2500 | V |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 45 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 11.0 | KA |
| I ² t | I ² T for fusing coordination | V _R =60%V _{RRM} | | | | | 605 |
| V _{TO} | Threshold voltage | | 125 | | | 0.84 | V |
| r _T | On-state slop resistance | | | | | | 0.50 |
| V _{TM} | Peak on-state voltage | I _{TM} =1050A | 25 | | | 1.89 | 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 | I _{TM} =600A, 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 | | 180 | mA |
| V _{GT} | Gate trigger voltage | | | 1.0 | | 2.5 | V |
| I _H | Holding current | | | 20 | | 150 | 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 | | | | 0.090 | °C /W |
| R _{th(c-h)} | Thermal resistance case to heat sink | Single side cooled | | | | 0.04 | °C /W |
| V _{iso} | Isolation voltage | 50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX) | | 3000 | | | V |
| F _m | Thermal connection torque (M10) | | | | | 12.0 | N·m |
| | Mounting torque (M6) | | | | | 6.0 | N·m |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _t | Weight | | | | | 1350 | g |
| Outline | 415F3/424F3 | | | | | | |

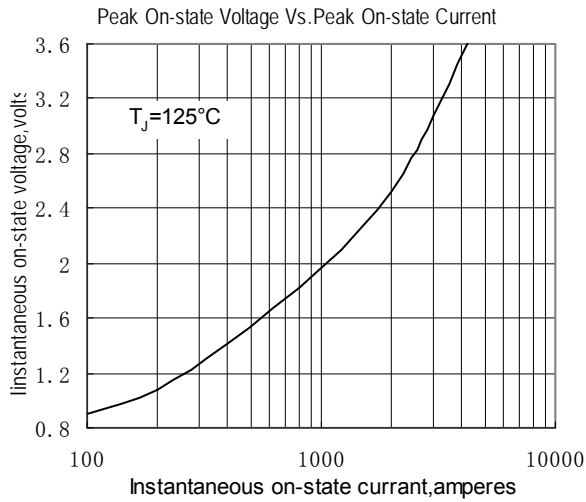


Fig.1

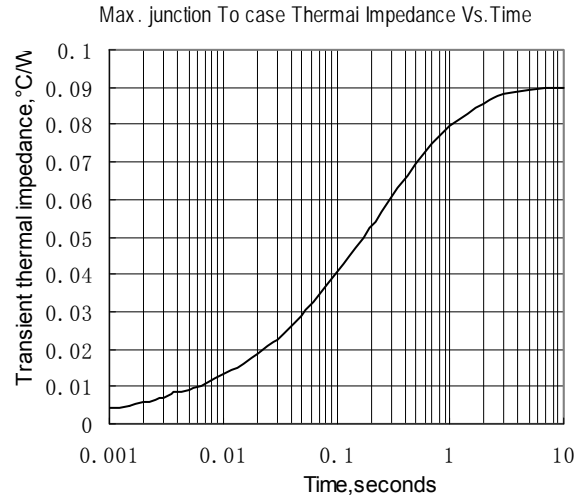


Fig.2

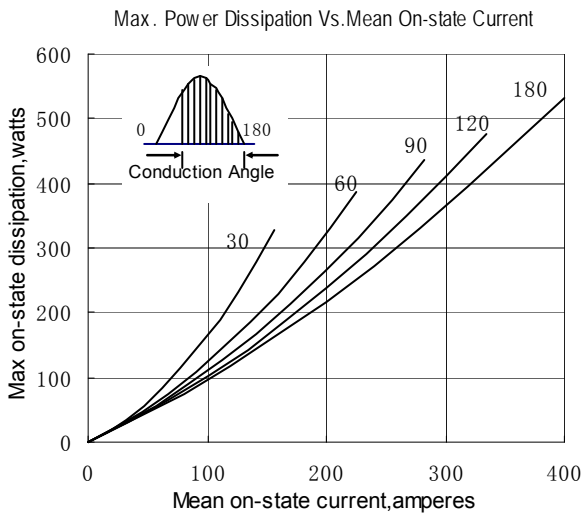


Fig.3

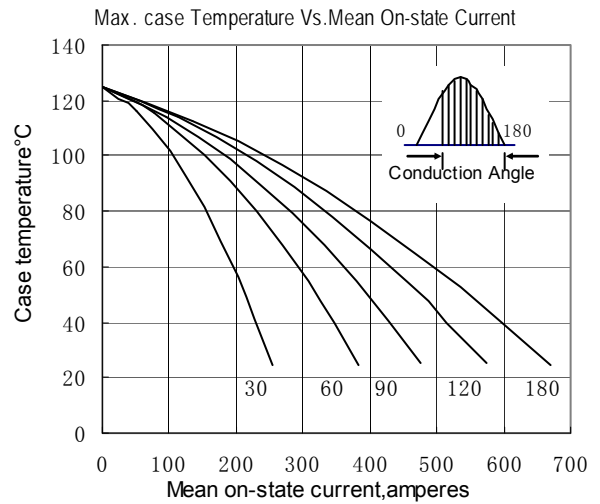


Fig.4

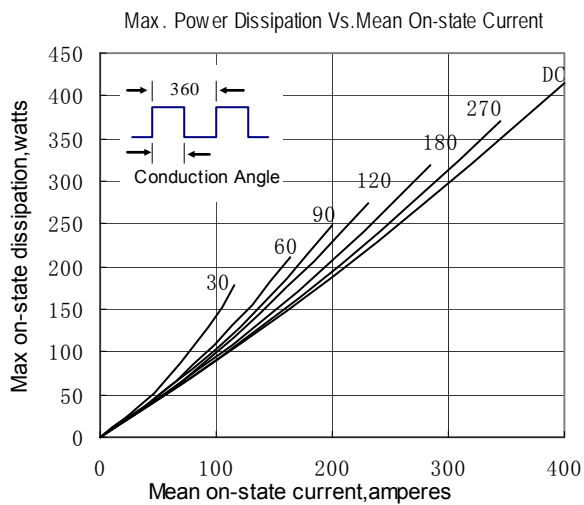


Fig.5

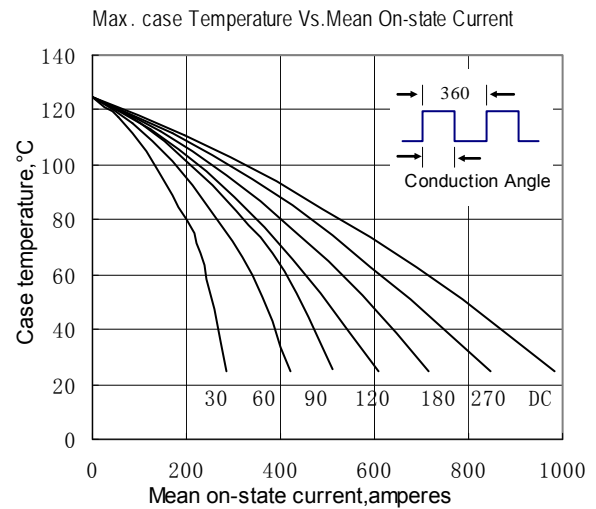


Fig.6

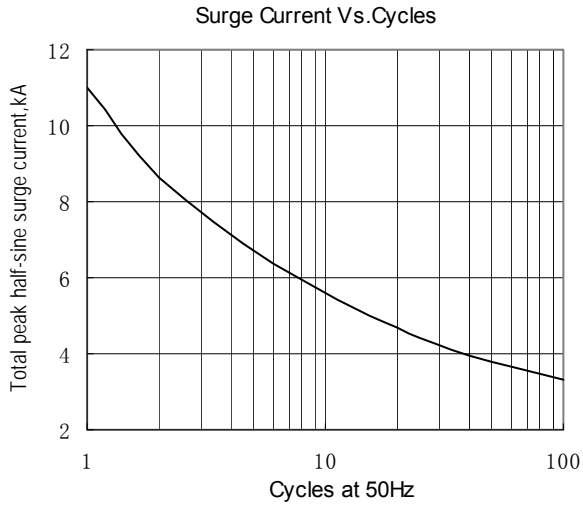


Fig.7

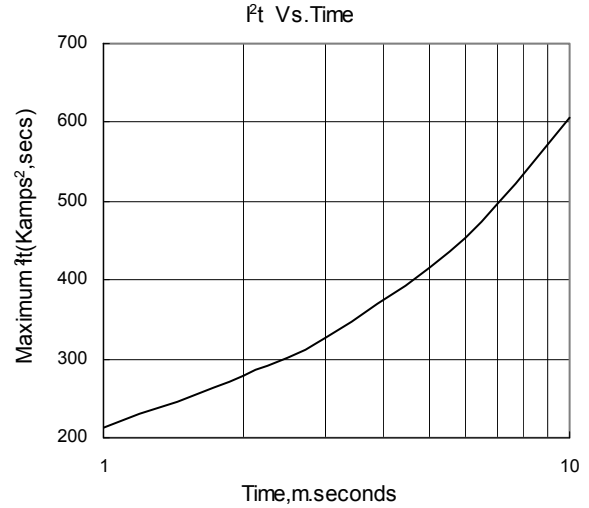


Fig.8

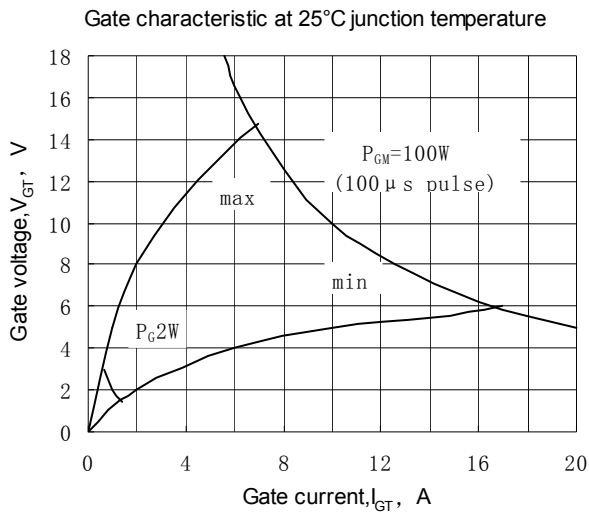


Fig.9

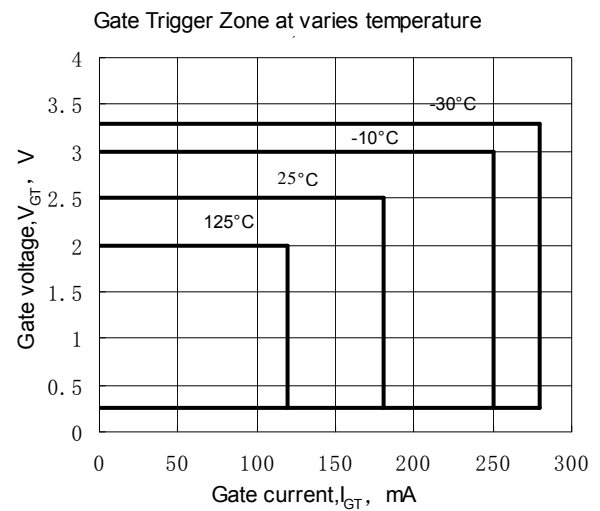
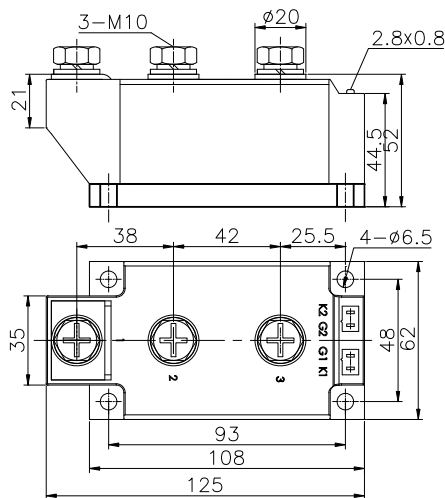


Fig.10

Outline:



415F3

