

Features:

- Isolated mounting base 4000V~
- 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 _{RRM} , V _{DRM} | Type & Outline | |
|-------------------------------------|-----------------|-----------------|
| 2600V | MTx400-26-406F3 | MFx400-26-406F3 |
| 2800V | MTx400-28-406F3 | MFx400-28-406F3 |
| 3000V | MTx400-30-406F3 | MFx400-30-406F3 |
| 3200V | MTx400-32-406F3 | MFx400-32-406F3 |
| 3400V | MTx400-34-406F3 | MFx400-34-406F3 |
| 3600V | MTx400-36-406F3 | MFx400-36-406F3 |
| 3600V | MT400-36-406F3G | |

MTx stands for any type of **MTC, MTA, MTK**
 MFx stands for any type of **MFC, MFA, MFK**

| 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 _{HS} =55°C | 125 | | | 400 | A |
| I _{T(RMS)} | RMS on-state current | | | | | 628 | A |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 50 | mA |
| I _{TSM} | Surge on-state current | V _R =60%V _{RRM} , t=10ms half sine, | 125 | | | 10.5 | kA |
| I ² t | I ² t for fusing coordination | | 125 | | | 551 | 10 ³ A ² s |
| V _{TO} | Threshold voltage | | 125 | | | 0.85 | V |
| r _T | On-state slope resistance | | | | | 0.90 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =1200A | 25 | | | 2.85 | 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 ≤ 0.5μs 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 |
| I _L | Latching current | | | | | 1000 | mA |
| V _{GD} | Non-trigger gate voltage | V _{DM} =67%V _{DRM} | 125 | | | 0.20 | V |
| R _{th(j-c)} | Thermal resistance Junction to case | Single side cooled per chip | | | | 0.100 | °C/W |
| R _{th(c-h)} | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.040 | °C/W |
| V _{iso} | Isolation voltage | 50Hz, R.M.S, t=1min, I _{iso} : 1mA(MAX) | | 4000 | | | V |
| F _m | Terminal connection torque(M12) | | | 12 | | 14 | N·m |
| | Mounting torque(M6) | | | 4.5 | | 6 | N·m |
| T _{vj} | Junction temperature | | | -40 | | 125 | °C |
| T _{stg} | Stored temperature | | | -40 | | 125 | °C |
| W _t | Weight | | | | 1580 | | g |
| Outline | 406F3 | | | | | | |

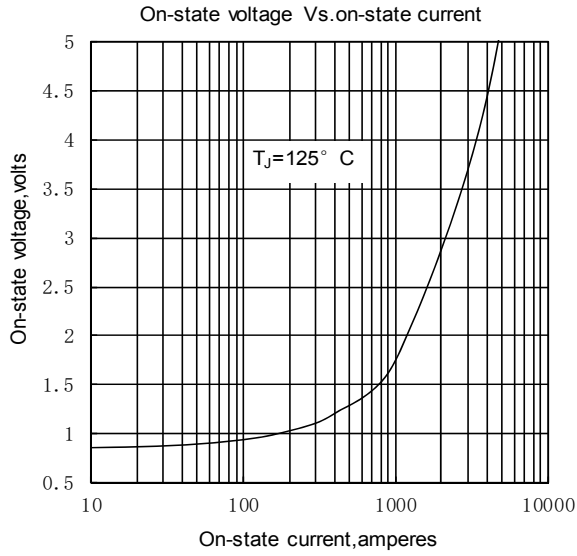


Fig.1

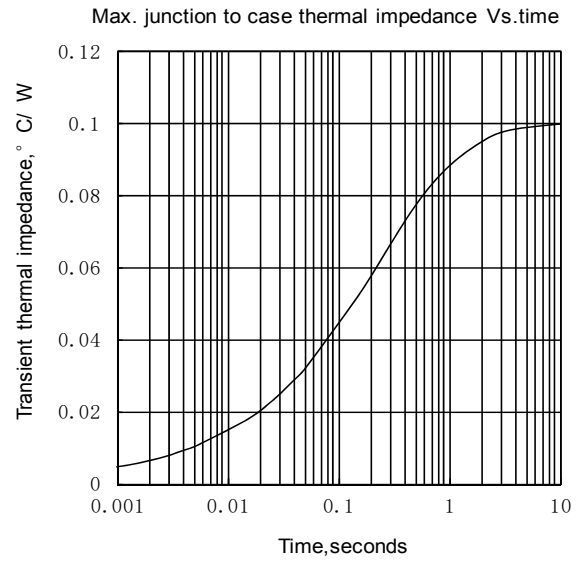


Fig.2

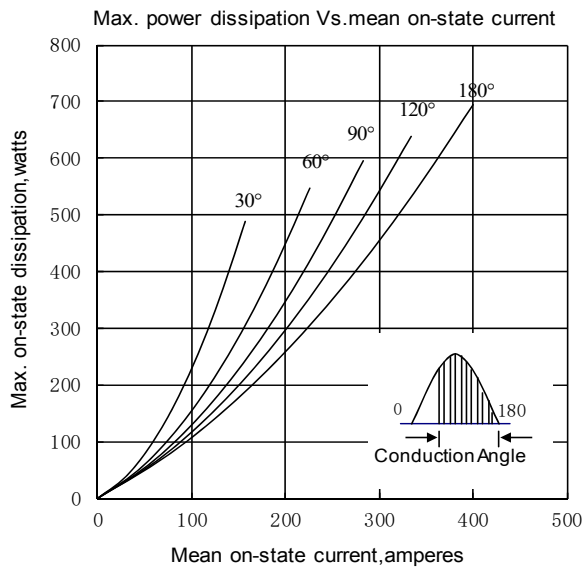


Fig.3

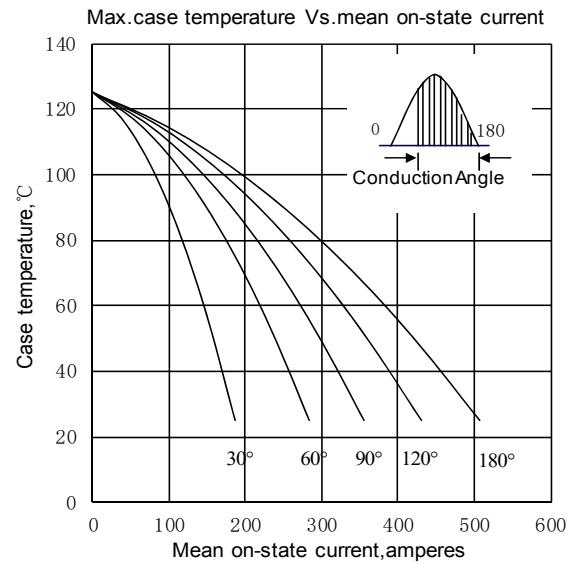


Fig.4

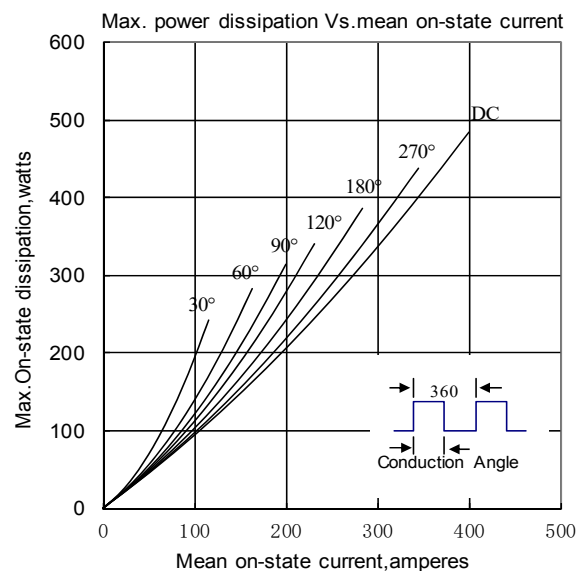


Fig.5

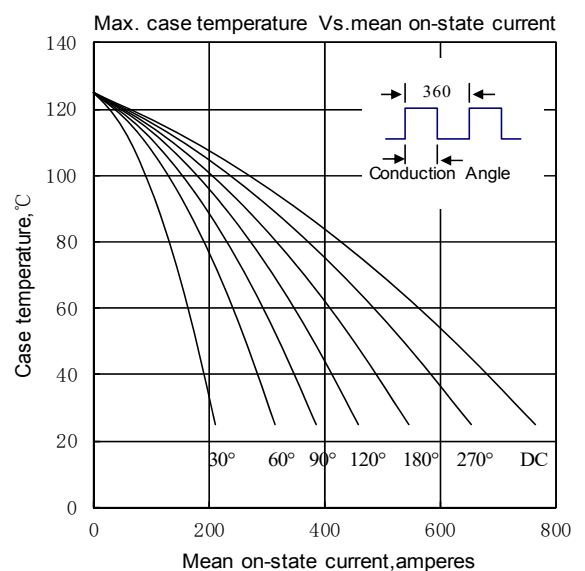


Fig.6

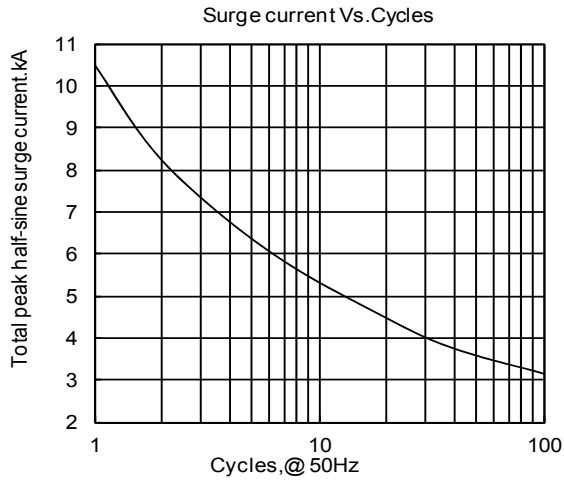


Fig7

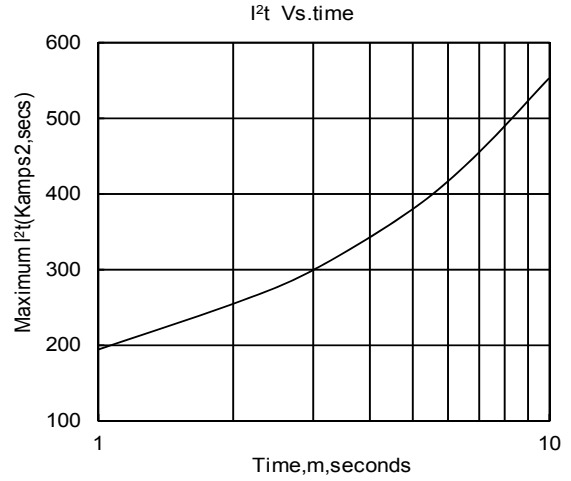


Fig8

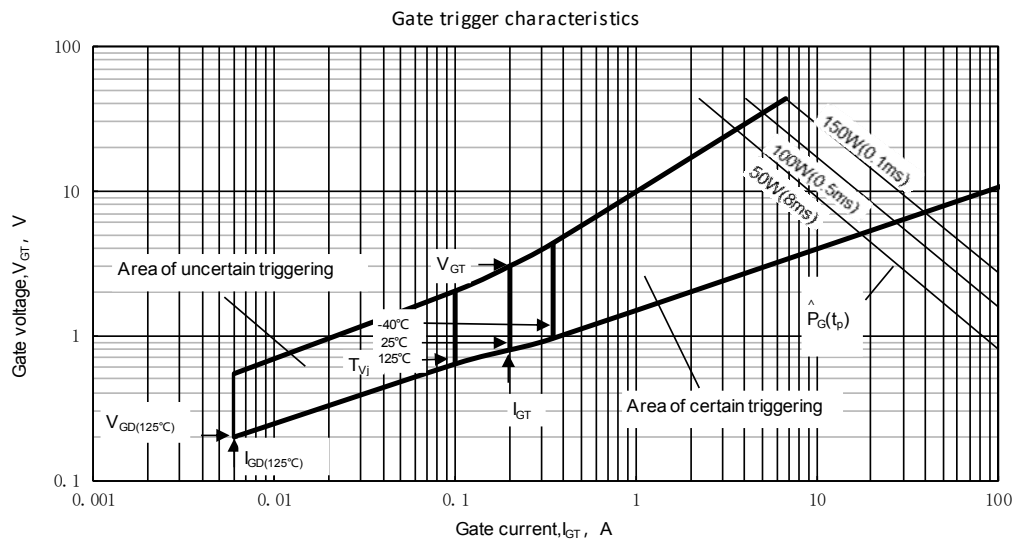
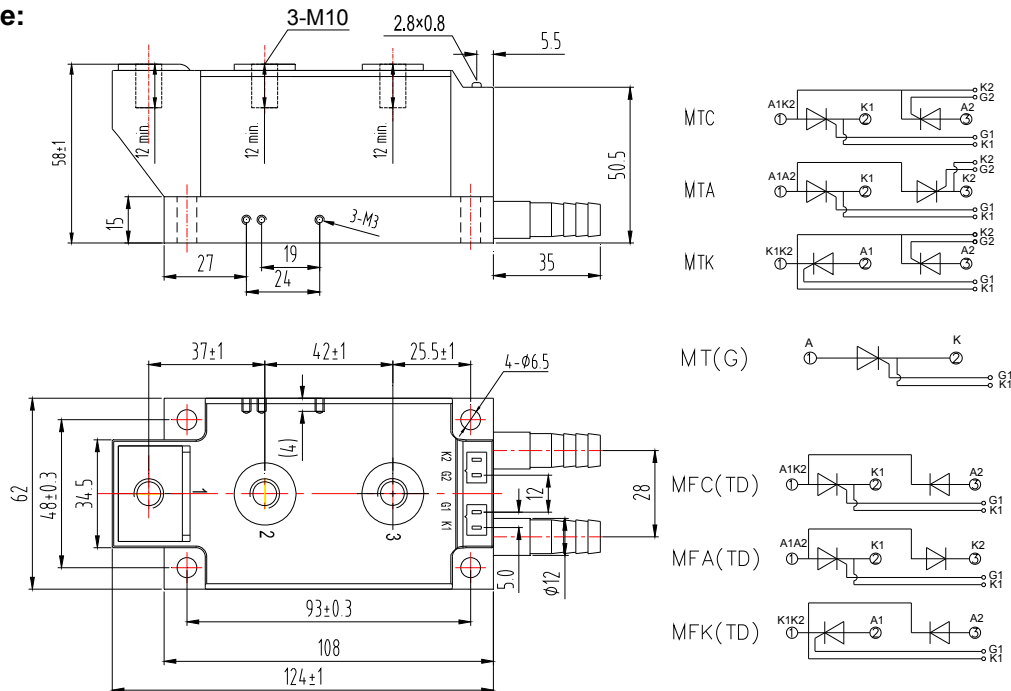


Fig.9

Outline:



Unmarked dimensional tolerance: ±0.5mm

TECHSEM reserves the right to change specifications without notice.