

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_{RRM} | Type & Outline |
|--------------------|--------------------|-----------------|
| 900V | 800V | MFx800-08-410F3 |
| 1100V | 1000V | MFx800-10-410F3 |
| 1300V | 1200V | MFx800-12-410F3 |
| 1500V | 1400V | MFx800-14-410F3 |
| 1700V | 1600V | MFx800-16-410F3 |
| 1900V | 1800V | MFx800-18-410F3 |

| 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 | | | 800 | A |
| $I_{T(RMS)}$ | RMS on-state current | | | | | 1256 | A |
| 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 | | | 22.0 | kA |
| I^2t | I^2t for fusing coordination | $V_R=0.6V_{RRM}$ | | | | 2420 | $A^2s \cdot 10^3$ |
| V_{TO} | Threshold voltage | | 125 | | | 0.80 | V |
| r_T | On-state slope resistance | | | | | 0.20 | mΩ |
| V_{TM} | Peak on-state voltage | $I_{TM}=2400A$ | 25 | | | 1.86 | 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 $t_r \leq 0.5\mu s$ 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 | | | 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 Junction to case | Single side cooled per chip | | | | 0.042 | $^{\circ}C/W$ |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.020 | $^{\circ}C/W$ |
| V_{iso} | Isolation voltage | 50Hz, R.M.S, $t=1min, I_{iso}: 1mA(MAX)$ | | 2500 | | | V |
| F_m | Terminal connection torque(M12) | | | | 14.0 | | N·m |
| | Mounting torque(M8) | | | | 12.0 | | N·m |
| T_{vj} | Junction temperature | | | -40 | | 125 | $^{\circ}C$ |
| T_{stg} | Stored temperature | | | -40 | | 125 | $^{\circ}C$ |
| W_t | Weight | | | | 3240 | | g |
| Outline | 410F3 | | | | | | |

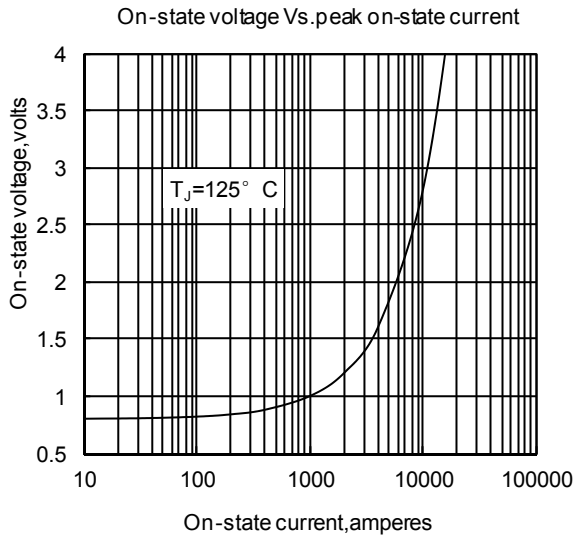


Fig1

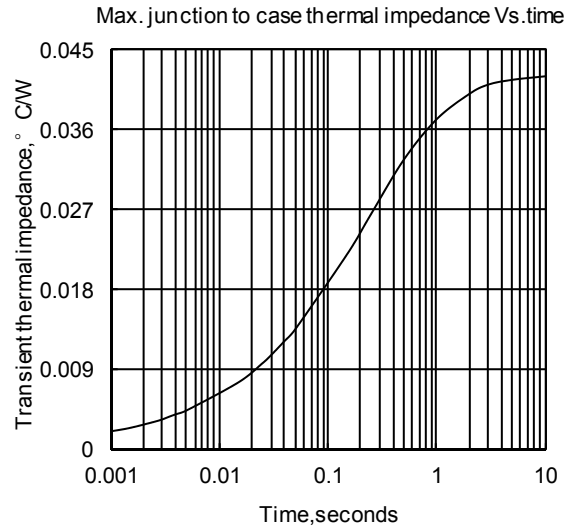


Fig2

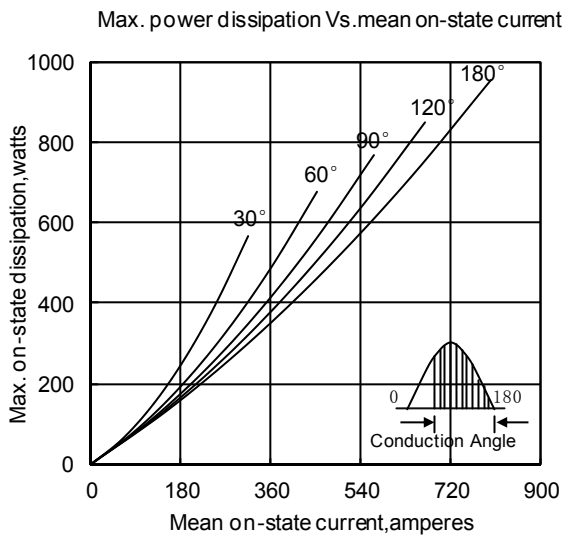


Fig3

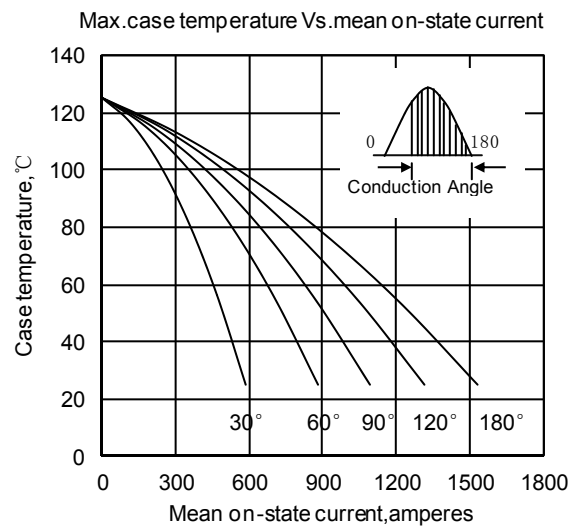


Fig4

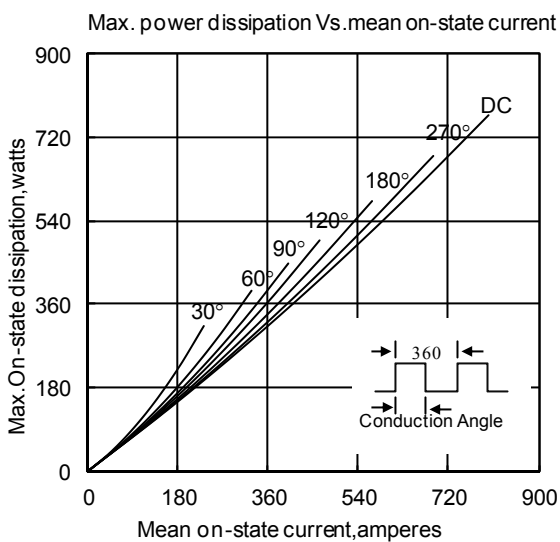


Fig5

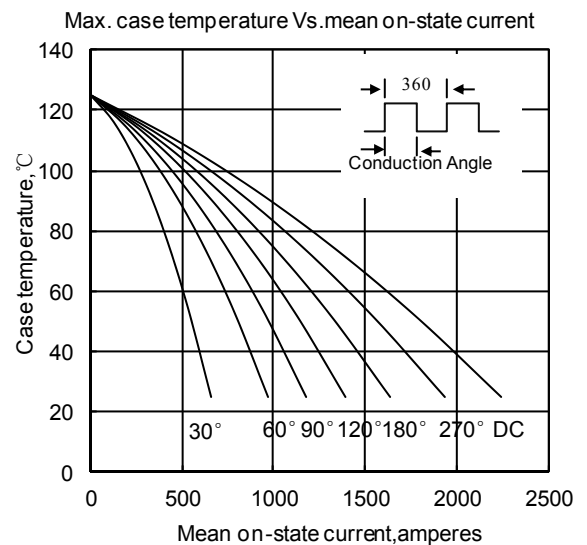


Fig6

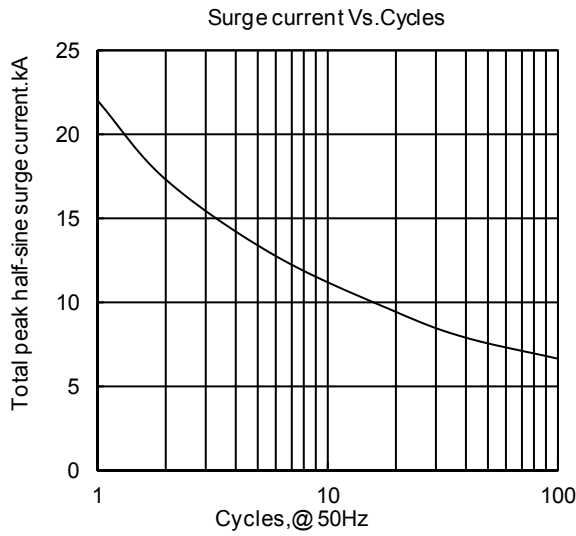


Fig7

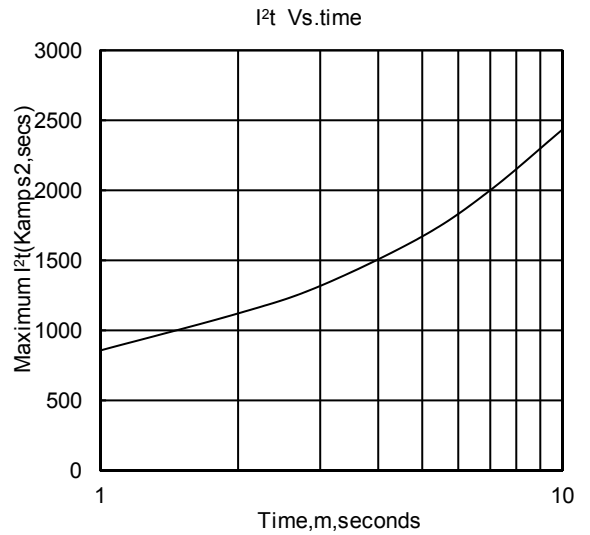


Fig8

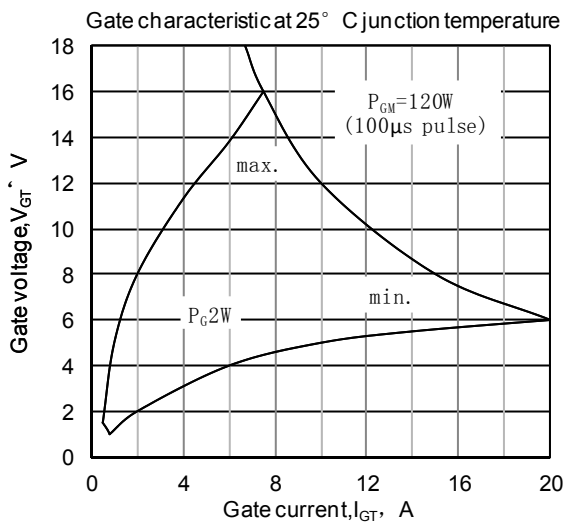


Fig9

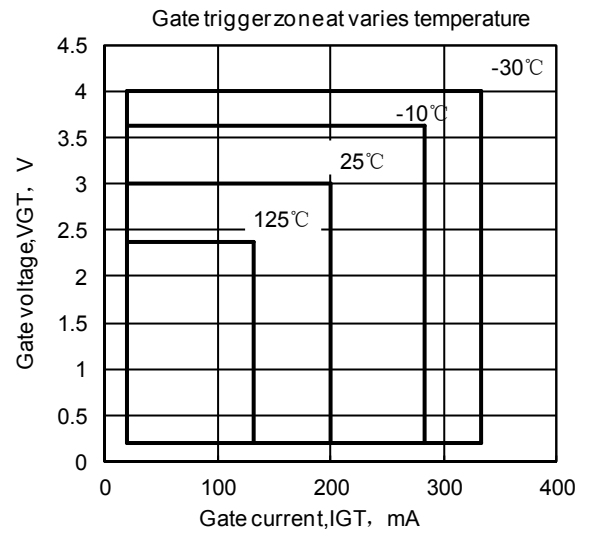


Fig10

Outline:

