

MTG200 MTY200

Thyristor Modules(Non-isolated Type)

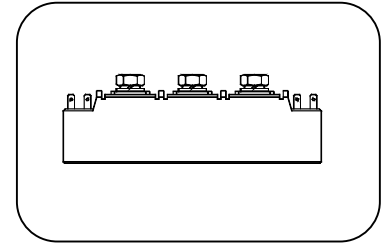
Features:

- n Non-Isolated. Mounting base as common
- n Pressure contact technology with Increased power cycling capability
- n Low on-state voltage drop

Typical Applications

- n Welding Power Supply
- n Various DC Power supplies
- n DC supply for PWM inverter

$I_{T(AV)}$ **200 A**
 V_{DRM}/V_{RRM} **800~1800 V**
 I_{TSM} **6.50 A × 10³**
 I^2t **215 A² 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 =90°C | 125 | | | 200 | A |
| I _{T(RMS)} | RMS on-state current | | 125 | | | 314 | 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} +200V respectively | 125 | 800 | | 1800 | V |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} at V _{RRM} | 125 | | | 20 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 6.50 | KA |
| I ² t | I ² T for fusing coordination | V _R =60%V _{RRM} | | | | 215 | A ² s*10 ³ |
| V _{TO} | Threshold voltage | | 125 | | | 0.80 | V |
| r _T | On-state slop resistance | | | | | 1.15 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =600A | 25 | | | 1.62 | 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 | | 150 | mA |
| V _{GT} | Gate trigger voltage | | | 0.8 | | 2.5 | V |
| I _H | Holding current | | | 20 | | 200 | mA |
| V _{GD} | Non-trigger gate voltage | At 67%V _{DRM} | 125 | 0.2 | | | V |
| R _{th(j-c)} | Thermal resistance Junction to case | Single side cooled | | | | 0.130 | °C /W |
| R _{th(c-h)} | Thermal resistance case to heat sink | Single side cooled | | | | 0.1 | °C /W |
| F _m | Thermal connection torque (M6) | | | | 6.0 | | N·m |
| | Mounting torque (M6) | | | | 6.0 | | N·m |
| T _{stg} | Stored temperature | | | -40 | | 125 | °C |
| W _t | Weight | | | | 380 | | g |
| Outline | 213F4 | | | | | | |

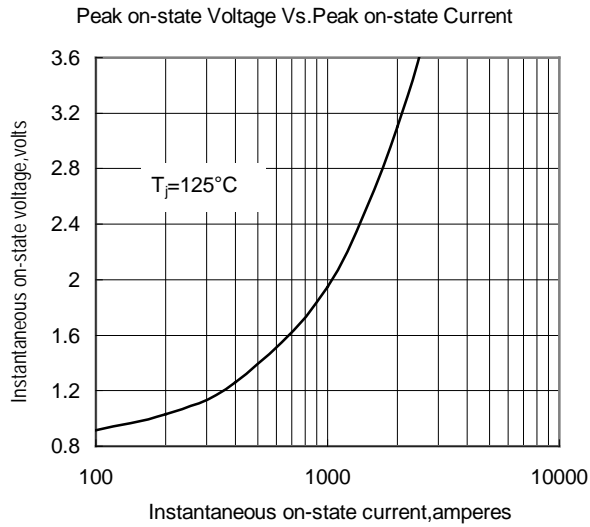


Fig.1

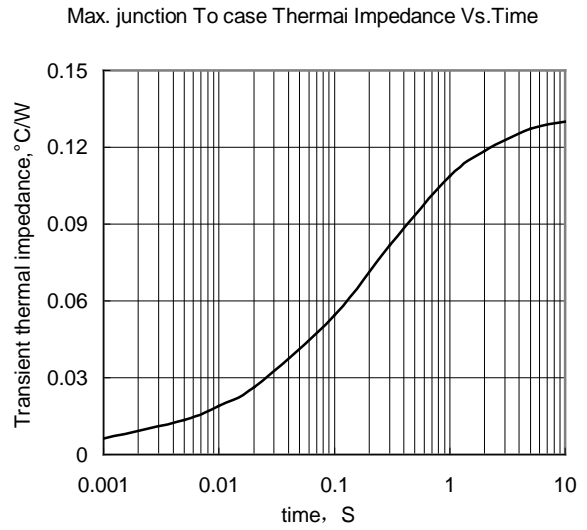


Fig.2

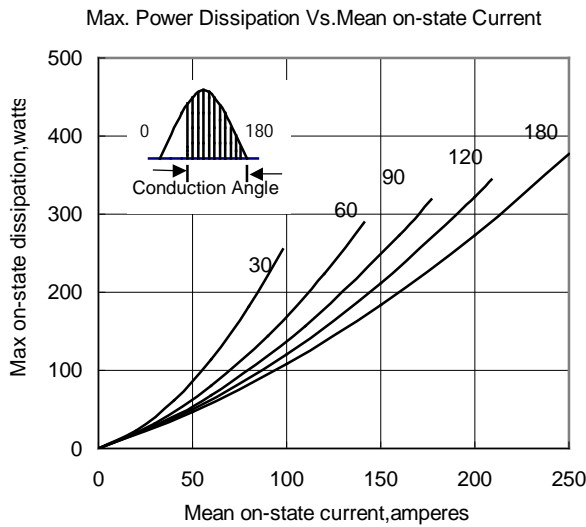


Fig.3

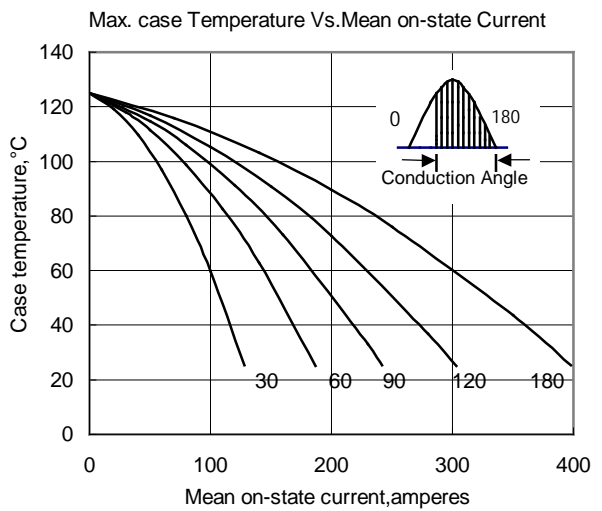


Fig.4

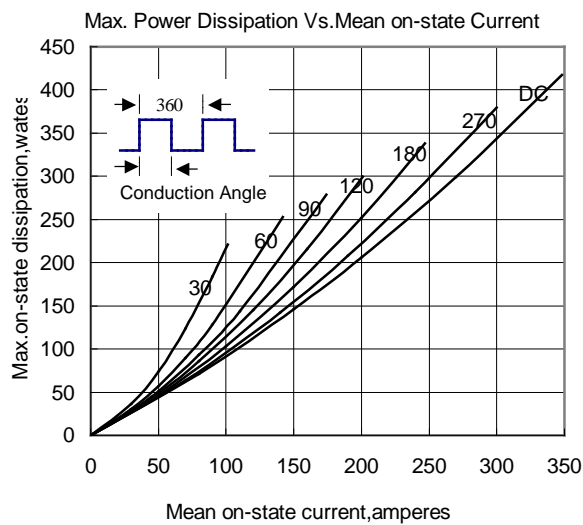


Fig.5

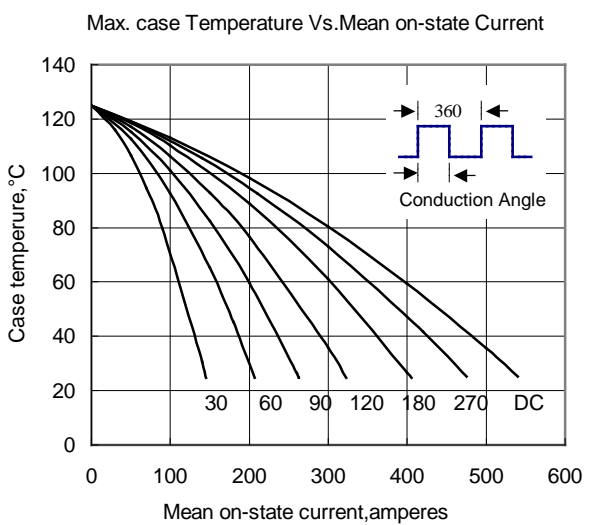


Fig.6

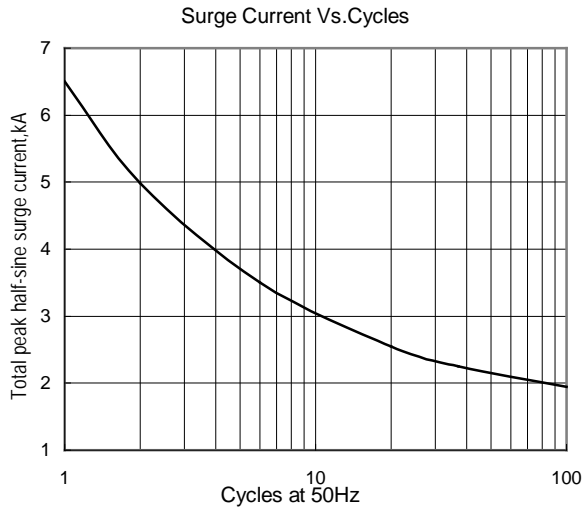


Fig.7

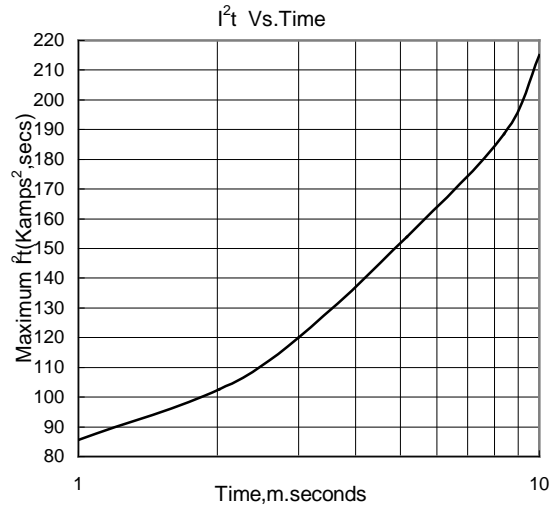


Fig.8

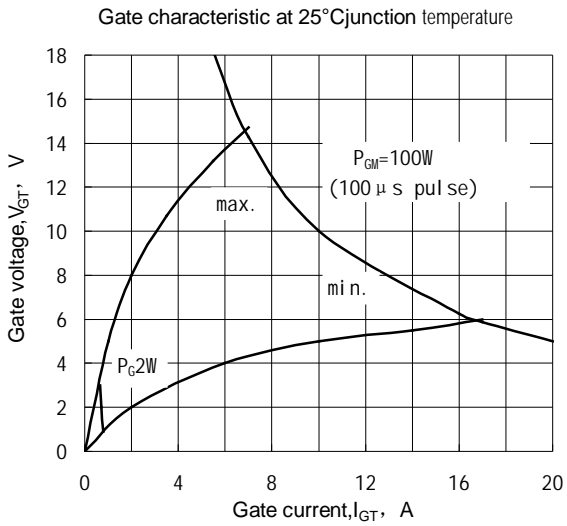


Fig.9

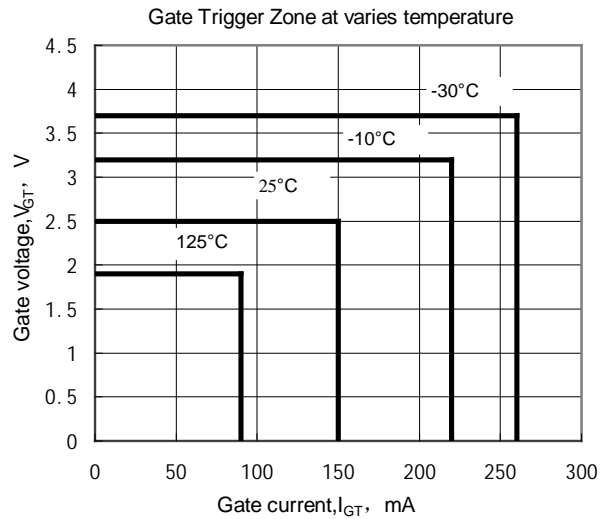


Fig.10

Outline:

