

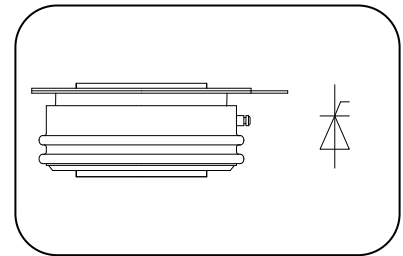
Features:

- Center amplifying gate
- Metal case with ceramic insulator
- Low on-state and switching losses

Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

| | |
|-------------------|--|
| $I_{T(AV)}$ | 3460A |
| V_{DRM}/V_{RRM} | 400~1000V |
| I_{TSM} | 35 KA |
| I^2t | 6125 10³A²S |



| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | | T _J (°C) | VALUE | | | UNIT |
|------------------------|--|--|----------------------|---------------------|-------|------|--------|----------------------------------|
| | | | | | Min | Type | Max | |
| $I_{T(AV)}$ | Mean on-state current | 180° half sine wave 50Hz Double side cooled, | T _C =55°C | 125 | | | 3280 | A |
| | | | T _C =70°C | | | | 2800 | |
| V_{DRM} V_{RRM} | Repetitive peak off-state voltage Repetitive peak reverse voltage | $V_{DRM}&V_{RRM}$ tp=10ms $V_{DSM}&V_{RSM}=V_{DRM}&V_{RRM}+100V$ | | 125 | 400 | | 1000 | V |
| I_{DRM} I_{RRM} | Repetitive peak current | $V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$ | | 125 | | | 120 | mA |
| I_{TSM} | Surge on-state current | 10ms half sine wave $V_R=0.6V_{RRM}$ | | 125 | | | 35 | KA |
| I^2t | I ² T for fusing coordination | | | | | | 6125 | A ² s*10 ³ |
| V_{TO} | Threshold voltage | | | 125 | | | 0.75 | V |
| r_T | On-state slop resistance | | | | | | 0.11 | mΩ |
| V_{TM} | Peak on-state voltage | $I_{TM}=5000A, F=32KN$ | | 125 | | | 1.30 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}=0.67V_{DRM}$ | | 125 | | | 1000 | V/μs |
| di/dt | Critical rate of rise of on-state current | $V_{DM}=67\%V_{DRM}$ to 3000A, Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive | | 125 | | | 250 | A/μs |
| I_{rm} | Reverse recovery current | $I_{TM}=2000A, tp=1000\mu s, di/dt=-20A/\mu s,$ $V_R=50V$ | | 125 | | | 180 | A |
| t_{rr} | Reverse recovery time | | | | | | 22 | μs |
| Q_{rr} | Recovery charge | | | | | | 2000 | μC |
| I_{GT} | Gate trigger current | $V_A=12V, I_A=1A$ | | 25 | 40 | | 300 | mA |
| V_{GT} | Gate trigger voltage | | 0.8 | | | 3.0 | V | |
| I_H | Holding current | | 20 | | | 300 | mA | |
| V_{GD} | Non-trigger gate voltage | $V_{DM}=67\%V_{DRM}$ | | 125 | 0.3 | | | V |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | At 180° sine double side cooled Clamping force 32KN | | | | | 0.013 | °C /W |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | | | | | | 0.0035 | |
| F_m | Mounting force | | | | 27 | | 34 | KN |
| T_{stg} | Stored temperature | | | | -40 | | 140 | °C |
| W_t | Weight | | | | | 650 | | g |
| Outline | KT60cT65 | | | | | | | |

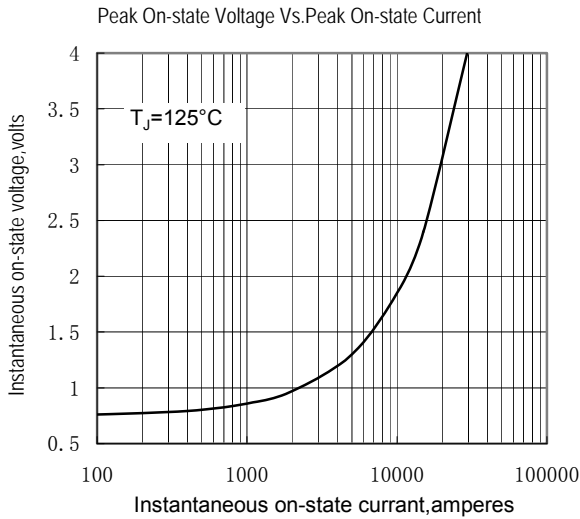


Fig.1

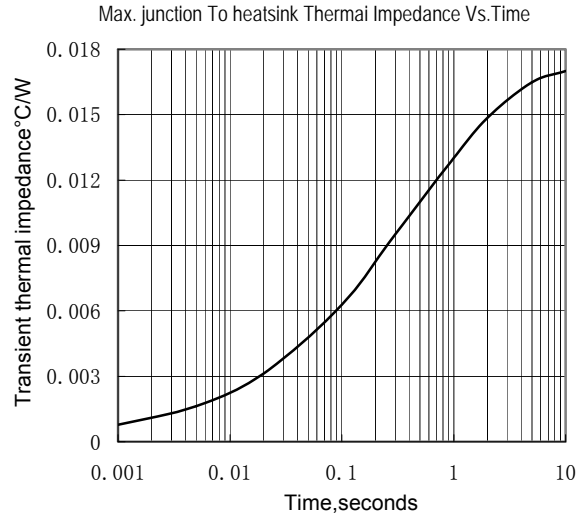


Fig.2

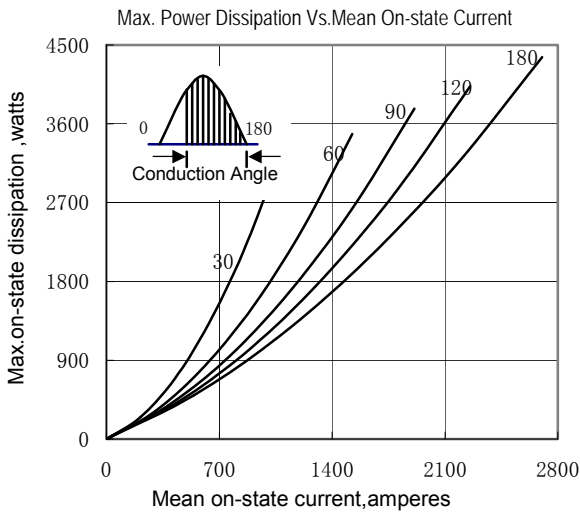


Fig.3

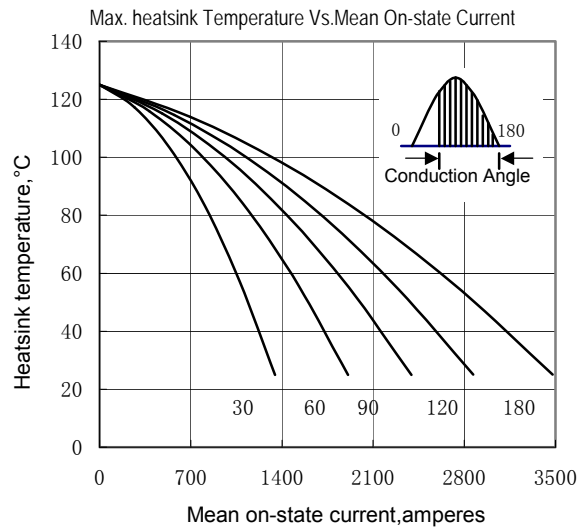


Fig.4

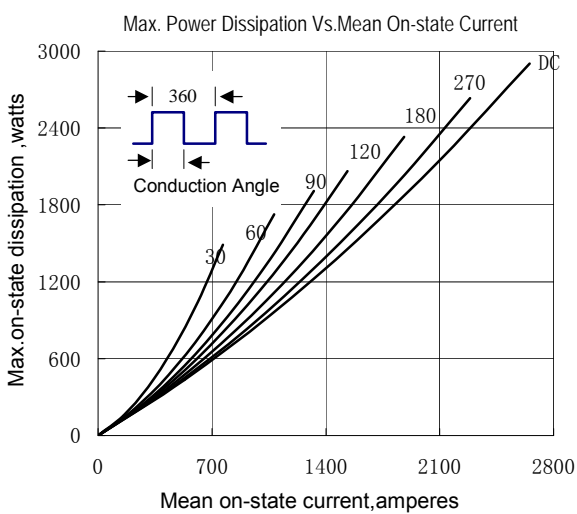


Fig.5

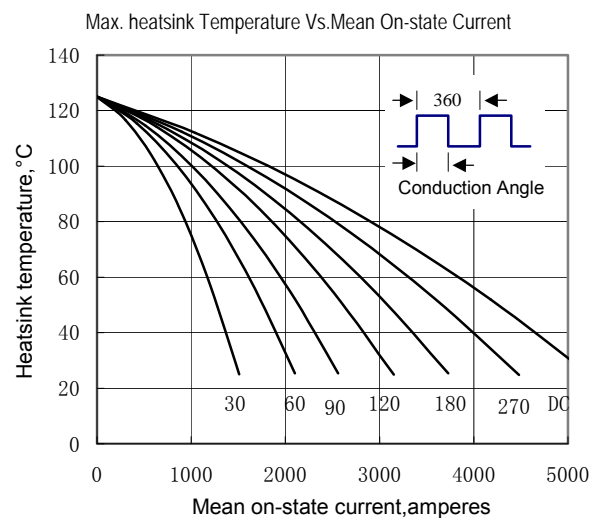


Fig.6

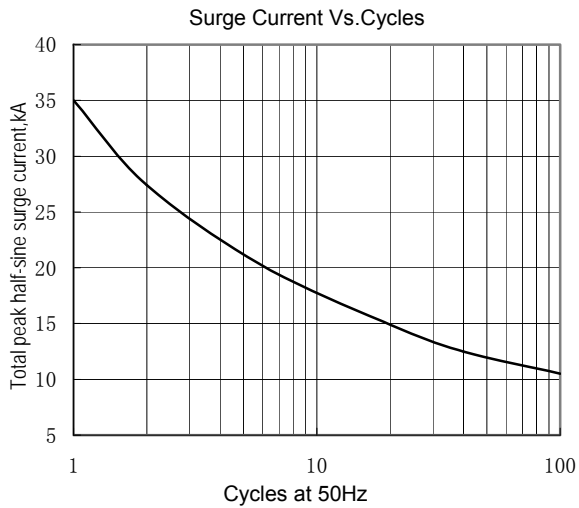


Fig.7

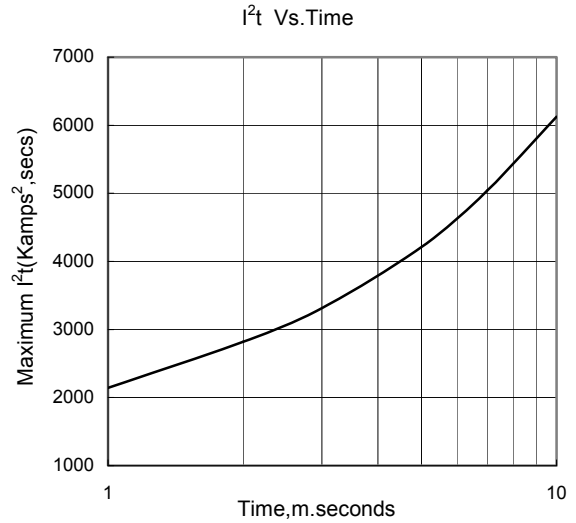


Fig.8

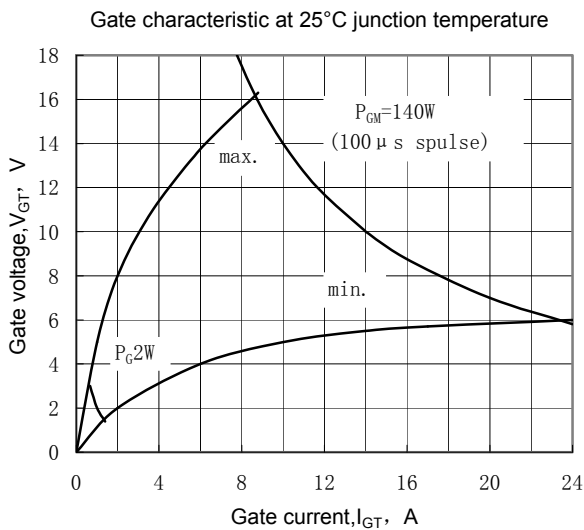


Fig.9

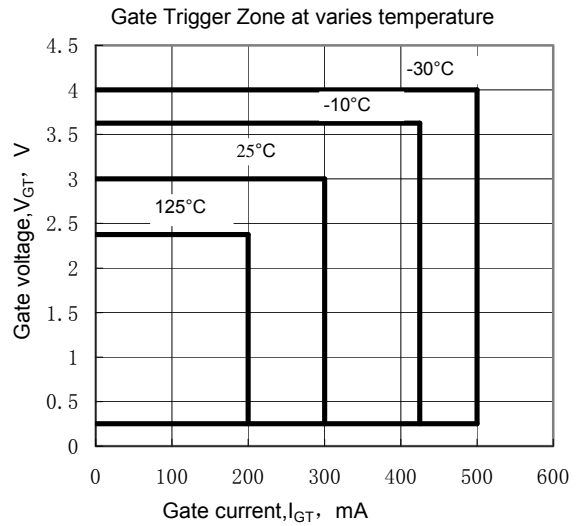


Fig.10

Outline:

