



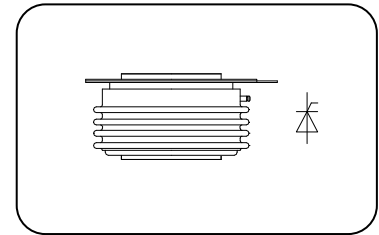
Features

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$ **1500A**
 V_{DRM}/V_{RRM} **2400~3000V**
 t_q **20~40μs**
 I_{TSM} **18 kA**
 I^2t **1620 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 | | 1500 | 1650 | A |
| V_{DRM} V_{RRM} | Repetitive peak off-state voltage Repetitive peak reverse voltage | $V_{DRM}&V_{RRM}$, tp=10ms $V_{DSM}&V_{RSM}=V_{DRM}&V_{RRM}+100V$ | 125 | 2400 | | 3000 | V |
| I_{DRM} I_{RRM} | Repetitive peak current | $V_D=V_{DRM}$ $V_R=V_{RRM}$ | 125 | | | 120 | mA |
| I_{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 18 | kA |
| I^2t | I ² t for fusing coordination | $V_R=0.6V_{RRM}$ | | | | 1620 | A ² s*10 ³ |
| V_{TO} | Threshold voltage | | 125 | | | 1.72 | V |
| r_T | On-state slop resistance | | | | | 0.26 | mΩ |
| V_{TM} | Peak on-state voltage | $I_{TM}=3000A$, F=28kN | 25 | | | 3.20 | 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 | $V_{DM}=67\%V_{DRM}$, $I_{TM}=(2-3)I_{T(AV)}$, t=5s, Gate pulse t _r ≤0.5μs I _{GM} =1.5A f=50Hz | 125 | | | 600 | A/μs |
| Q _{rr} | Recovery charge | $I_{TM}=1500A$, tp=1000μs, di/dt=-20A/μs, V _R =100V | 125 | | 800 | | μC |
| t _q | Circuit commutated turn-off time | $I_{TM}=1500A$, tp=1000μs, V _R =100V dv/dt=30V/μs, di/dt=-20A/μs | 125 | 30 | | 60 | μs |
| I _{GT} | Gate trigger current | | 25 | 40 | | 200 | mA |
| V _{GT} | Gate trigger voltage | V _A =12V, I _A =1A | | 0.9 | | 2.5 | 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 28kN | | | | 0.016 | °C /W |
| R _{th(c-h)} | Thermal resistance case to heat sink | | | | | 0.004 | |
| F _m | Mounting force | | | 23 | | 32 | kN |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _t | Weight | | | | 650 | | g |
| Outline | KT65cT | | | | | | |

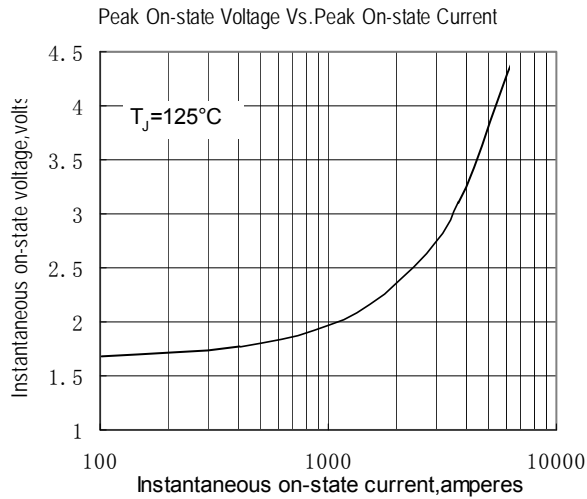


Fig.1

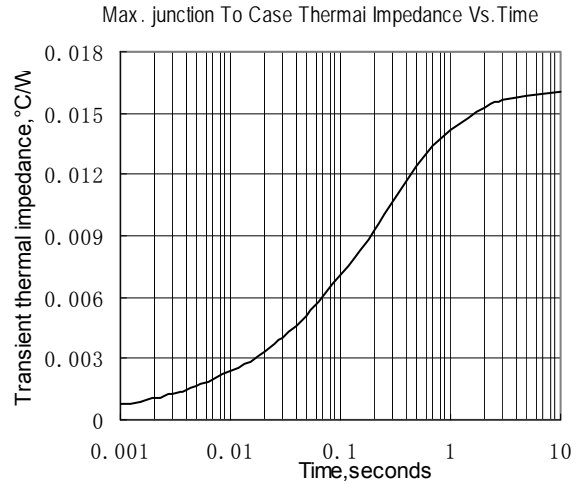


Fig.2

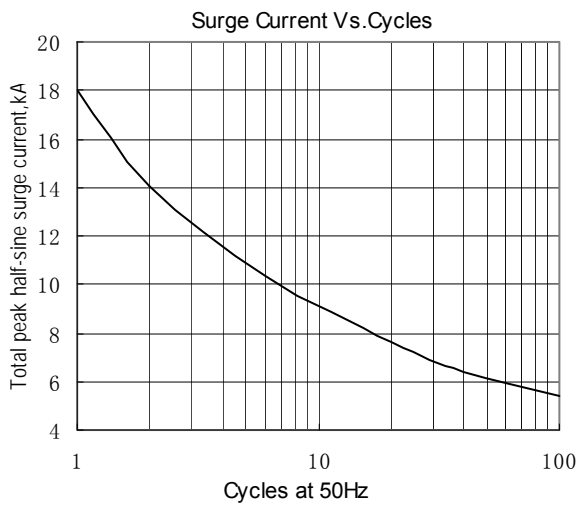


Fig.3

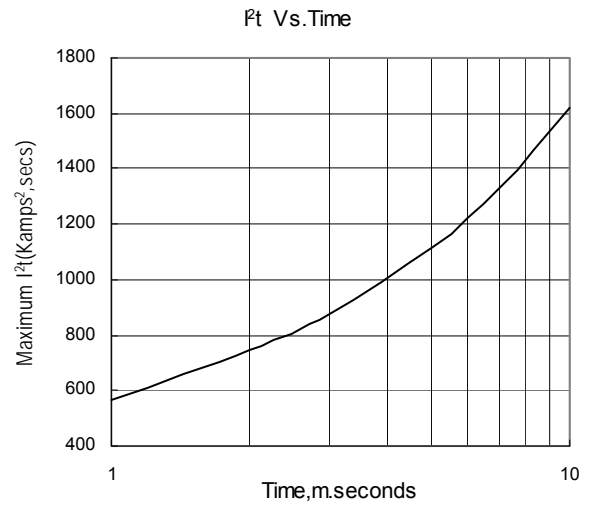


Fig.4

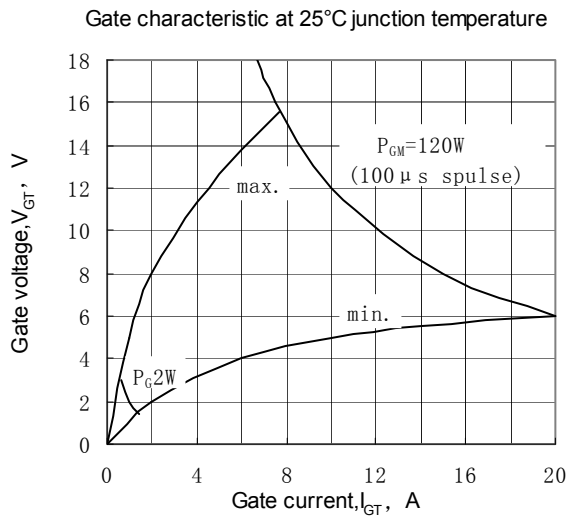


Fig.5

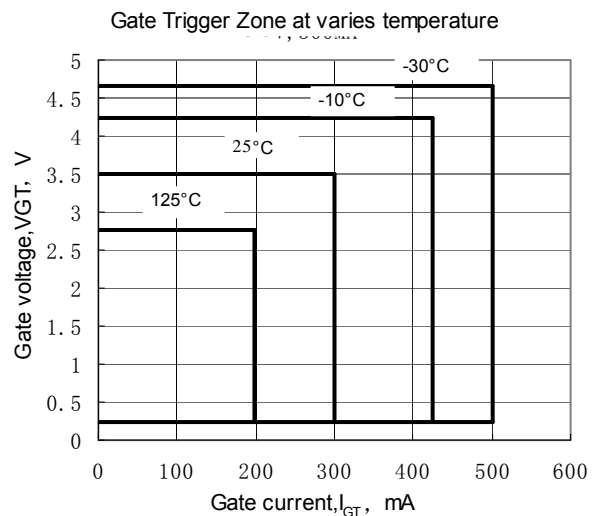
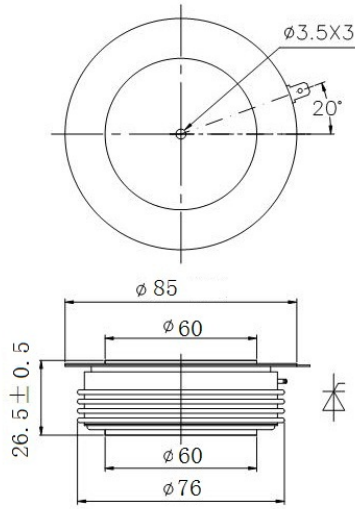


Fig.6



Outline:

图11-KT65cT



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