

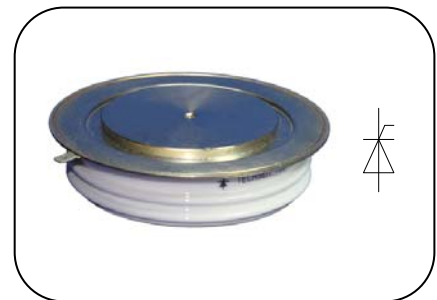
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

| | |
|-------------------|------------------------------------------|
| $I_{T(AV)}$ | 2080A |
| V_{DRM}/V_{RRM} | 800~1800V |
| t_q | 18~50μs |
| I_{TSM} | 21 kA |
| I^2t | 2205 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, | 125 | | | 2080 | A |
| | | | | | | 1400 | |
| 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 | 800 | | 1800 | 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 | | | 21 | kA |
| I ² t | I ² T for fusing coordination | | | | | 2205 | A ² s*10 ³ |
| V _{TO} | Threshold voltage | | 125 | | | 1.41 | V |
| r _T | On-state slop resistance | | | | | 0.23 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =4000A, F=32kN | 125 | | | 2.33 | V |
| dv/dt | Critical rate of rise of off-state voltage | V _{DM} =0.67V _{DRM} | 125 | | | 500 | V/μs |
| di/dt | Critical rate of rise of on-state current | V _{DM} = 67%V _{DRM} to3000A Gate pulse t _r ≤0.5μs I _{GM} =1.5A | 125 | | | 1200 | A/μs |
| Q _{rr} | Recovery charge | I _{TM} =2000A, tp=2000μs, di/dt=-60A/μs, V _R =50V | 125 | | 860 | | μC |
| t _q | Circuit commutated turn-off time | I _{TM} =1700A, tp=1000μs, V _R =50V dv/dt=30V/μs, di/dt=-20A/μs | 125 | 18 | | 50 | μs |
| I _{GT} | Gate trigger current | V _A =12V, I _A =1A | 25 | 40 | | 400 | mA |
| V _{GT} | Gate trigger voltage | | | 0.9 | | 4.0 | V |
| I _H | Holding current | | | 20 | | 800 | 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 heat sink | | | | | 0.0035 | |
| F _m | Mounting force | | | 27 | | 34 | kN |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _i | Weight | | | | | 820 | g |
| Outline | KT60cT65 | | | | | | |

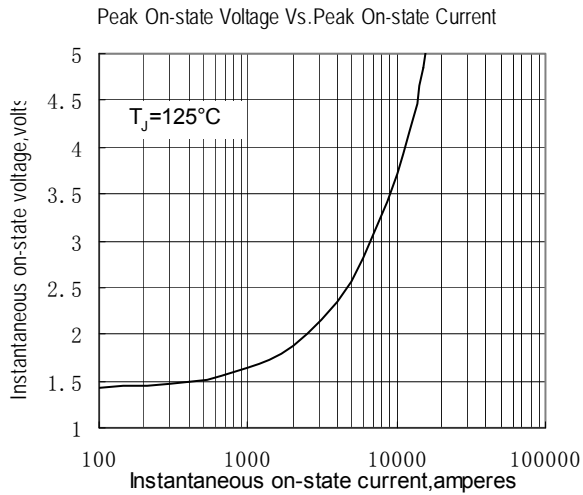


Fig. 1

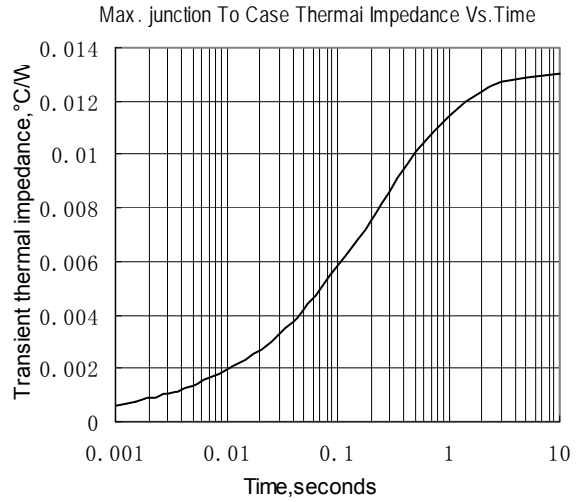


Fig. 2

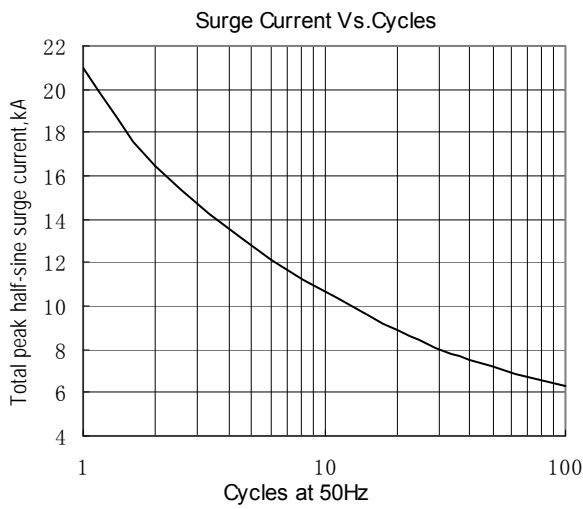


Fig. 3

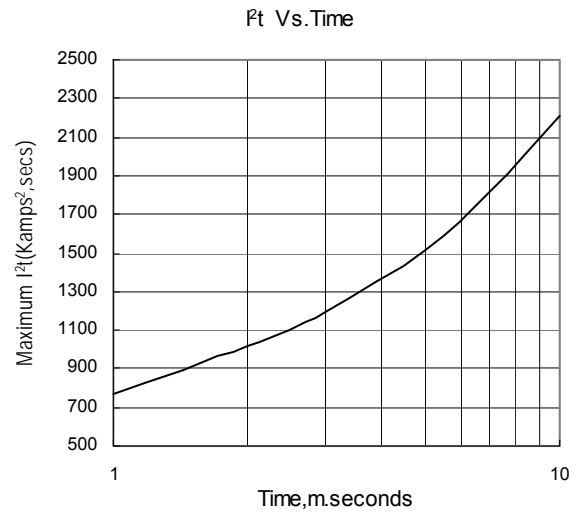


Fig. 4

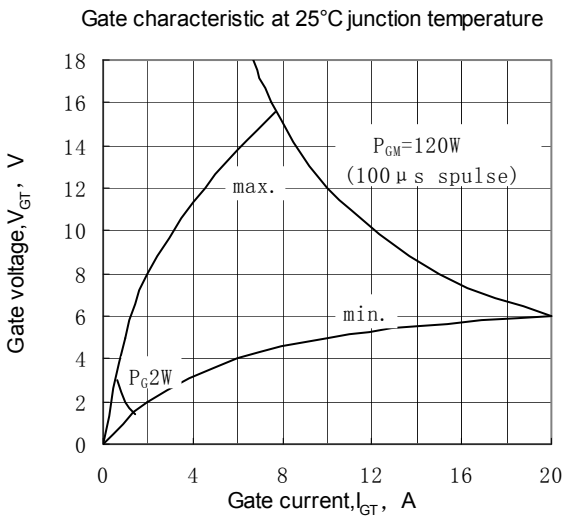


Fig. 5

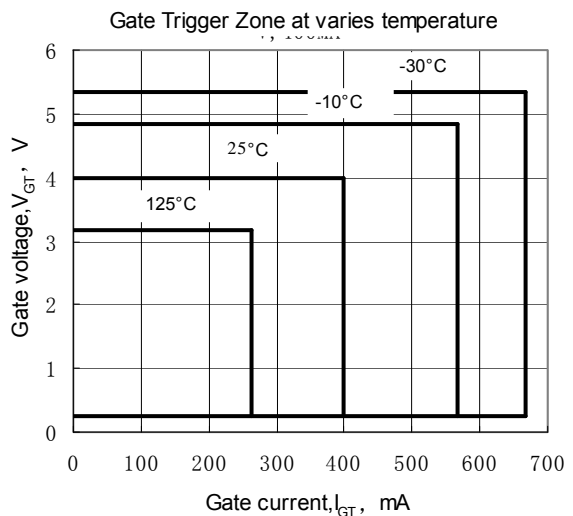


Fig. 6

Outline:

