

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

Part No. H76KPN-KT60cT

| | |
|---|--------------------|
| I_{T(AV)} | 1920A |
| V_{DRM}, V_RRM | 4600V 5000V |
| | 5200V 5500V |

| 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 =70°C | 125 | | | 1920 | A |
| V _{DRM} V _R RM | Repetitive peak off-state voltage Repetitive peak reverse voltage | tp=10ms | 125 | 4600 | | 5500 | V |
| I _{DRM} I _R RM | Repetitive peak current | at V _{DRM} at V _R RM | 125 | | | 350 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave | 125 | | | 22 | kA |
| I ² t | I ² t for fusing coordination | V _R =0.6V _R RM | | | | 2420 | A ² s*10 ³ |
| V _{TO} | Threshold voltage | | 125 | | | 1.01 | V |
| r _T | On-state slope resistance | | | | | 0.36 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =3000A, F=40kN | 125 | | | 2.20 | V |
| dv/dt | Critical rate of rise of off-state voltage | V _{DM} =0.67V _{DRM} | 125 | | | 2000 | V/μs |
| di/dt | Critical rate of rise of on-state current | V _{DM} = 67%V _{DRM} to 3000A, Gate pulse tr ≤0.5μs IGM = 1.5A | 125 | | | 200 | A/μs |
| Q _{rr} | Recovery charge | I _{TM} =2000A, tp=4000μs, di/dt=-5A/μs, V _R =100V | 125 | | 3500 | | 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 | | | 25 | | 200 | mA |
| I _L | Latching current | | | | | 1000 | 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 40.0kN | | | | 0.010 | °C /W |
| R _{th(c-h)} | Thermal resistance case to heatsink | | | | | 0.003 | °C /W |
| F _m | Mounting force | | | 35 | 40 | 47 | kN |
| T _{vj} | Junction temperature | | | -40 | | 125 | °C |
| T _{stg} | Stored temperature | | | -40 | | 140 | °C |
| W _t | Weight | | | | 880 | | g |
| Outline | KT60cT | | | | | | |

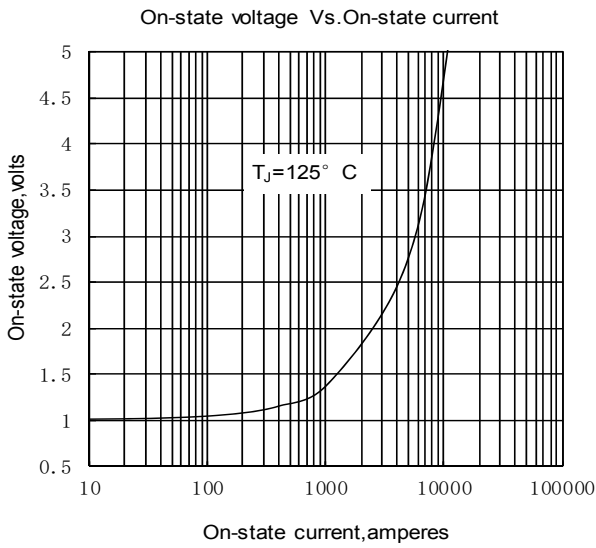


Fig.1

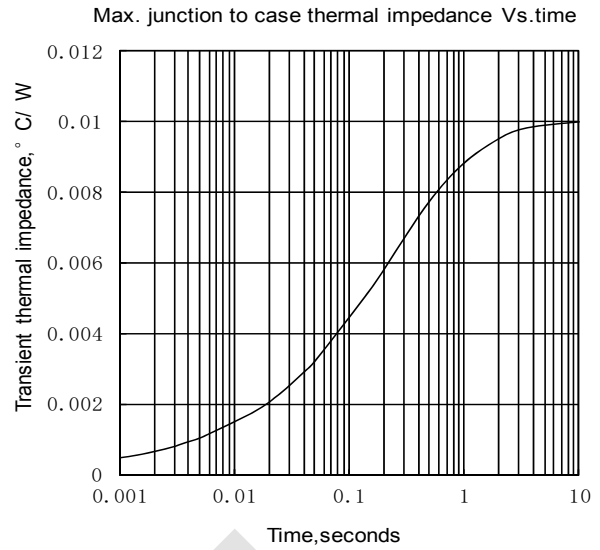


Fig.2

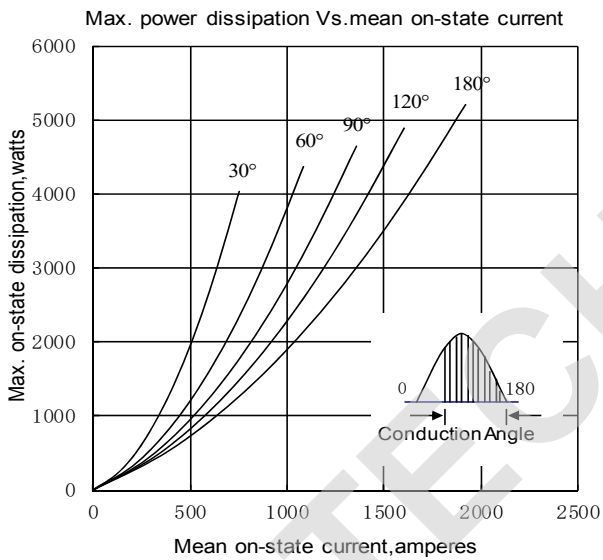


Fig.3

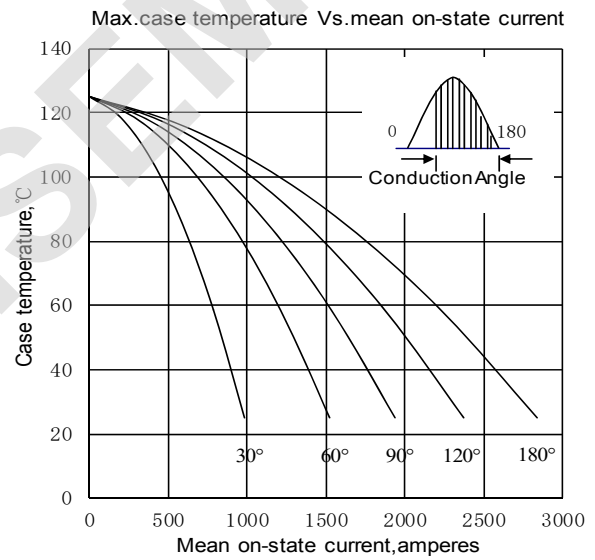


Fig.4

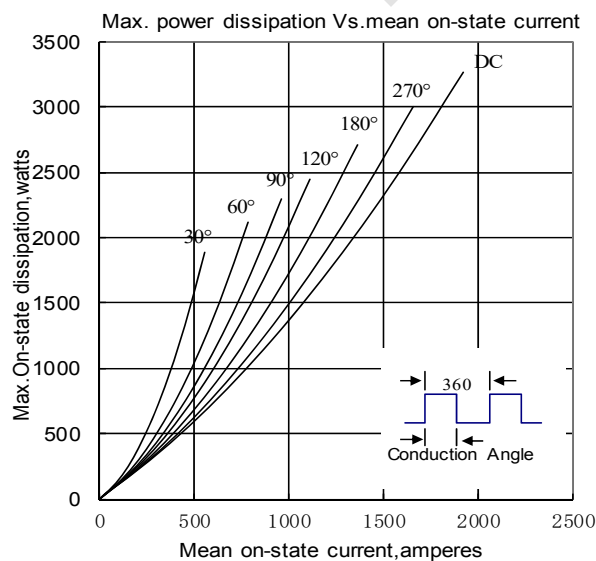


Fig.5

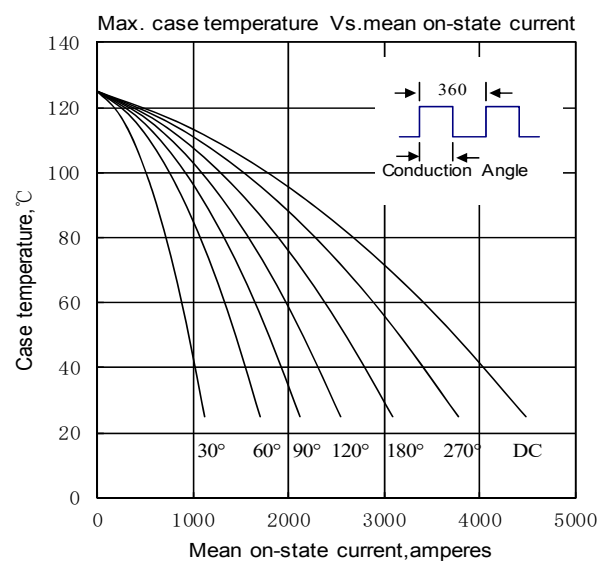


Fig.6

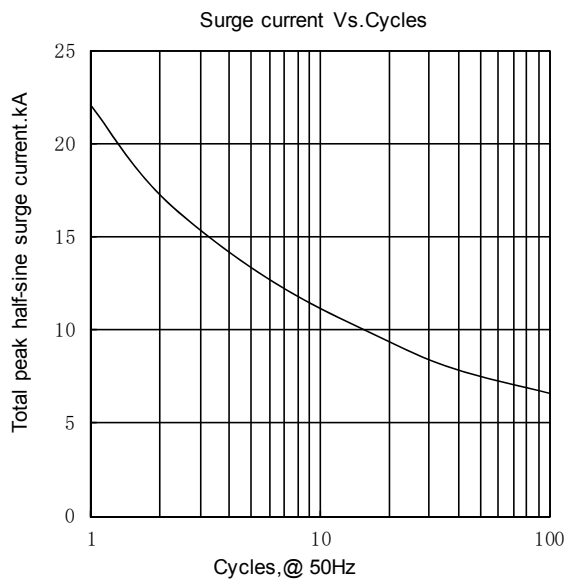


Fig.7

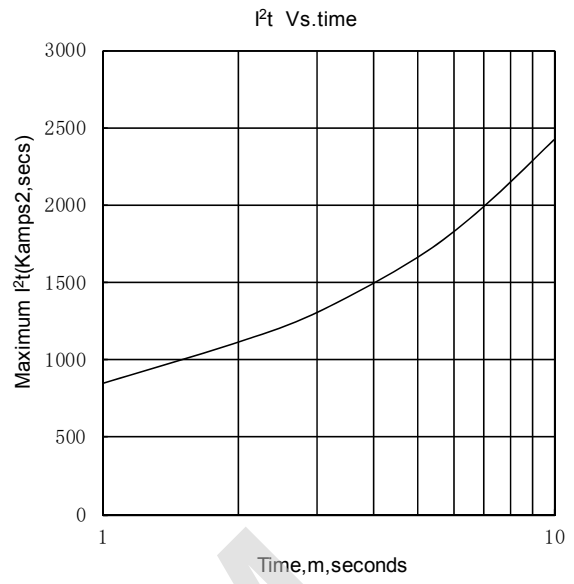


Fig.8

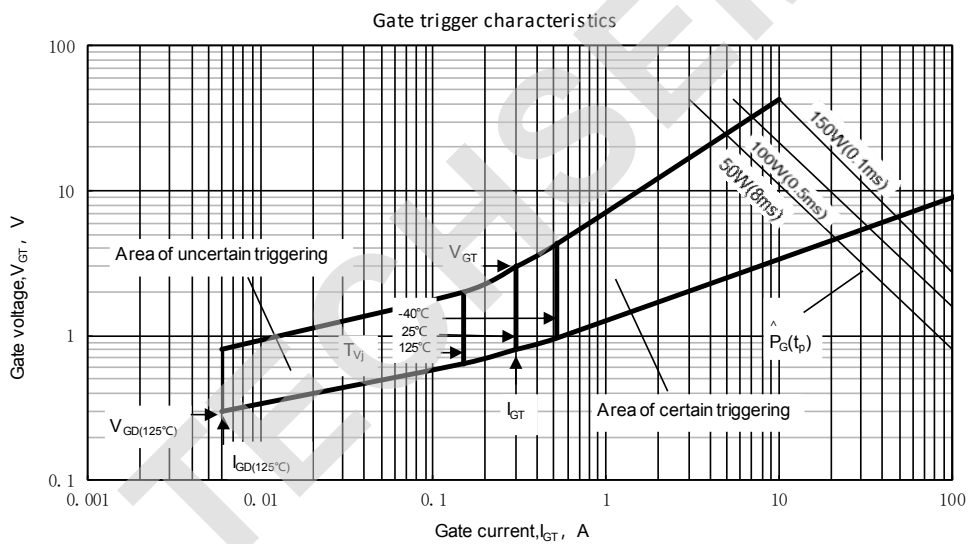
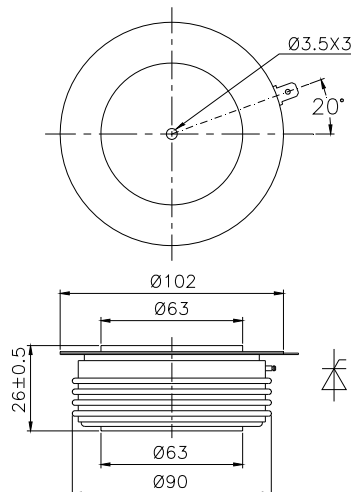


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.