



Features:

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

Typical Applications:

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

Part No. H100KPU-KT100dT

I_{T(AV)} 2000A
V_{DRM}, V_{RRM} 8000V
8500V

| 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 | 115 | | | 2000 | A |
| I _{DRM} I _{RRM} | Repetitive peak current | at V _{DRM} tp=10ms at V _{RRM} tp=10ms | | 115 | | | 600 | mA |
| I _{TSM} | Surge on-state current | 10ms half sine wave V _R =0.6V _{RRM} | | 115 | | | 35 | kA |
| I ² t | I ² t for fusing coordination | | | | | | 6125 | 10 ³ A ² s |
| V _{TO} | Threshold voltage | | | 115 | | | 1.32 | V |
| r _T | On-state slope resistance | | | | | | 0.52 | mΩ |
| V _{TM} | Peak on-state voltage | I _{TM} =1500A, F=90kN | | 25 | | | 2.00 | V |
| dv/dt | Critical rate of rise of off-state voltage | V _{DM} =0.67V _{DRM} | | 115 | | | 2000 | V/μs |
| di/dt | Critical rate of rise of on-state current | V _{DM} =67%V _{DRM} , Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A | | 115 | | | 200 | A/μs |
| Q _{rr} | Recovery charge | I _{TM} =2000A, tp=4000μs, di/dt=-5A/μs, V _R =50V | | 115 | | 5000 | | μC |
| I _{GT} | Gate trigger current | | | | 40 | | 300 | mA |
| V _{GT} | Gate trigger voltage | V _A =12V, I _A =1A | | 25 | 0.8 | | 3.0 | V |
| I _H | Holding current | | | | 25 | | 200 | mA |
| V _{GD} | Non-trigger gate voltage | V _{DM} =67%V _{DRM} | | 115 | | | 0.3 | V |
| R _{th(j-c)} | Thermal resistance Junction to case | Double side cooled | | | | | 0.0057 | °C/W |
| R _{th(c-h)} | Thermal resistance case to heatsink | Clamping force 90kN | | | | | 0.0015 | |
| F _m | Mounting force | | | | 81 | 90 | 108 | kN |
| T _{vj} | Junction temperature | | | | -40 | | 115 | °C |
| T _{stg} | Stored temperature | | | | -40 | | 140 | °C |
| W _t | Weight | | | | | 2500 | | g |
| Outline | KT100dT | | | | | | | |

Outline:

