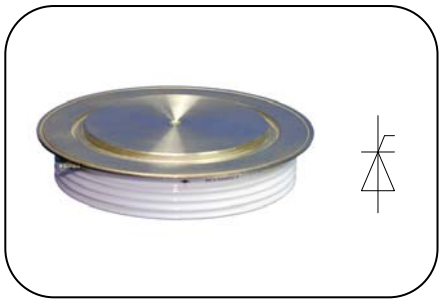


**Features：**

- 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. H150KPU-KT140cT**

| | | |
|---|---|---|
| $I_{T(AV)}$ | 4200A | |
| $V_{DRM}$,$V_{RRM}$ | 7500V | 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 | 100 | | | 4200 | A |
| $V_{DRM}$ $V_{RRM}$ | Repetitive peak off-state voltage Repetitive peak reverse voltage | tp=10ms | 125 | 7300 | | 8500 | V |
| $I_{DRM}$ $I_{RRM}$ | Repetitive peak current | at $V_{DRM}$ at $V_{RRM}$ | 100 | | | 800 | mA |
| | | @7000V, DC | 25 | | | 100 | μA |
| $I_{TSM}$ | Surge on-state current | 10ms half sine wave $V_R$=0.6$V_{RRM}$ | 100 | | | 100 | kA |
| $I^2t$ | $I^2t$ for fusing coordination | | | | | 50000 | $10^3A^2s$ |
| $V_{TO}$ | Threshold voltage | | 100 | | | 1.56 | V |
| $r_T$ | On-state slope resistance | | | | | 0.12 | mΩ |
| $V_{TM}$ | Peak on-state voltage | $I_{TM}$=5000A, F=120kN | 25 | | | 2.40 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}$=0.67$V_{DRM}$ | 100 | | | 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 | 100 | | | 600 | A/μs |
| $Q_{rr}$ | Recovery charge | $I_{TM}$=3000A, tp=4000μs, di/dt=-5A/μs, $V_R$=100V | 100 | | 9200 | | μC |
| $I_{GT}$ | Gate trigger current | $V_A$=12V, $I_A$=1A | 25 | 40 | | 300 | mA |
| $V_{GT}$ | Gate trigger voltage | | | 0.8 | | 3.5 | V |
| $I_H$ | Holding current | | | 20 | | 1000 | mA |
| $I_L$ | Latching current | | | | | 1000 | mA |
| $V_{GD}$ | Non-trigger gate voltage | $V_{DM}$=67%$V_{DRM}$ | 100 | | | 0.3 | V |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | At 180° sine, double side cooled Clamping force120kN | | | | 0.0020 | °C /W |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | | | | | 0.0005 | |
| $F_m$ | Mounting force | | | 165 | 175 | 190 | kN |
| $T_{vj}$ | Junction temperature | | | -40 | | 100 | °C |
| $T_{stg}$ | Stored temperature | | | -40 | | 140 | °C |
| $W_t$ | Weight | | | | 4000 | | g |
| Outline | KT140cT | | | | | | |

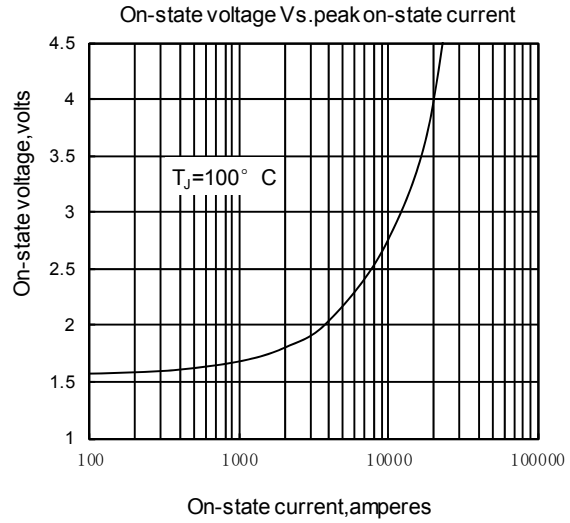



Fig1

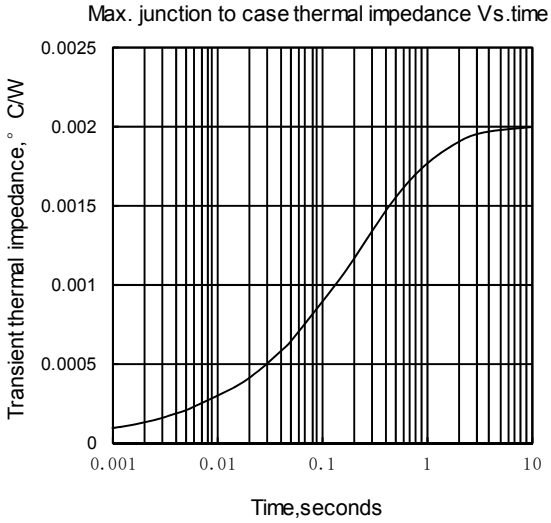



Fig2

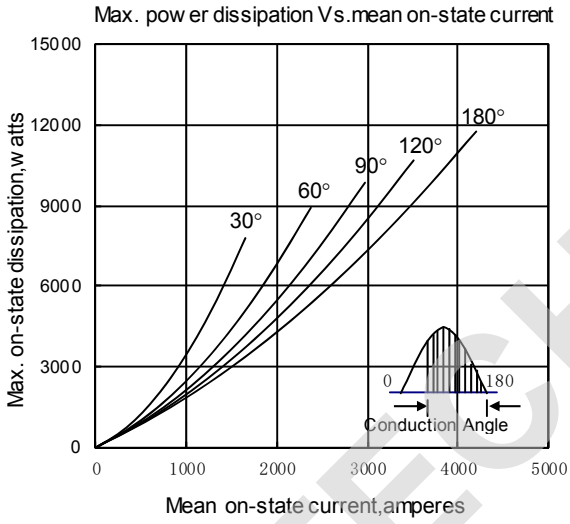



Fig3

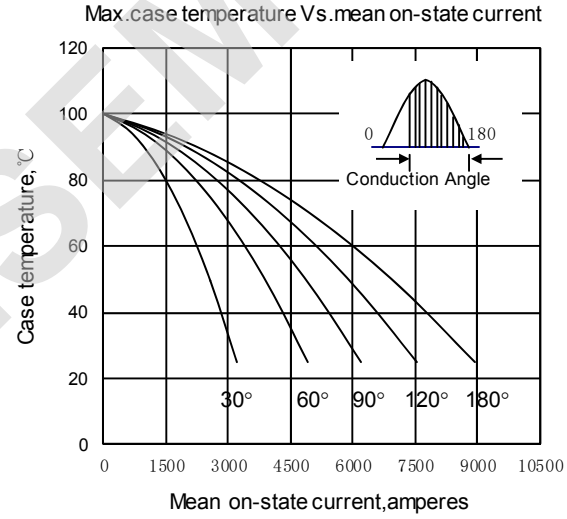



Fig4

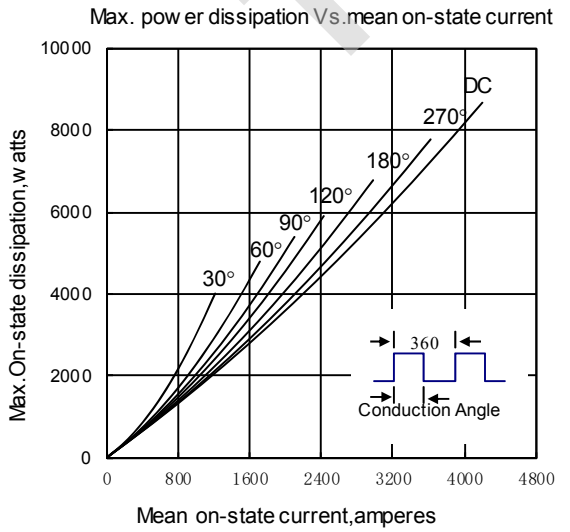



Fig5

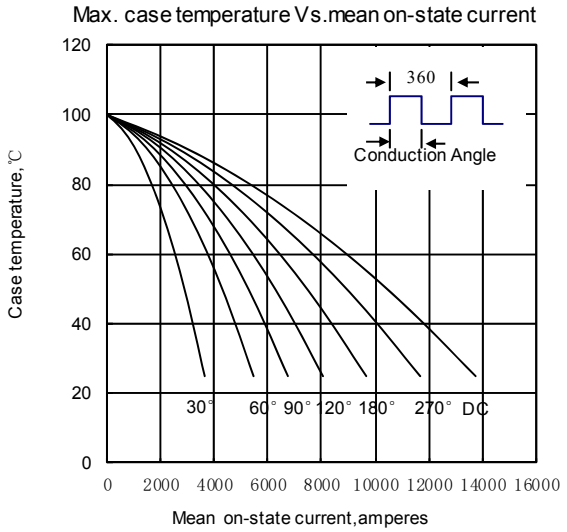



Fig6

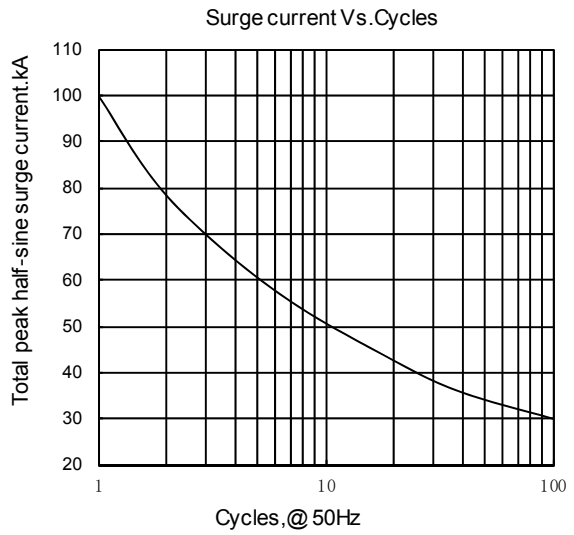



Fig7

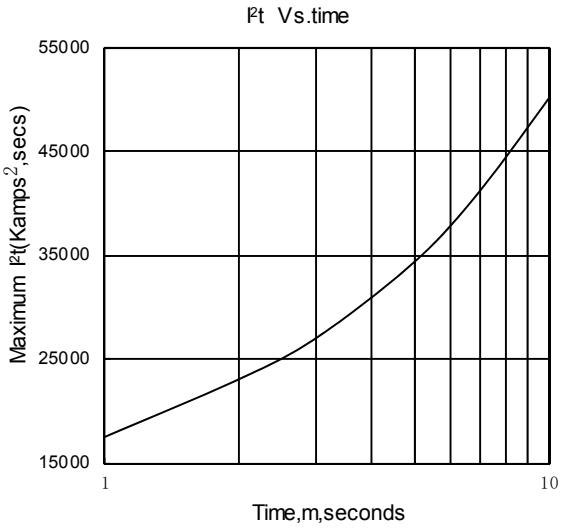



Fig8

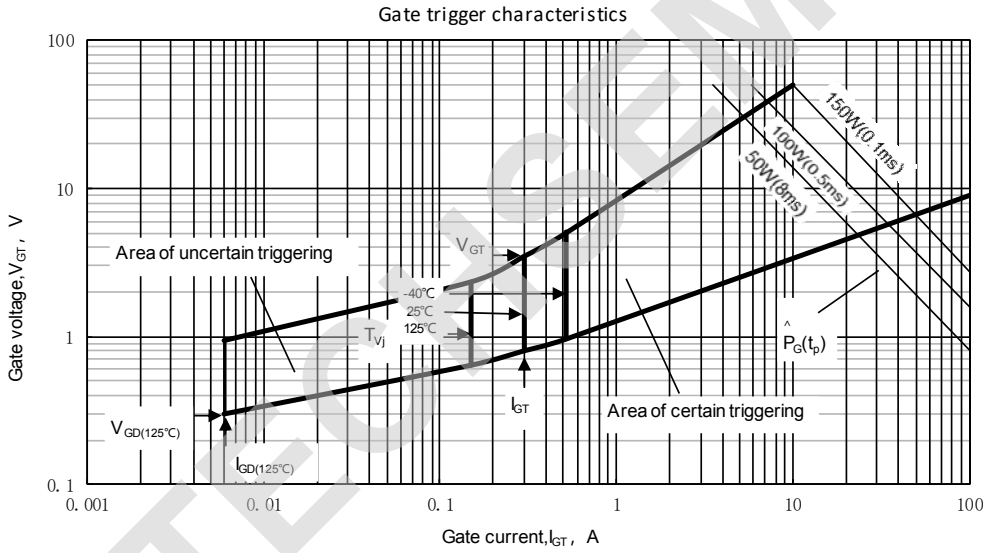
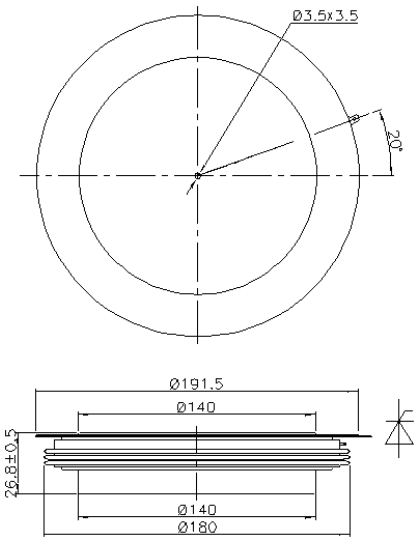



Fig.9

**Outline:**

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