**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

| | |
|---|---|
| $I_{T(AV)}$ | **600A** |
| $V_{DRM}/V_{RRM}$ | **7300 ～ 8500V** |
| $I_{TSM}$ | **9.8 kA** |
| $I^2t$ | **480 $10^3A^2S$** |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_j$(°C) | VALUE | | | UNIT |
|---|---|---|---|---|---|---|---|
| | | | | Min | Type | Max | |
| $I_{T(AV)}$ | Mean on-state current | 180° half sine wave 50Hz<br>Double side cooled, $T_C$=70°C | 125 | | | 600 | A |
| $V_{DRM}$<br>$V_{RRM}$ | Repetitive peak off-state voltage<br>Repetitive peak reverse voltage | tp=10ms | 125 | 7300 | | 8500 | V |
| $I_{DRM}$<br>$I_{RRM}$ | Repetitive peak current | @ $V_{DRM}$<br>@ $V_{RRM}$ | 125 | | | 200 | mA |
| $I_{TSM}$ | Surge on-state current | 10ms half sine wave<br>$V_R$=0.6$V_{RRM}$ | 125 | | | 9.8 | kA |
| $I^2t$ | $I^2t$ for fusing coordination | | | | | 480 | $A^2s*10^3$ |
| $V_{TO}$ | Threshold voltage | | 125 | | | 1.04 | V |
| $r_T$ | On-state slope resistance | | | | | 2.33 | mΩ |
| $V_{TM}$ | Peak on-state voltage | $I_{TM}$=1000A, F=24kN | 25 | | | 2.95 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}$=0.67$V_{DRM}$ | 125 | | | 2000 | V/μs |
| di/dt | Critical rate of rise of on-state current | $V_{DM}$= 67%$V_{DRM}$ to 2000A,<br>Gate pulse tr ≤0.5μs $I_{GM}$=2.0A | 125 | | | 100 | A/μs |
| $Q_{rr}$ | Recovery charge | $I_{TM}$=2000A, tp=4000μs, di/dt=-5A/μs,<br>$V_R$=100V | 125 | | 2500 | | 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 | | | | | 500 | mA |
| $V_{GD}$ | Non-trigger gate voltage | $V_{DM}$=0.67$V_{DRM}$ | 125 | | | 0.3 | V |
| $R_{th(j-C)}$ | Thermal resistance<br>Junction to case | D.C.，double side cooled<br>Clamping force 24.0kN | | | | 0.022 | °C /W |
| $R_{th(C-h)}$ | Thermal resistance<br>case to heatsink | | | | | 0.005 | °C /W |
| $F_m$ | Mounting force | | | 19 | 24 | 26 | kN |
| $T_{vj}$ | Junction temperature | | | -40 | | 125 | °C |
| $T_{stg}$ | Stored temperature | | | -40 | | 140 | °C |
| $W_t$ | Weight | | | | 560 | | g |
| Outline | P24 | | | | | | |

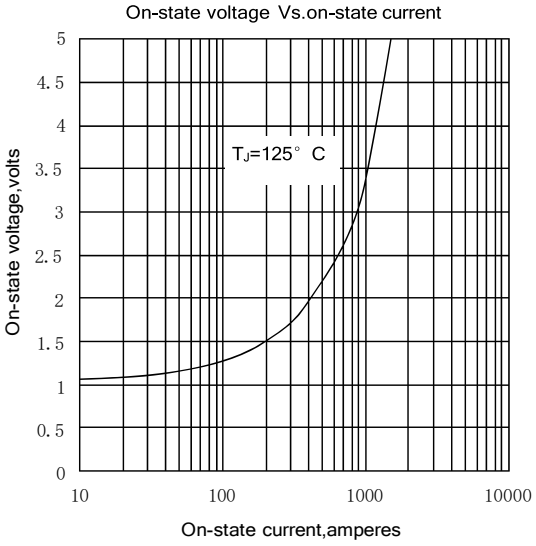



Fig.1

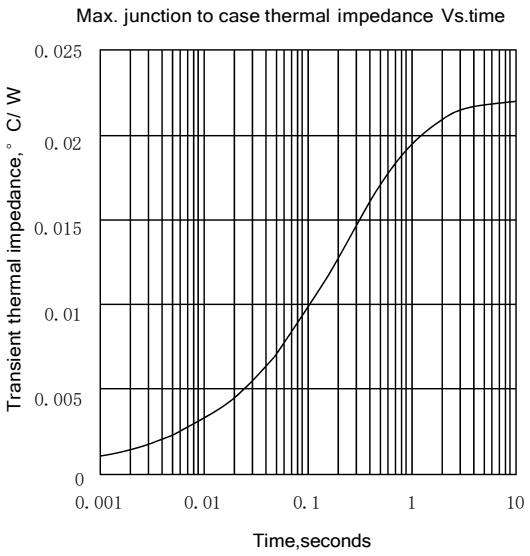



Fig.2

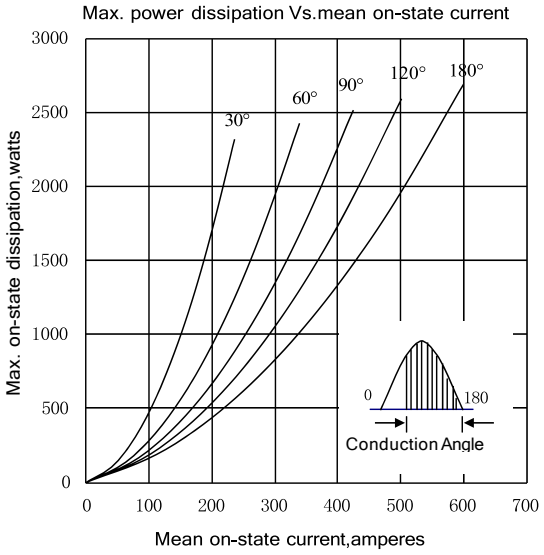



Fig.3

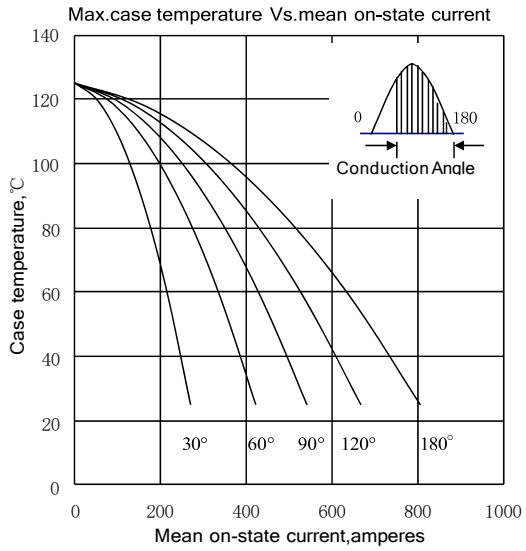



Fig.4

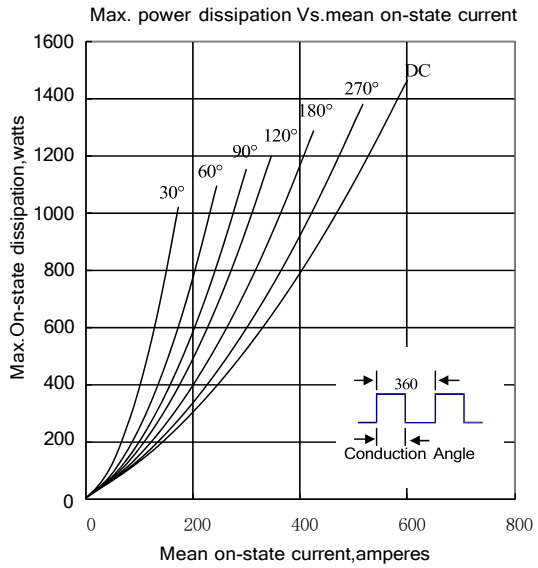



Fig.5

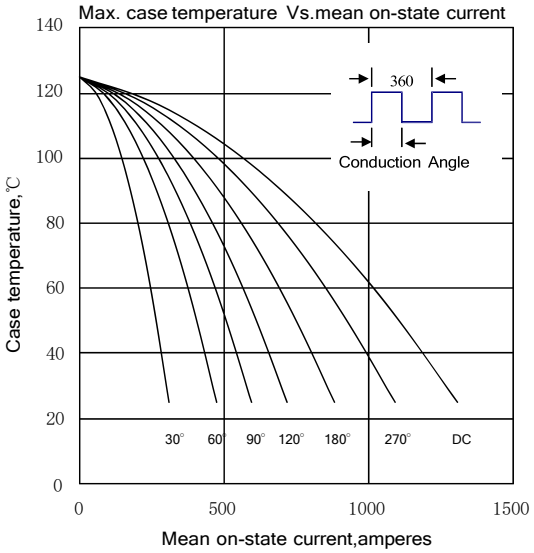



Fig.6

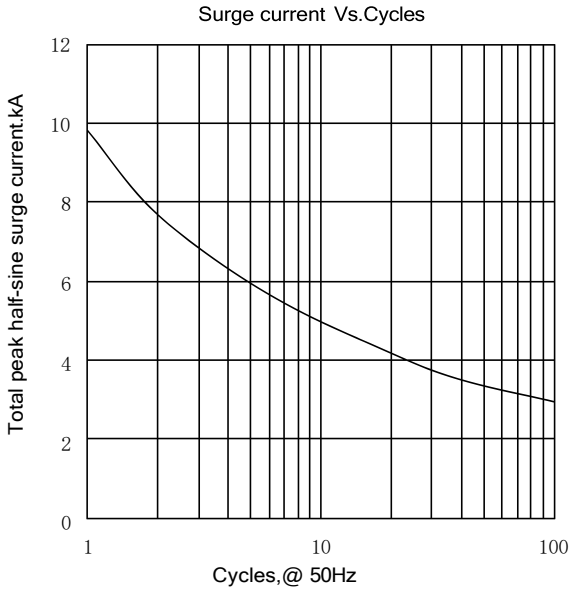



Fig.7

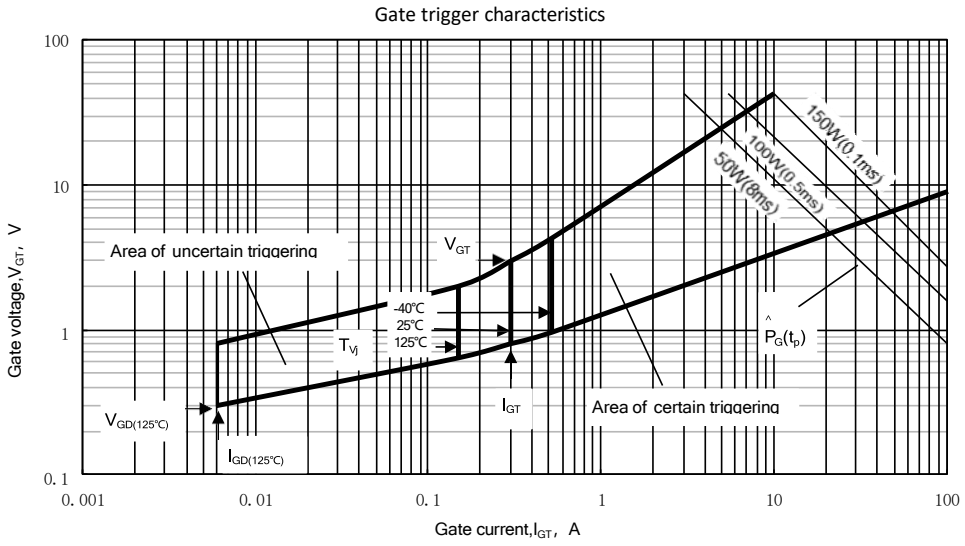
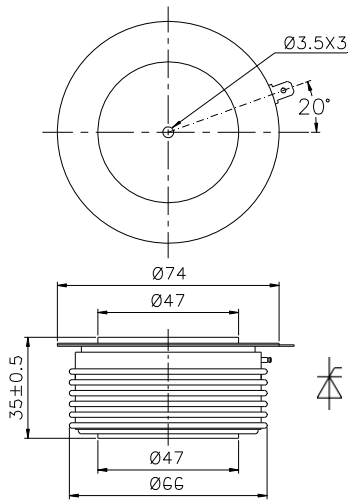



Fig.8

**Outline:**

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