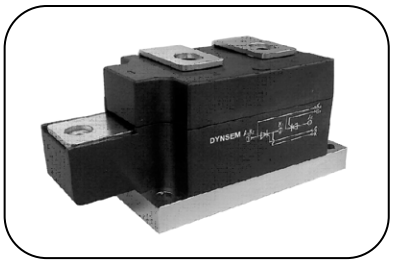
# DSKT 200
# Thyristor Modules



DSPACK 3

**Features：**

- Isolated mounting base 4000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

**Typical Applications**

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

| $V_{DSM}$,$V_{RSM}$ | $V_{DRM}$,$V_{RRM}$ | Type & Outline |
|---|---|---|
| 2700V | 2600V | DSKT 200-26 |
| 2900V | 2800V | DSKT 200-28 |
| 3100V | 3000V | DSKT 200-30 |
| 3300V | 3200V | DSKT 200-32 |
| 3500V | 3400V | DSKT 200-34 |
| 3700V | 3600V | DSKT 200-36 |

| 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>Single side cooled, $T_c$=85°C | 125 | | | 200 | A |
| $I_{T(RMS)}$ | RMS on-state current | | 125 | | | 314 | A |
| $I_{DRM}$<br>$I_{RRM}$ | Repetitive peak current | at $V_{DRM}$<br>at $V_{RRM}$ | 125 | | | 35 | mA |
| $I_{TSM}$ | Surge on-state current | 10ms half sine wave<br>$V_R$=60%$V_{RRM}$ | 125 | | | 8.0 | KA |
| $I^2t$ | $I^2T$ for fusing coordination | | | | | 320 | $A^2s*10^3$ |
| $V_{TO}$ | Threshold voltage | | 125 | | | 0.96 | V |
| $r_T$ | On-state slope resistance | | | | | 1.30 | mΩ |
| $V_{TM}$ | Peak on-state voltage | $I_{TM}$=600A | 25 | | | 2.55 | V |
| dv/dt | Critical rate of rise of off-state voltage | $V_{DM}$=67%$V_{DRM}$ | 125 | | | 800 | V/μs |
| di/dt | Critical rate of rise of on-state current | **$I_{TM}$ =400A,**Gate source 1.5A<br>$t_r$ ≤0.5μs Repetitive | 125 | | | 100 | A/μs |
| $I_{GT}$ | Gate trigger current | $V_A$=12V, $I_A$=1A | 25 | 30 | | 180 | mA |
| $V_{GT}$ | Gate trigger voltage | | | 1.0 | | 2.5 | V |
| $I_H$ | Holding current | | | 20 | | 150 | mA |
| $V_{GD}$ | Non-trigger gate voltage | $V_{DM}$=67%$V_{DRM}$ | 125 | 0.2 | | | V |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to case | Single side cooled per chip | | | | 0.120 | °C /W |
| $R_{th(c-h)}$ | Thermal resistance<br>case to heat sink | Single side cooled per chip | | | | 0.04 | °C /W |
| $V_{iso}$ | Isolation voltage | 50Hz,R.M.S,t=1min,$I_{iso}$:1mA(MAX) | | 4000 | | | V |
| $F_m$ | Thermal connection torque (M8) | | | | 12.0 | | N·m |
| | Mounting torque (M6) | | | | 6.0 | | N·m |
| $T_{stg}$ | Stored temperature | | | -40 | | 125 | °C |
| $W_t$ | Weight | | | | 820 | | g |
| Outline | DSPACK 3 | | | | | | |

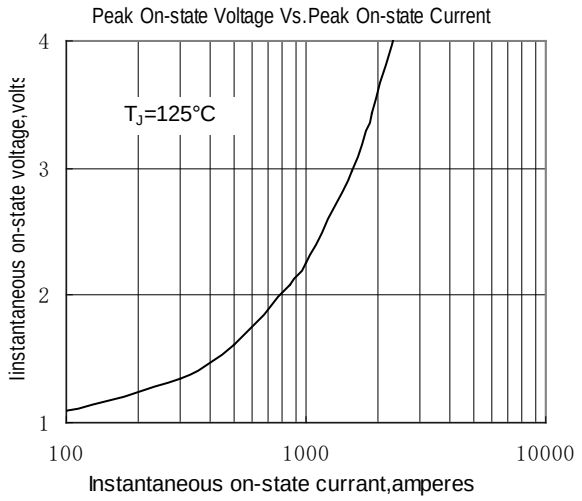



Fig.1

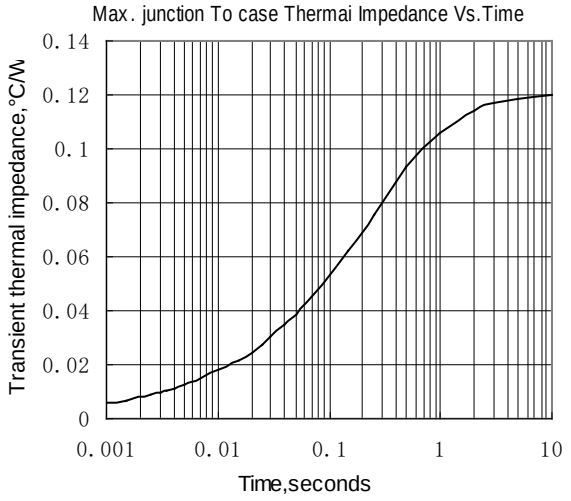



Fig.2

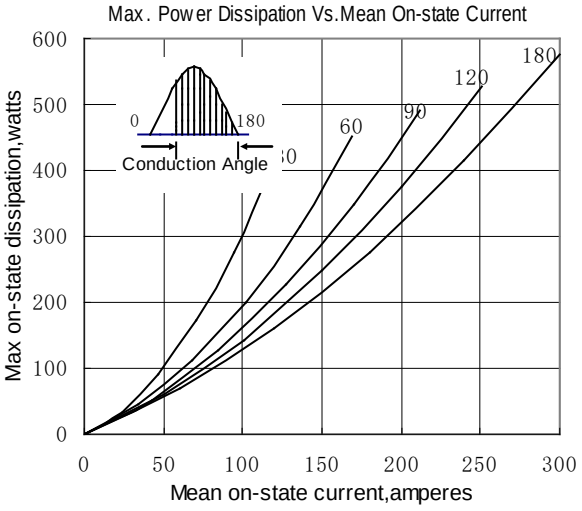



Fig.3

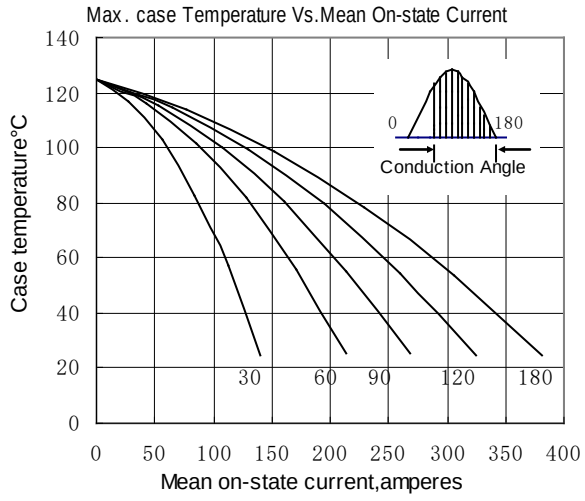



Fig.4

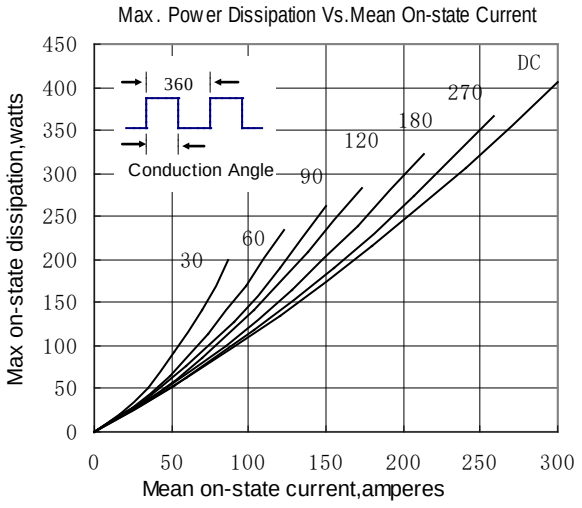



Fig.5

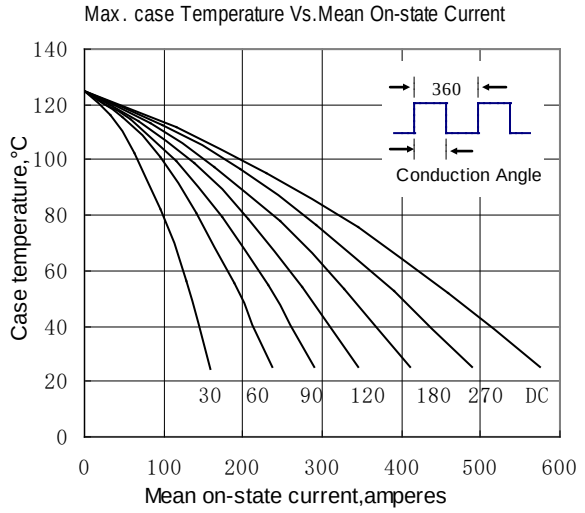



Fig.6

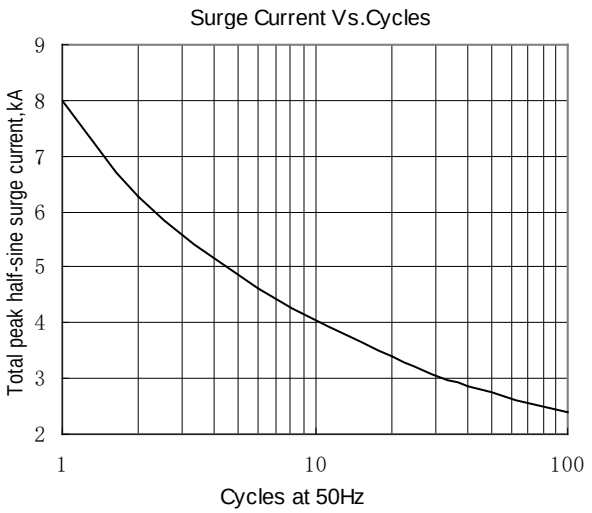



Fig.7

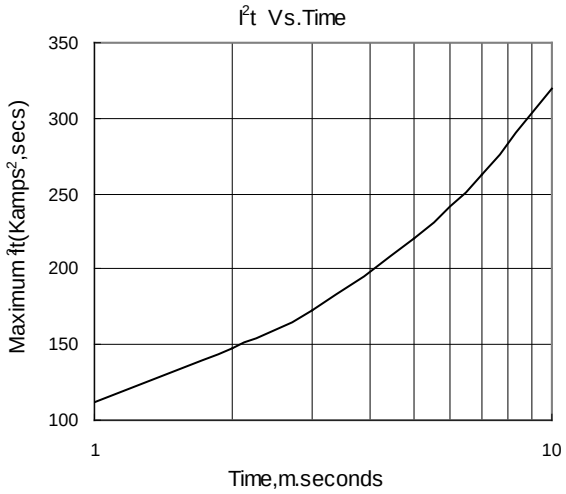



Fig.8

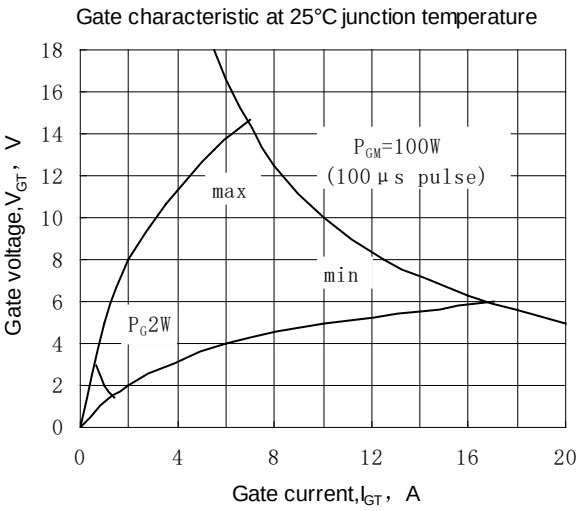



Fig.9

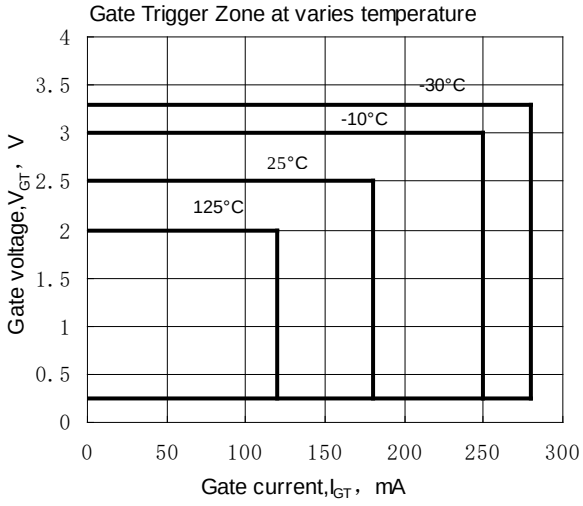



Fig.10

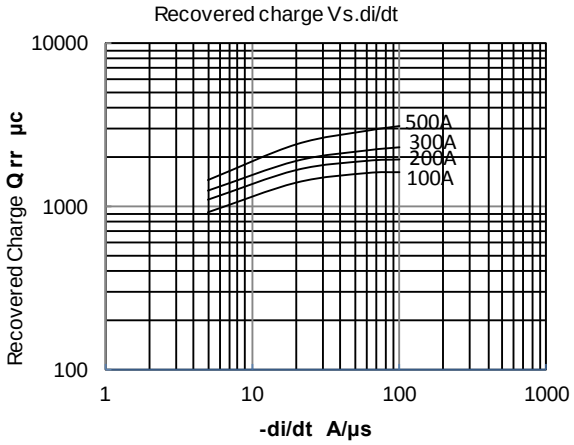



Fig.11

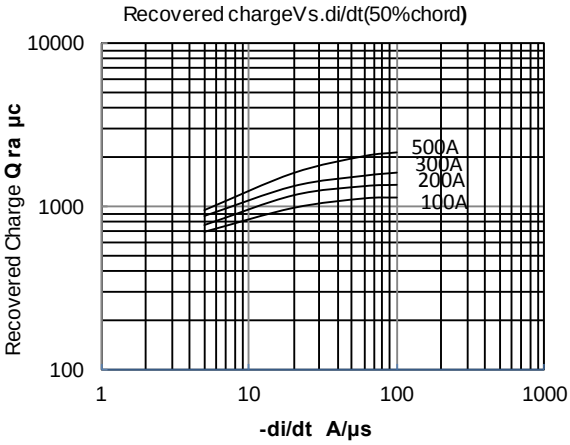



Fig.12

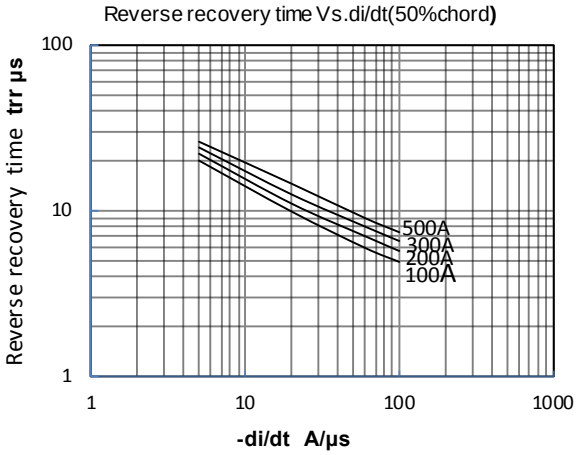



Fig.13

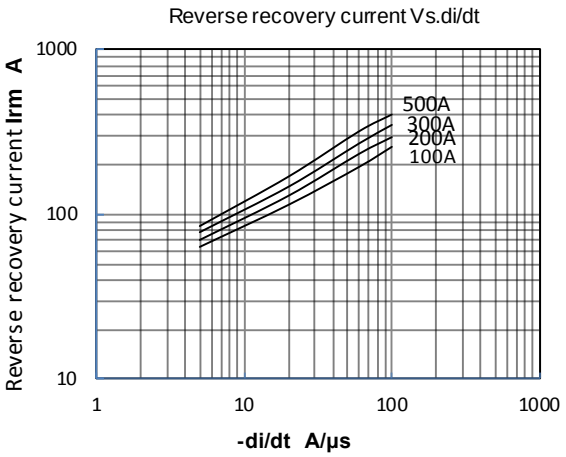
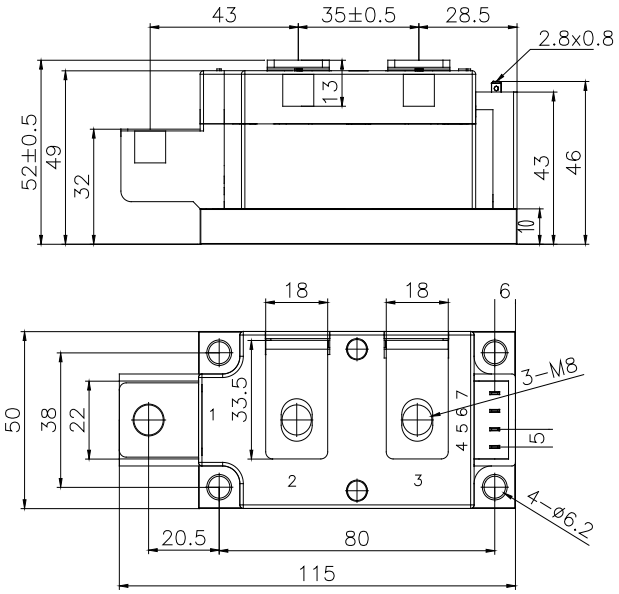
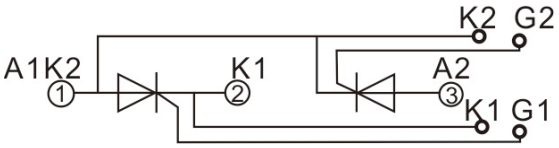



Fig.14

**Outline:**




**DSPACK 3**




**DSKT**