



$I_{T(AV)}$  **570A**  
 $V_{DRM}/V_{RRM}$  **600~1800V**  
 $I_{TSM}$   **$15A \times 10^3$**   
 $I^2t$   **$1125A^2 \cdot s \times 10^3$**

## Features:

- Isolated mounting base 2500V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

## Typical Applications

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

| SYMBOL                 | CHARACTERISTIC                                                       | TEST CONDITIONS                                                                                  | $T_J(^{\circ}C)$ | VALUE |      |       | UNIT               |
|------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------|-------|------|-------|--------------------|
|                        |                                                                      |                                                                                                  |                  | Min   | Type | Max   |                    |
| $I_{T(AV)}$            | Mean on-state current                                                | 180° half sine wave 50Hz<br>Single side cooled, $T_c=85^{\circ}C$                                | 125              |       |      | 570   | A                  |
| $I_{T(RMS)}$           | RMS on-state current                                                 |                                                                                                  | 125              |       |      | 785   | A                  |
| $V_{DRM}$<br>$V_{RRM}$ | Repetitive peak off-state voltage<br>Repetitive peak reverse voltage | $V_{DRM} \& V_{RRM}$ tp=10ms<br>$V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$<br>respectively | 125              | 600   |      | 1800  | V                  |
| $I_{DRM}$<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                                                                              | 125              |       |      | 15    | KA                 |
| $I^2t$                 | $I^2t$ for fusing coordination                                       | $V_R=60\%V_{RRM}$                                                                                |                  |       |      | 1125  | $A^2s \times 10^3$ |
| $V_{TO}$               | Threshold voltage                                                    |                                                                                                  | 125              |       |      | 0.80  | V                  |
| $r_T$                  | On-state slop resistance                                             |                                                                                                  |                  |       |      | 0.20  | mΩ                 |
| $V_{TM}$               | Peak on-state voltage                                                | $I_{TM}=1600A$                                                                                   | 25               |       |      | 1.45  | 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                            | Gate source 1.5A<br>$t_r \leq 0.5\mu s$ Repetitive                                               | 125              |       |      | 100   | A/μs               |
| $I_{GT}$               | Gate trigger current                                                 | $V_A=12V, I_A=1A$                                                                                | 25               | 30    |      | 200   | mA                 |
| $V_{GT}$               | Gate trigger voltage                                                 |                                                                                                  |                  | 1.0   |      | 3.0   | V                  |
| $I_H$                  | Holding current                                                      |                                                                                                  |                  | 20    |      | 200   | 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                                                                               |                  |       |      | 0.065 | $^{\circ}C/W$      |
| $R_{th(c-h)}$          | Thermal resistance<br>case to heatsink                               | Single side cooled                                                                               |                  |       |      | 0.024 | $^{\circ}C/W$      |
| $V_{iso}$              | Isolation voltage                                                    | 50Hz, R.M.S, t=1min, $I_{iso}: 1mA(MAX)$                                                         |                  | 2500  |      |       | V                  |
| $F_m$                  | Thermal connection torque(M10)                                       |                                                                                                  |                  |       | 12.0 |       | N·m                |
|                        | Mounting torque(M6)                                                  |                                                                                                  |                  |       | 6.0  |       | N·m                |
| $T_{stg}$              | Stored temperature                                                   |                                                                                                  |                  | -40   |      | 125   | $^{\circ}C$        |
| $W_t$                  | Weight                                                               |                                                                                                  |                  |       | 1300 |       | g                  |
| Outline                |                                                                      |                                                                                                  |                  |       |      |       |                    |

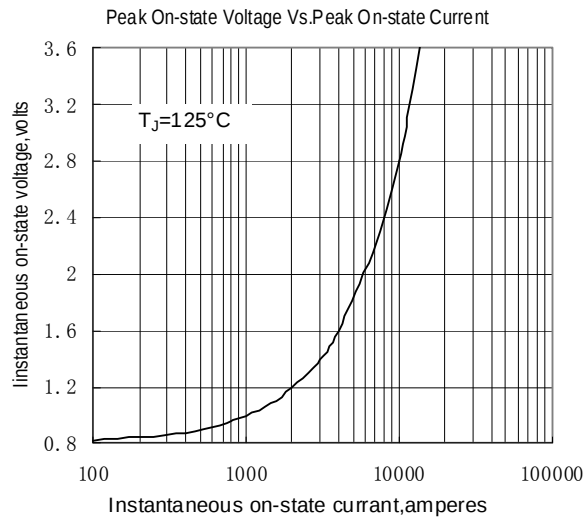


Fig.1

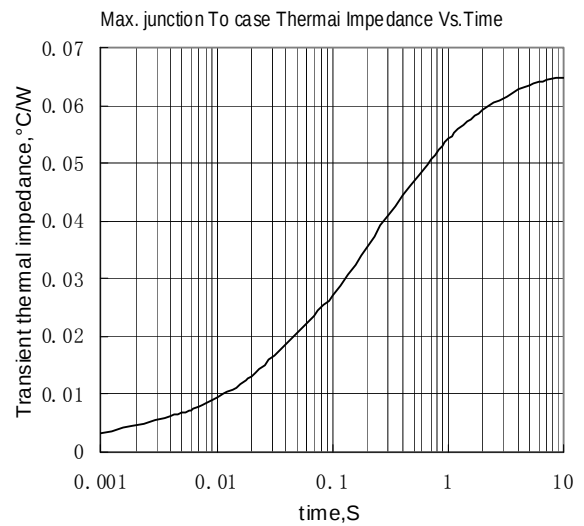


Fig.2

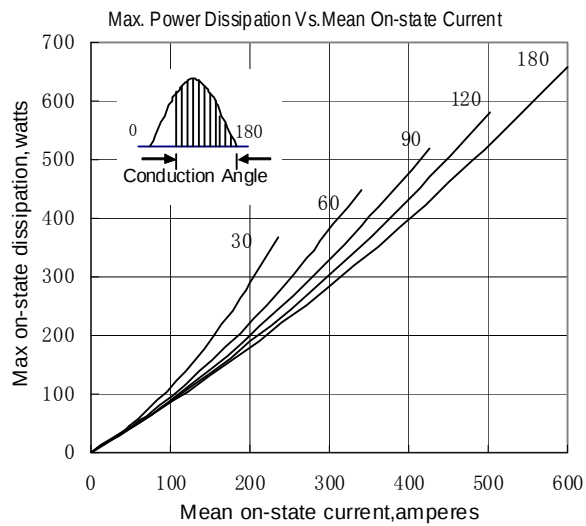


Fig.3

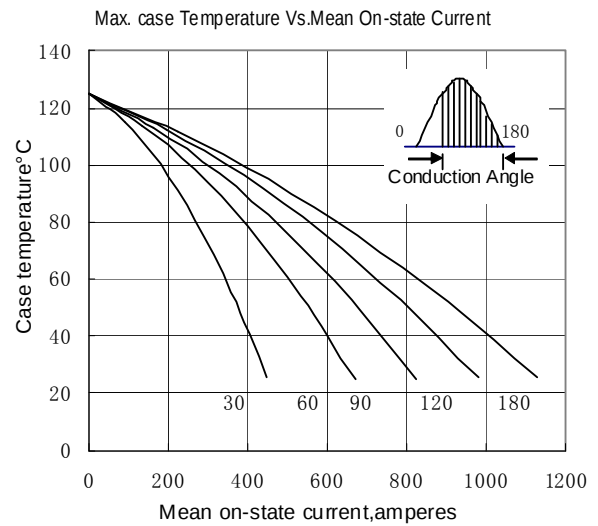


Fig.4

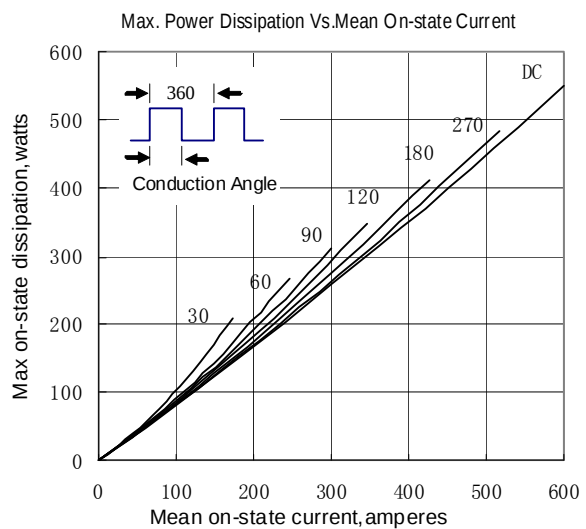


Fig.5

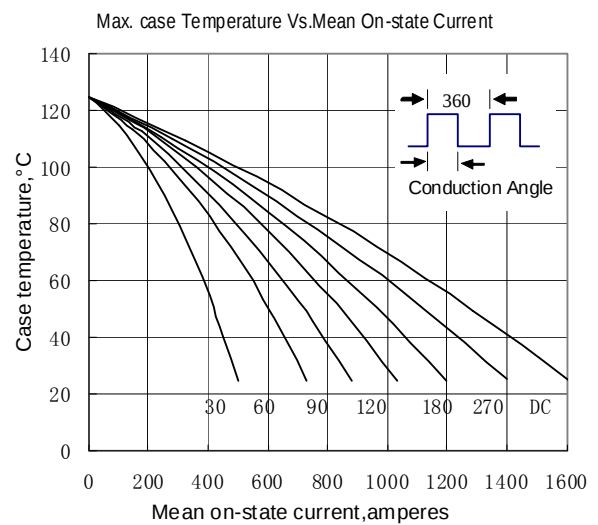


Fig.6

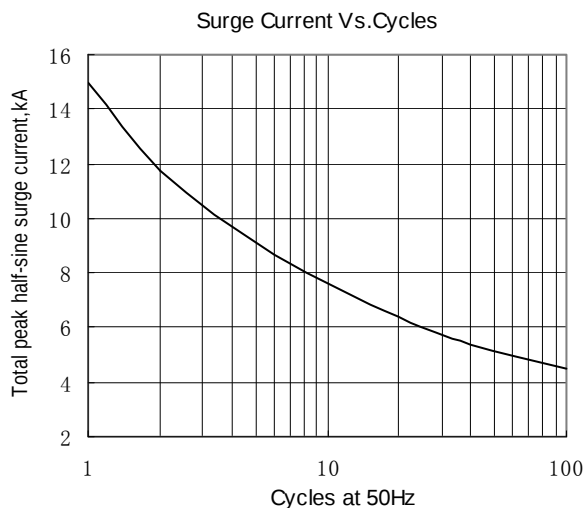


Fig.7

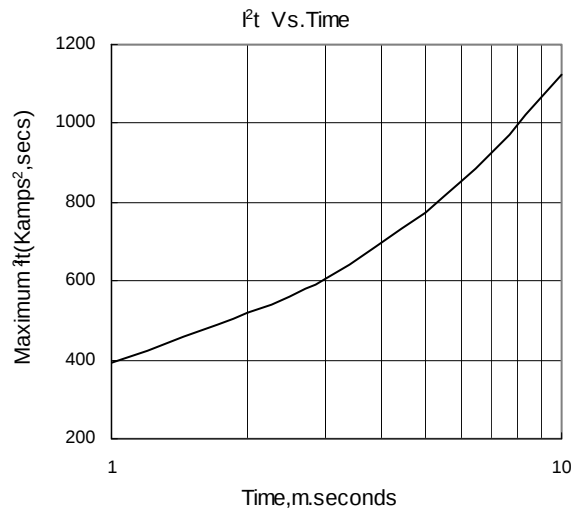


Fig.8

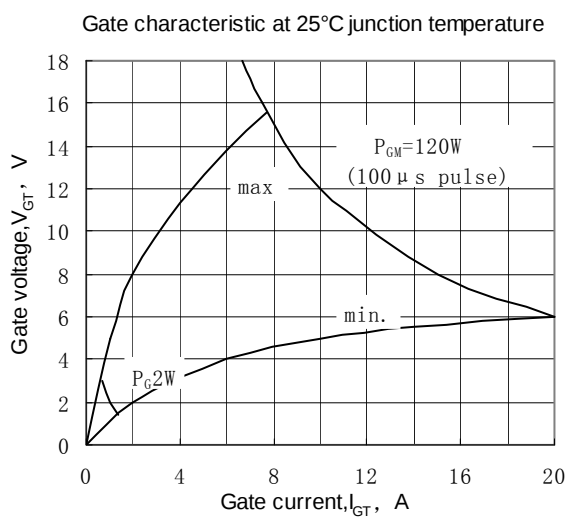


Fig.9

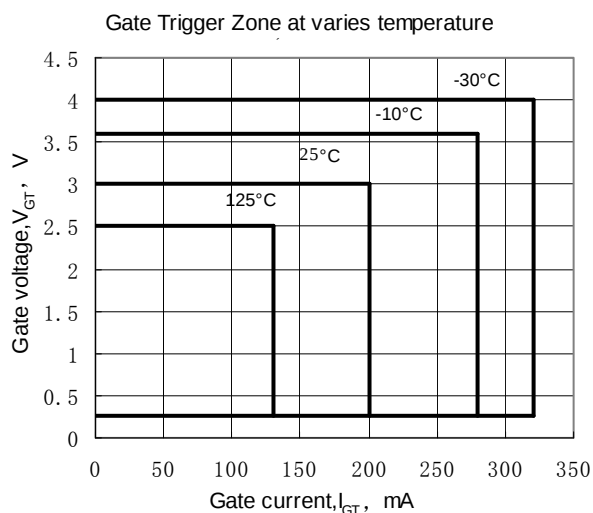


Fig.10

### Outline:

