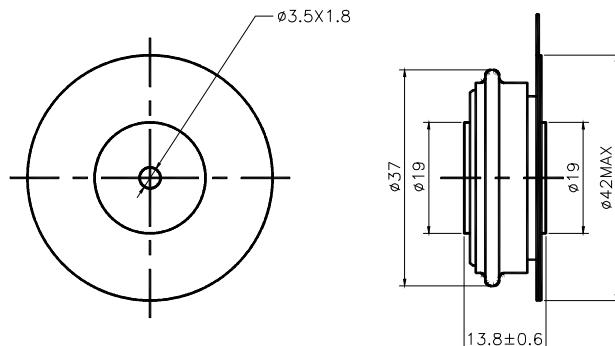


| SYMBOL        | CHARACTERISTIC                             | TEST CONDITIONS   | $T_j$ (°C) | VALUE |      |       | UNIT           |
|---------------|--|---|------------|-------|------|-------|----------------|
|               |  |   |            | Min   | Type | Max   |                |
| $I_{F(AV)}$   | Mean forward current                       | 180° half sine wave 50Hz<br>Double side cooled, $T_{hs}=55^\circ C$ | 150        |       |      | 600   | A              |
| $I_{F(AV)}$   | Mean forward current                       | 180° half sine wave 50Hz<br>Double side cooled, $T_{hs}=90^\circ C$ | 150        |       |      | 450   | A              |
| $V_{RRM}$     | Repetitive peak reverse voltage            | $V_{RRM}$ tp=10ms<br>$V_{RsM} = V_{RRM} + 100V$                     | 150        | 200   |      | 1000  | V              |
| $I_{RRM}$     | Repetitive peak current                    | at $V_{RRM}$  | 150        |       |      | 16    | mA             |
| $I_{FSM}$     | Surge forward current                      | 10ms half sine wave<br>$V_R=0.6V_{RRM}$                             | 150        |       |      | 7.8   | KA             |
| $I^2T$        | $I^2T$ for fusing coordination             |   |            |       |      | 304   | $A^2s * 10^3$  |
| $V_{FO}$      | Threshold voltage                          |   | 150        |       |      | 0.73  | V              |
| $r_F$         | Forward slop resistance                    |   |            |       |      | 0.68  | $m\Omega$      |
| $V_{FM}$      | Peak on-state voltage                      | $I_{TM}=1500A, F=5.0KN$   | 150        |       |      | 1.75  | V              |
| $I_{rm}$      | Reverse recovery current                   | $I_{TM}=600A, tp=1000\mu s,$<br>$di/dt=-40A/\mu s, V_R=50V$         | 150        |       |      | 70    | A              |
| $t_{rr}$      | Reverse recovery time                      |   |            |       |      | 4.0   | $\mu s$        |
| $Q_{rr}$      | Recovery charge                            |   |            |       |      | 140   | $\mu C$        |
| $R_{th(j-h)}$ | Thermal resistance<br>Junction to heatsink | At 180° sine double side cooled<br>Clamping force 5.0KN             |            |       |      | 0.090 | $^\circ C / W$ |
| $F_m$         | Mounting force                             |   |            | 3.3   |      | 5.5   | KN             |
| $T_{stg}$     | Stored temperature                         |   |            | -40   |      | 160   | $^\circ C$     |
| $W_t$         | Weight                                     |   |            |       | 50   |       | g              |
| Outline       |  | ZT19aT  |            |       |      |       |                |

## Outline



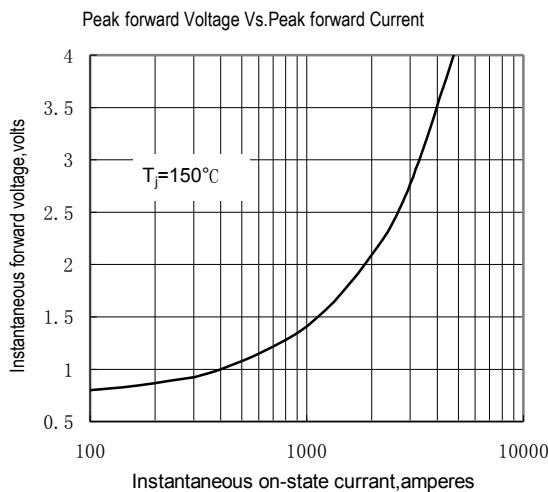


Fig.1

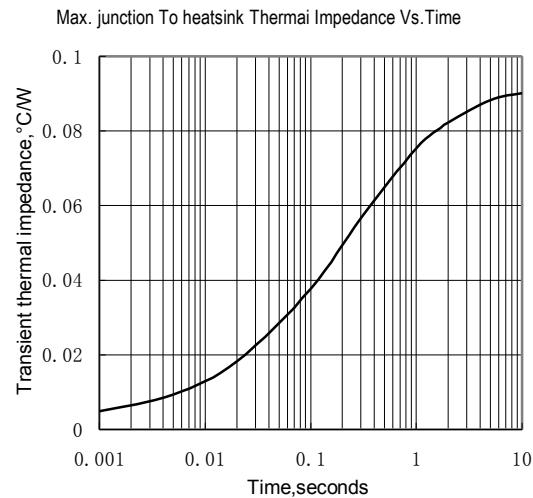


Fig.2

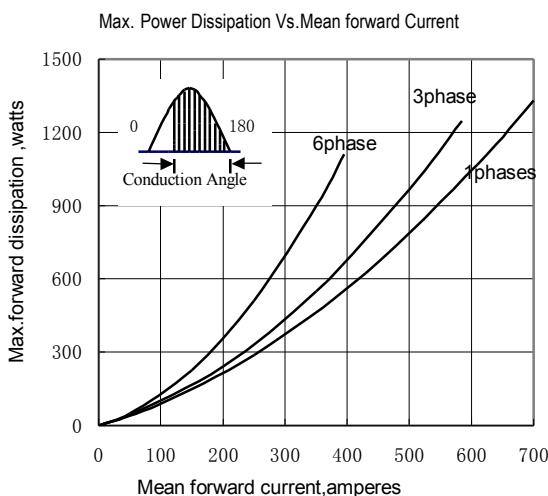


Fig.3

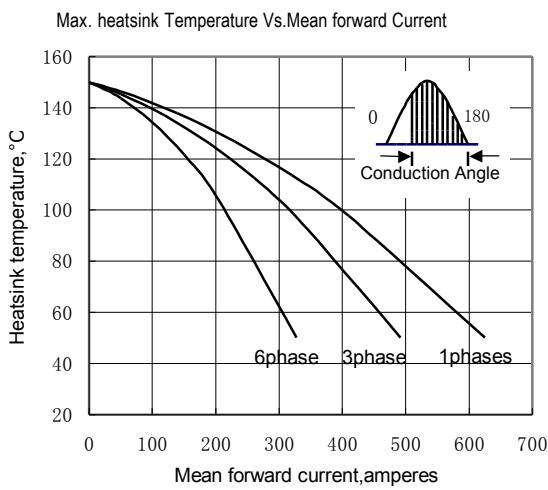


Fig.4

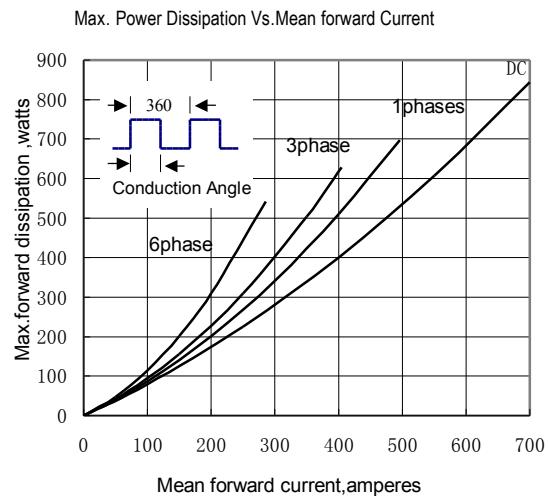


Fig.5

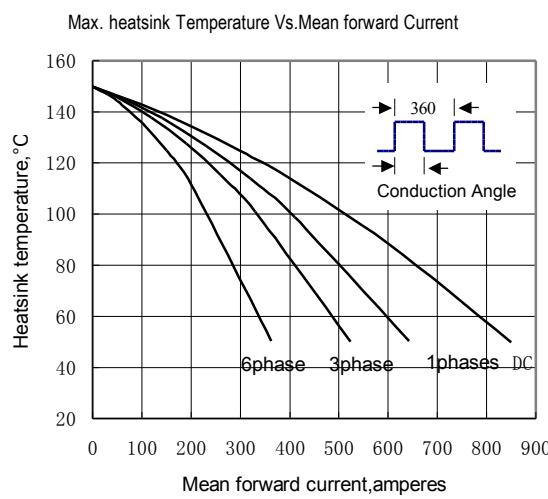


Fig.6