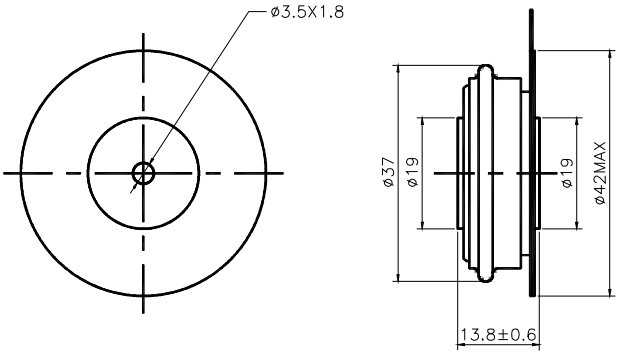


| SYMBOL               | CHARACTERISTIC                             | TEST CONDITIONS                                                         | T <sub>J</sub> (°C) | VALUE |      |       | UNIT                             |
|----------------------|--------------------------------------------|-------------------------------------------------------------------------|---------------------|-------|------|-------|----------------------------------|
|                      |                                            |                                                                         |                     | Min   | Type | Max   |                                  |
| I <sub>F(AV)</sub>   | Mean forward current                       | 180° half sine wave 50Hz<br>Double side cooled, T <sub>HS</sub> =55°C   | 150                 |       |      | 560   | A                                |
| I <sub>F(AV)</sub>   | Mean forward current                       | 180° half sine wave 50Hz<br>Double side cooled, T <sub>HS</sub> =90°C   | 150                 |       |      | 420   | A                                |
| V <sub>RRM</sub>     | Repetitive peak reverse voltage            | V <sub>RRM</sub> tp=10ms<br>V <sub>RSM</sub> = V <sub>RRM</sub> +100V   | 150                 | 1100  |      | 2000  | V                                |
| I <sub>RRM</sub>     | Repetitive peak current                    | at V <sub>RRM</sub>                                                     | 150                 |       |      | 16    | mA                               |
| I <sub>FSM</sub>     | Surge forward current                      | 10ms half sine wave                                                     | 150                 |       |      | 7.3   | KA                               |
| I <sup>2</sup> T     | I <sup>2</sup> T for fusing coordination   | V <sub>R</sub> =0.6V <sub>RRM</sub>                                     |                     |       |      | 265   | A <sup>2</sup> s*10 <sup>3</sup> |
| V <sub>FO</sub>      | Threshold voltage                          |                                                                         | 150                 |       |      | 0.70  | V                                |
| r <sub>F</sub>       | Forward slop resistance                    |                                                                         |                     |       |      | 0.86  | mΩ                               |
| V <sub>FM</sub>      | Peak on-state voltage                      | I <sub>TM</sub> =1500A, F=5KN                                           | 150                 |       |      | 1.99  | V                                |
| I <sub>rm</sub>      | Reverse recovery current                   | I <sub>TM</sub> =600A, tp=1000μs,<br>di/dt=-40A/μs, V <sub>R</sub> =50V | 150                 |       |      | 74.8  | A                                |
| t <sub>rr</sub>      | Reverse recovery time                      |                                                                         |                     |       |      | 4.0   | μs                               |
| Q <sub>rr</sub>      | Recovery charge                            |                                                                         |                     |       |      | 159.7 | μC                               |
| R <sub>th(j-h)</sub> | Thermal resistance<br>Junction to heatsink | At 180° sine double side cooled<br>Clamping force 5.0KN                 |                     |       |      | 0.090 | °C /W                            |
| F <sub>m</sub>       | Mounting force                             |                                                                         |                     | 3.3   |      | 5.5   | KN                               |
| T <sub>stg</sub>     | Stored temperature                         |                                                                         |                     | -40   |      | 160   | °C                               |
| W <sub>t</sub>       | Weight                                     |                                                                         |                     |       | 50   |       | g                                |
| Outline              | ZT19aT                                     |                                                                         |                     |       |      |       |                                  |

Outline



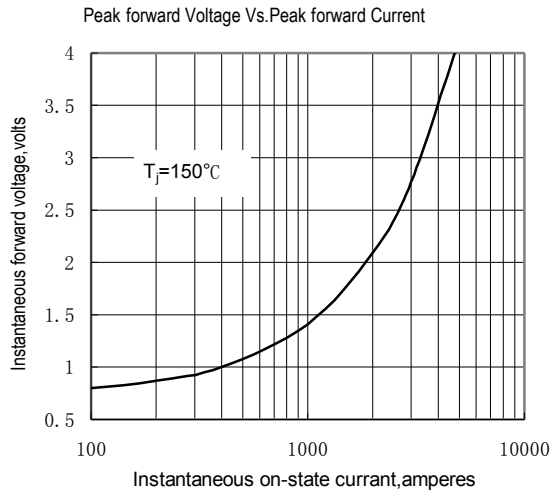


Fig.1

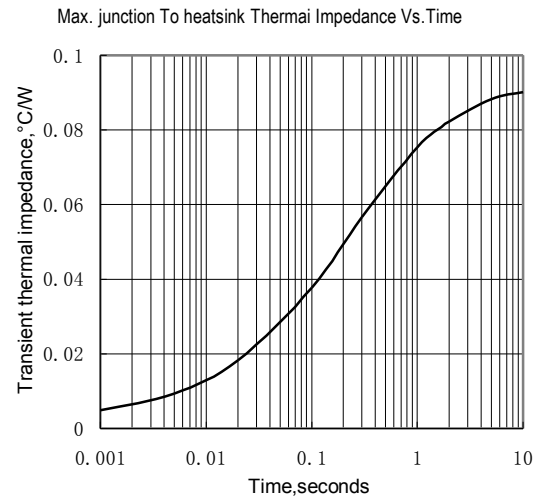


Fig.2

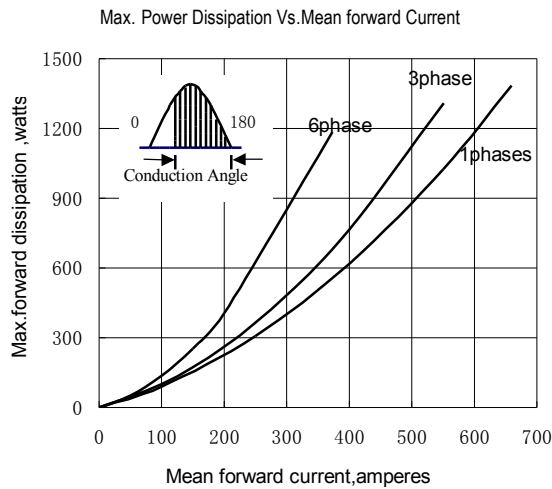


Fig.3

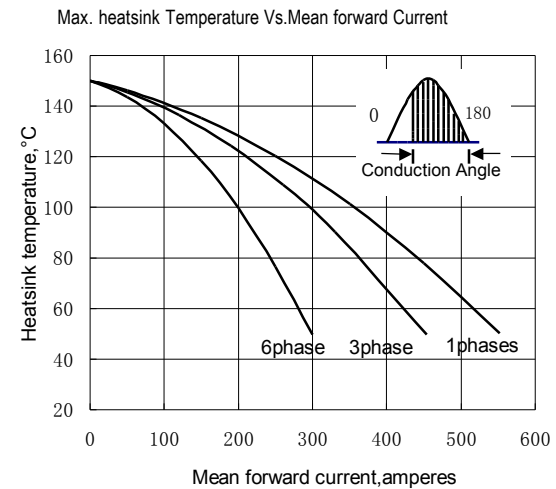


Fig.4

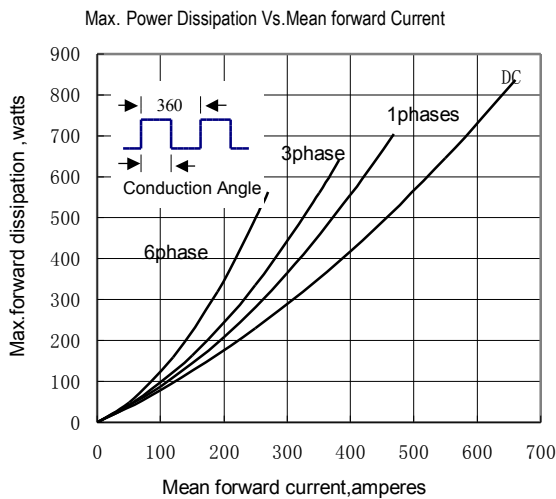


Fig.5

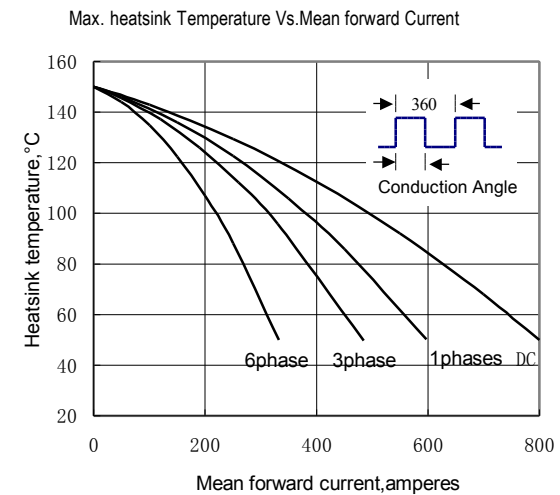


Fig.6