

#### Features

- Low forward voltage drop
- High reverse voltage
- Hermetic metal cases with ceramic insulators

#### Typical Applications

- All purpose high power rectifier diodes
- High power resistance welding equipment
- Non-controllable and half-controllable rectifiers
- Controlled rectifiers

|                          |                     |
|--------------------------|---------------------|
| <b>I<sub>F(AV)</sub></b> | <b>1980 A</b>       |
| <b>V<sub>RRM</sub></b>   | <b>2200V 2400 V</b> |
|                          | <b>2800 V 3000V</b> |
| <b>I<sub>FSM</sub></b>   | <b>27 kA</b>        |



| 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>C</sub> =85°C | 160                 |       |      | 1980  | A                                |
| I <sub>RRM</sub>     | Repetitive peak current                  | at V <sub>RRM</sub> , t <sub>p</sub> =10ms  |                      | 160                 |       |      | 80    | mA                               |
| I <sub>FSM</sub>     | Surge forward current                    | 10ms half sine wave   |                      | 160                 |       |      | 27    | kA                               |
| I <sup>2</sup> t     | I <sup>2</sup> t for fusing coordination | V <sub>R</sub> =0.6V <sub>RRM</sub>   |                      |                     |       |      | 3645  | 10 <sup>3</sup> A <sup>2</sup> s |
| V <sub>FO</sub>      | Threshold voltage                        |   |                      | 160                 |       |      | 0.82  | V                                |
| r <sub>F</sub>       | Forward slope resistance                 |   |                      |                     |       |      | 0.22  | mΩ                               |
| V <sub>FM</sub>      | Peak forward voltage                     | I <sub>FM</sub> =3000A, F=24kN  |                      | 25                  |       |      | 2.00  | V                                |
| Q <sub>rr</sub>      | Recovery charge                          | I <sub>FM</sub> =2000A, t <sub>p</sub> =4000μs, di/dt=-20A/μs,<br>V <sub>R</sub> =50V |                      | 160                 |       | 3500 |       | μC                               |
| R <sub>th(j-c)</sub> | Thermal resistance<br>Junction to case   | DC, double side cooled  |                      |                     |       |      | 0.020 | °C /W                            |
| R <sub>th(c-h)</sub> | Thermal resistance<br>case to heatsink   | Clamping force 24kN   |                      |                     |       |      | 0.005 |                                  |
| F <sub>m</sub>       | Mounting force                           |   |                      |                     | 19    |      | 26    | kN                               |
| T <sub>vj</sub>      | Junction temperature                     |   |                      |                     | -40   |      | 160   | °C                               |
| T <sub>stg</sub>     | Stored temperature                       |   |                      |                     | -40   |      | 160   | °C                               |
| W <sub>t</sub>       | Weight                                   |   |                      |                     |       | 290  |       | g                                |
| Outline              | P35                                      |   |                      |                     |       |      |       |                                  |

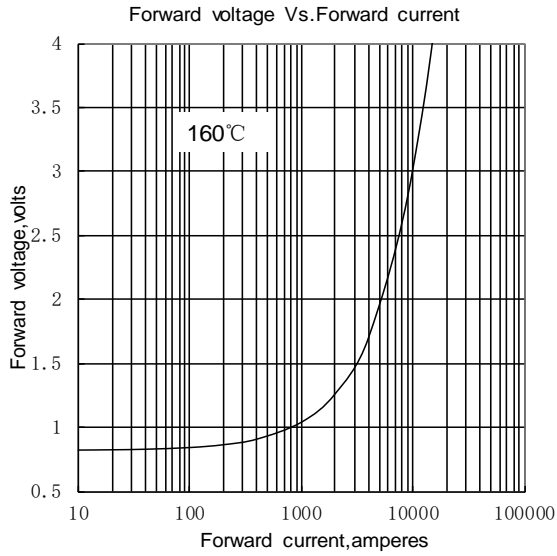


Fig.1

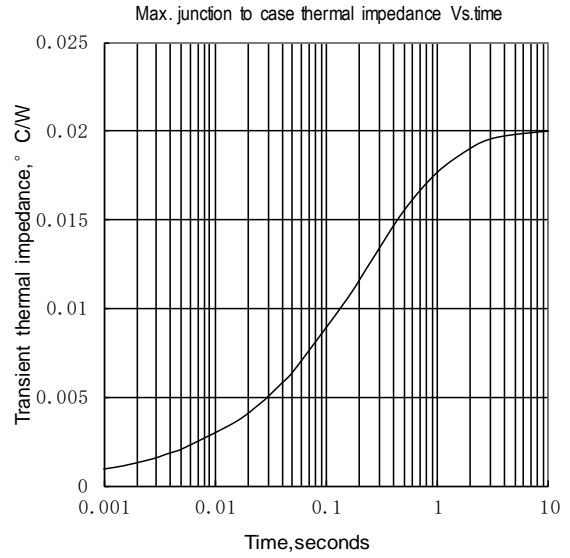


Fig.2

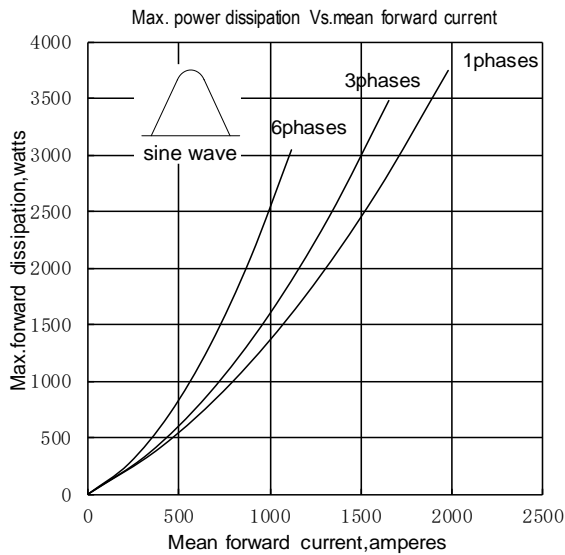


Fig.3

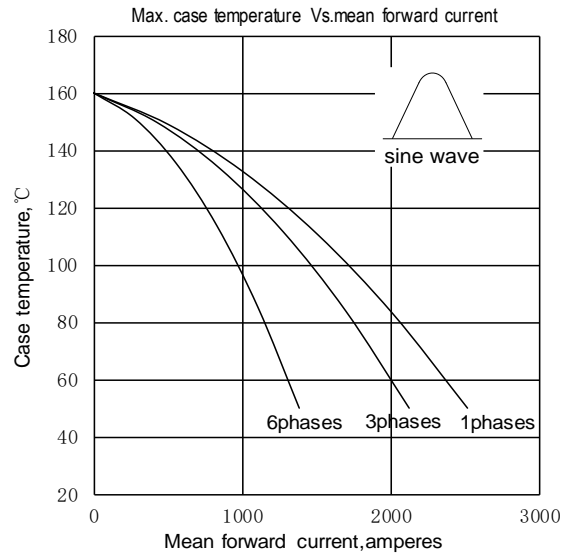


Fig.4

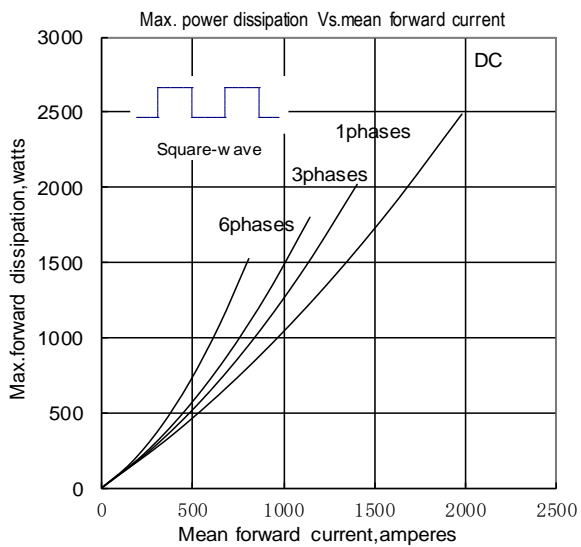


Fig.5

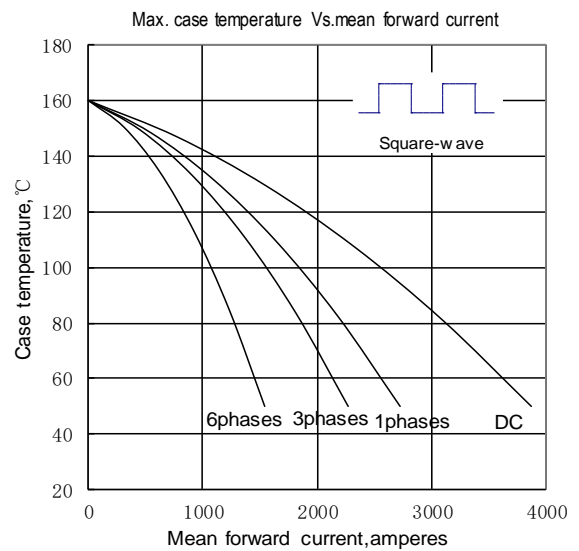


Fig.6

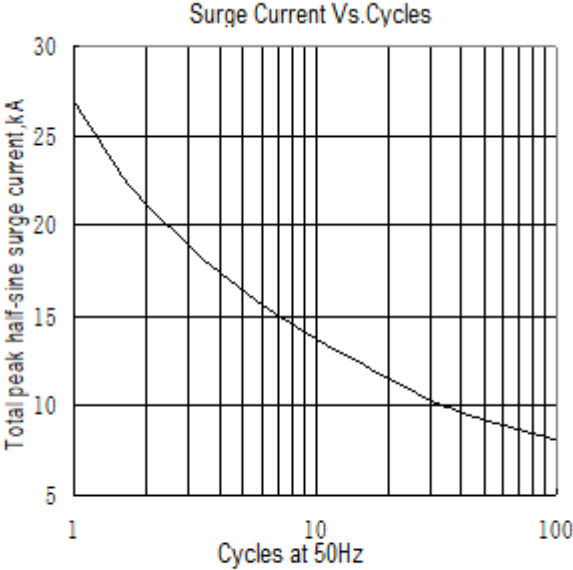
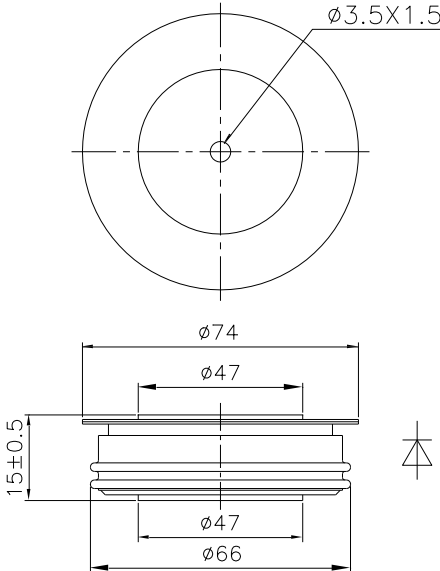


Fig.7



Nlps reserves the right to change specifications without notice.