

**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

**$I_{F(AV)}$             1480A**  
 **$V_{RRM}$              1100~2000 V**  
 **$I_{FSM}$               14    kA**  
 **$I^2t$                  980   10<sup>3</sup>A<sup>2</sup>S**



| SYMBOL        | CHARACTERISTIC                          | TEST CONDITIONS                                          |                      | T <sub>i</sub> (°C) | VALUE |      |       | UNIT  |
|---------------|-----------------------------------------|----------------------------------------------------------|----------------------|---------------------|-------|------|-------|-------|
|               |                                         |                                                          |                      |                     | Min   | Type | Max   |       |
| $I_{F(AV)}$   | Mean forward current                    | 180° half sine wave 50Hz<br>Double side cooled,          | T <sub>c</sub> =85°C | 175                 |       |      | 1480  | A     |
| $V_{RRM}$     | Repetitive peak reverse voltage         | t <sub>p</sub> =10ms                                     |                      | 175                 | 1100  |      | 2000  | V     |
| $I_{RRM}$     | Repetitive peak current                 | at $V_{RRM}$                                             |                      | 175                 |       |      | 40    | mA    |
| $I_{FSM}$     | Surge forward current                   | 10ms half sine wave                                      |                      | 175                 |       |      | 14    | kA    |
| $I^2t$        | $I^2t$ for fusing coordination          | $V_R=0.6V_{RRM}$                                         |                      |                     |       |      |       | 980   |
| $V_{FO}$      | Threshold voltage                       |                                                          |                      | 175                 |       |      | 0.85  | V     |
| $r_F$         | Forward slope resistance                |                                                          |                      |                     |       |      |       | 0.29  |
| $V_{FM}$      | Peak forward voltage                    | $I_{FM}=3770A, F=15kN$                                   |                      | 175                 |       |      | 1.94  | V     |
| $Q_{rr}$      | Recovery charge                         | $I_{FM}=2000A, t_p=1000\mu s, di/dt=-20A/\mu s, V_R=50V$ |                      | 175                 |       | 2000 |       | μC    |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to case  | DC· double side cooled                                   |                      |                     |       |      | 0.032 | °C /W |
| $R_{th(c-h)}$ | Thermal resistance<br>case to heat sink | Clamping force 15.0kN                                    |                      |                     |       |      | 0.008 |       |
| $F_m$         | Mounting force                          |                                                          |                      |                     | 10    |      | 20    | kN    |
| $T_{stg}$     | Stored temperature                      |                                                          |                      |                     | -40   |      | 175   | °C    |
| $W_t$         | Weight                                  |                                                          |                      |                     |       | 240  |       | g     |
| Outline       | P39                                     |                                                          |                      |                     |       |      |       |       |

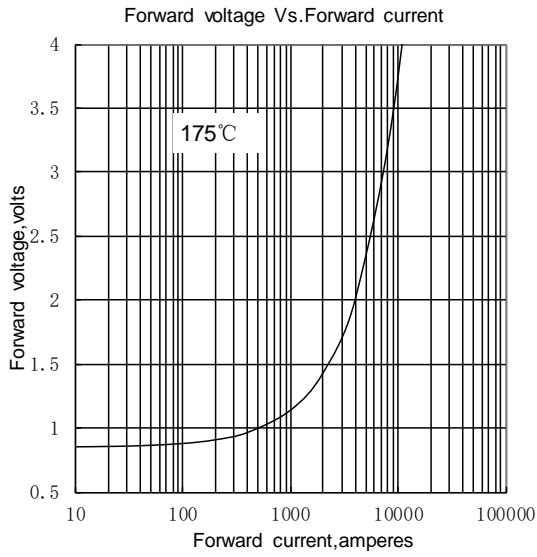


Fig.1

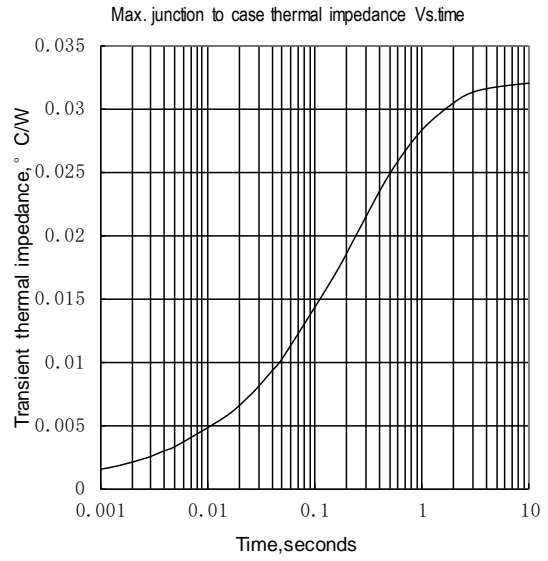


Fig.2

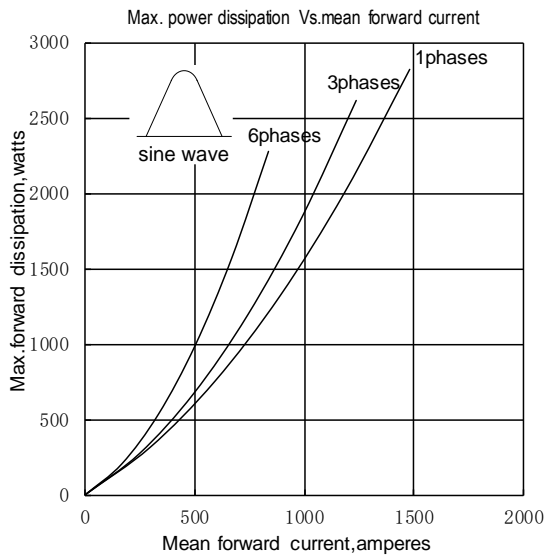


Fig.3

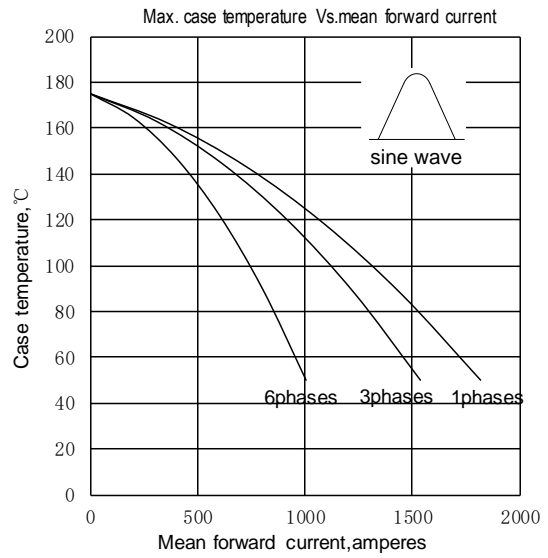


Fig.4

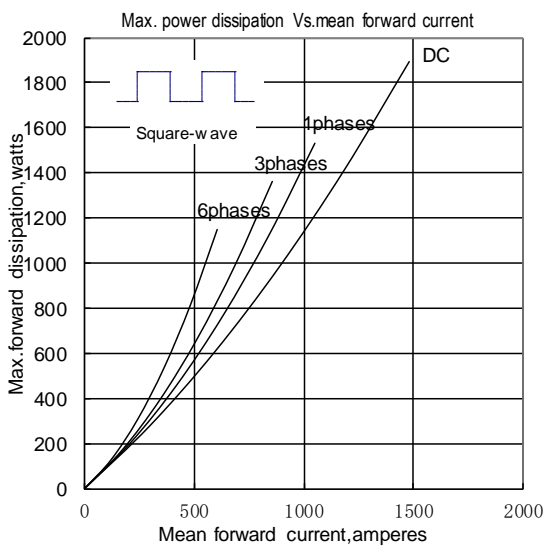


Fig.5

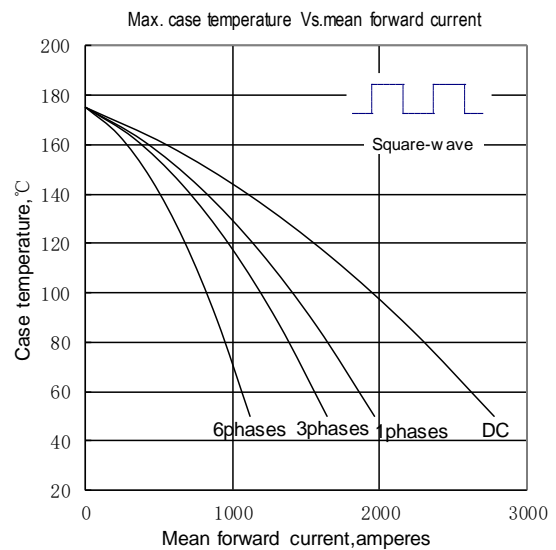


Fig.6

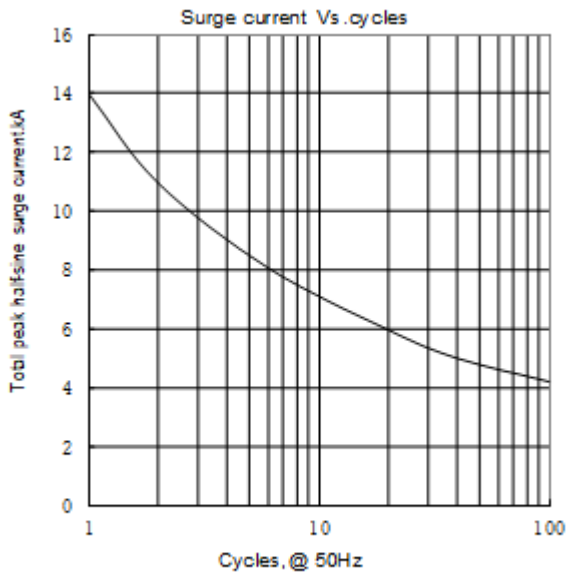
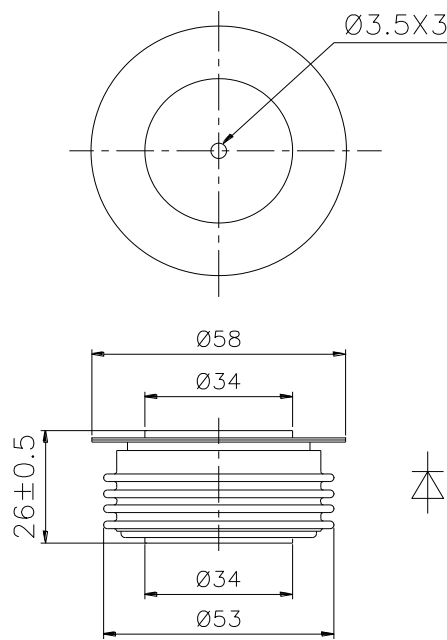


Fig.7



Nlps reserves the right to change specifications without notice.