

**Features :**

- Isolated mounting base 3000V~
- Solder joint technology with increased power cycling capability
- Space and weight saving

**Typical Applications**

- Various rectifiers
- DC supply for PWM inverter

| V <sub>RSM</sub> | V <sub>RRM</sub> | Type       |
|------------------|------------------|------------|
| 900V             | 800V             | Mx135D80S  |
| 1100V            | 1000V            | Mx135D100S |
| 1300V            | 1200V            | Mx135D120S |
| 1500V            | 1400V            | Mx135D140S |
| 1700V            | 1600V            | Mx135D160S |
| 1900V            | 1800V            | Mx135D180S |

| SYMBOL               | CHARACTERISTIC                           | TEST CONDITIONS   | T <sub>i</sub> (°C) | VALUE |      |      | UNIT                             |
|----------------------|--|---|---------------------|-------|------|------|----------------------------------|
|                      |  |   |                     | Min   | Type | Max  |                                  |
| I <sub>F(AV)</sub>   | Mean forward current                     | 180° half sine wave 50Hz<br>Single side cooled, T <sub>c</sub> =100°C | 150                 |       |      | 135  | A                                |
| I <sub>F(RMS)</sub>  | RMS forward current                      |   |                     |       |      | 212  | A                                |
| I <sub>RRM</sub>     | Repetitive peak current                  | at V <sub>RRM</sub>   | 150                 |       |      | 12   | mA                               |
| I <sub>FSM</sub>     | Surge forward current                    | 10ms half sine wave<br>V <sub>R</sub> =0.6V <sub>RRM</sub>            | 150                 |       |      | 3.8  | kA                               |
| I <sup>2</sup> t     | I <sup>2</sup> t for fusing coordination |   |                     |       |      | 72.2 | A <sup>2</sup> s*10 <sup>3</sup> |
| V <sub>FO</sub>      | Threshold voltage                        |   | 150                 |       |      | 0.85 | V                                |
| r <sub>F</sub>       | Forward slope resistance                 |   |                     |       |      | 1.35 | mΩ                               |
| V <sub>FM</sub>      | Peak forward voltage                     | I <sub>FM</sub> =410A   | 25                  |       |      | 1.45 | V                                |
| R <sub>th(j-c)</sub> | Thermal resistance<br>Junction to case   | Single side cooled per chip   |                     |       |      | 0.22 | °C/W                             |
| R <sub>th(c-h)</sub> | Thermal resistance<br>case to heatsink   | Single side cooled per chip   |                     |       |      | 0.08 | °C/W                             |
| V <sub>iso</sub>     | Isolation voltage                        | 50Hz, R.M.S, t=1min, I <sub>iso</sub> :1mA(max)                       |                     | 3000  |      |      | V                                |
| F <sub>m</sub>       | Terminal connection torque(M6)           |   |                     |       | 6    |      | N-m                              |
|                      | Mounting torque(M6)                      |   |                     |       | 6    |      | N-m                              |
| T <sub>stg</sub>     | Stored temperature                       |   |                     | -40   |      | 125  | °C                               |
| W <sub>t</sub>       | Weight                                   |   |                     |       | 150  |      | g                                |
| Outline              | M17                                      |   |                     |       |      |      |                                  |

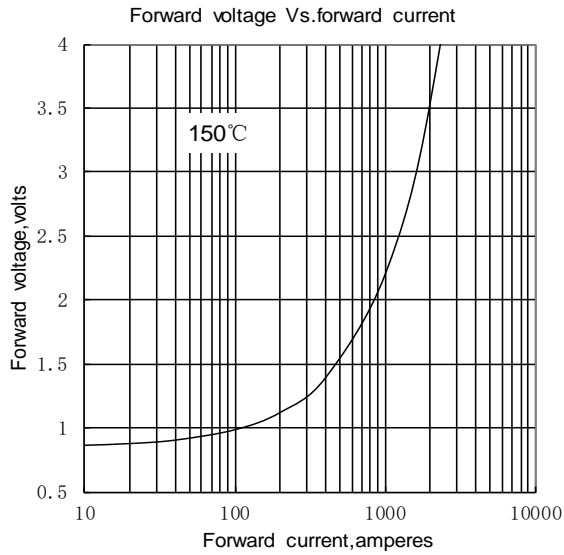


Fig1

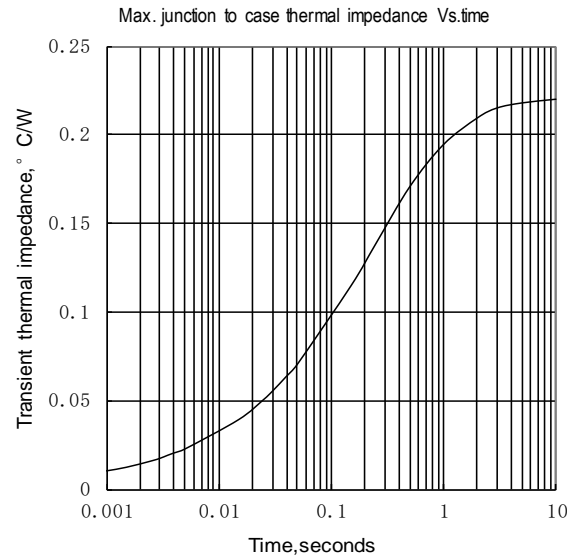


Fig2

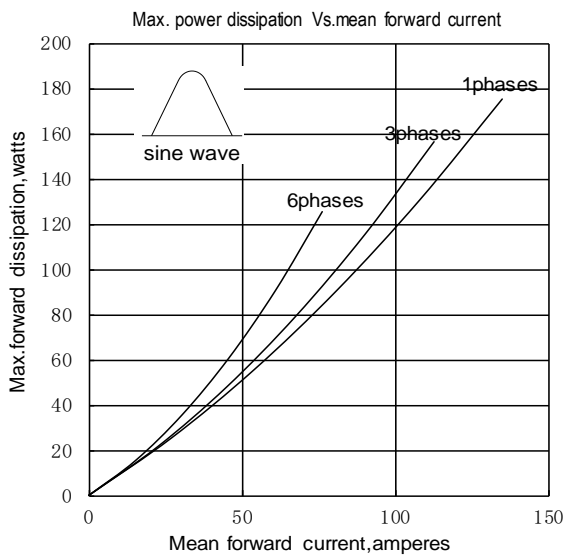


Fig3

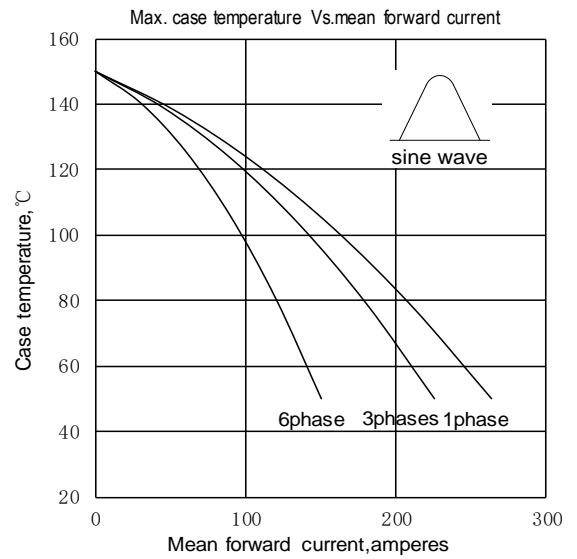


Fig4

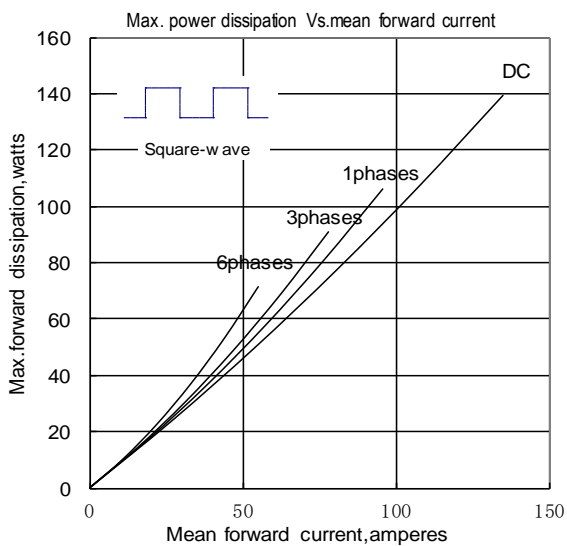


Fig5

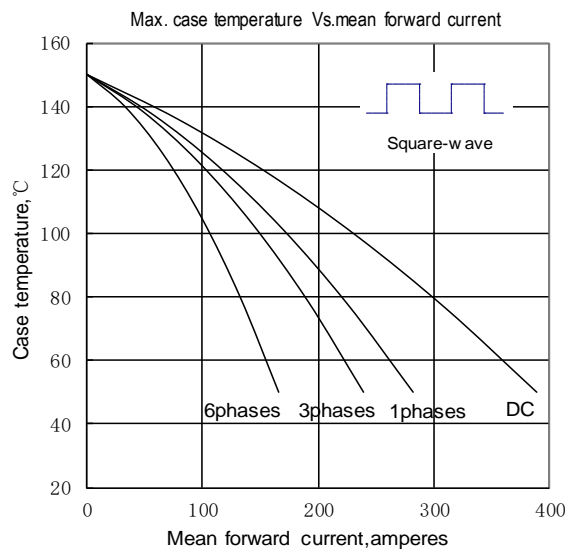


Fig6

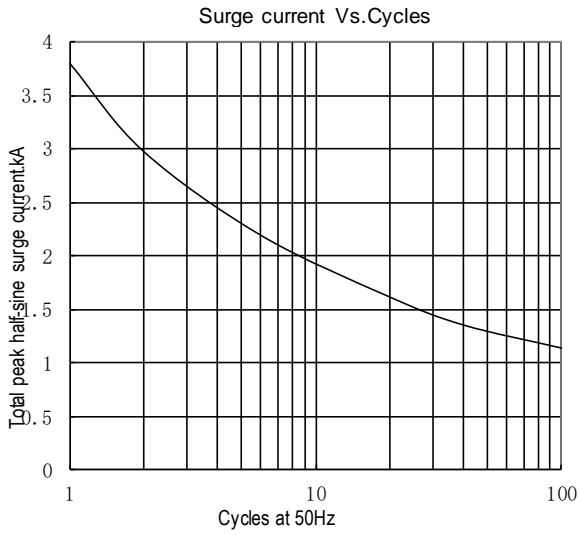


Fig.7

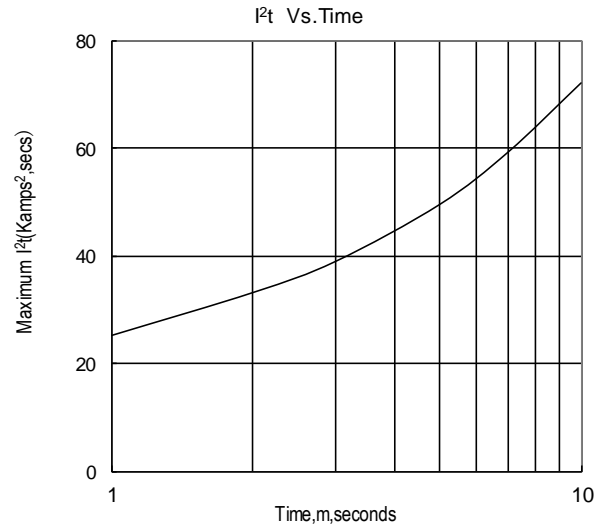
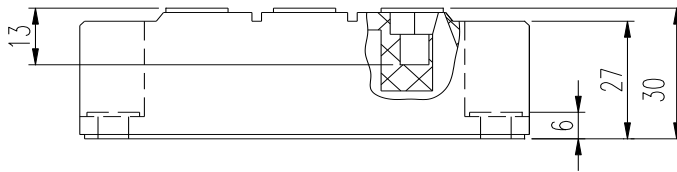


Fig.8

Outline:



MD135D\*S

MH135D\*S

