

**Features:**

- Isolated mounting base 3000V~
  - Pressure contact technology with Increased power cycling capability
  - Space and weight saving
- Typical Applications**
- Various rectifiers
  - DC supply for PWM inverter

| <b>V<sub>RRM</sub></b> | Type & Outline  |                 |                 |
|------------------------|-----------------|-----------------|-----------------|
|                        | 800V            | 1000V           | 1200V           |
| 1400V                  | MDx135-14-216F3 | MDx135-14-216F3 | MDx135-14-216F3 |
| 1600V                  | MDx135-16-216F3 | MDx135-16-216F3 | MDx135-16-216F3 |
| 1800V                  | MDx135-18-216F3 | MDx135-18-216F3 | MDx135-18-216F3 |
| 1800V                  | MD135-18-216F3G |                 |                 |

MDx stands for any type of **MDC**, **MDA**, **MDK**

| 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>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                    | V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine                | 150                 |       |      | 3.90 | kA                               |
| I <sup>2</sup> t     | I <sup>2</sup> t for fusing coordination |   |                     |       |      | 76   | 10 <sup>3</sup> A <sup>2</sup> s |
| V <sub>FO</sub>      | Threshold voltage                        |   | 150                 |       |      | 0.80 | V                                |
| r <sub>F</sub>       | Forward slope resistance                 |   |                     |       |      | 1.18 | mΩ                               |
| V <sub>FM</sub>      | Peak forward voltage                     | I <sub>FM</sub> =410A   | 25                  |       |      | 1.38 | V                                |
| R <sub>th(j-c)</sub> | Thermal resistance<br>Junction to case   | Single side cooled per chip   |                     |       |      | 0.31 | °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)           |   |                     | 4.5   |      | 6.0  | N·m                              |
|                      | Mounting torque(M6)                      |   |                     | 4.5   |      | 6.0  | N·m                              |
| T <sub>vj</sub>      | Junction temperature                     |   |                     | -40   |      | 150  | °C                               |
| T <sub>stg</sub>     | Stored temperature                       |   |                     | -40   |      | 125  | °C                               |
| W <sub>t</sub>       | Weight                                   |   |                     |       | 320  |      | g                                |
| Outline              |  |   | 216F3               |       |      |      |                                  |

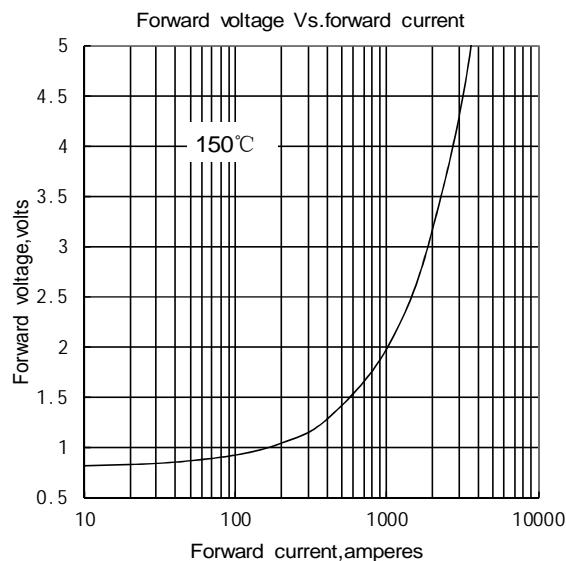


Fig.1

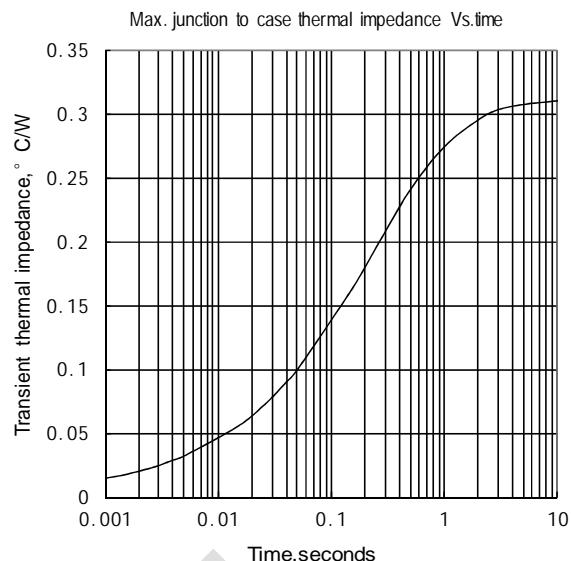


Fig.2

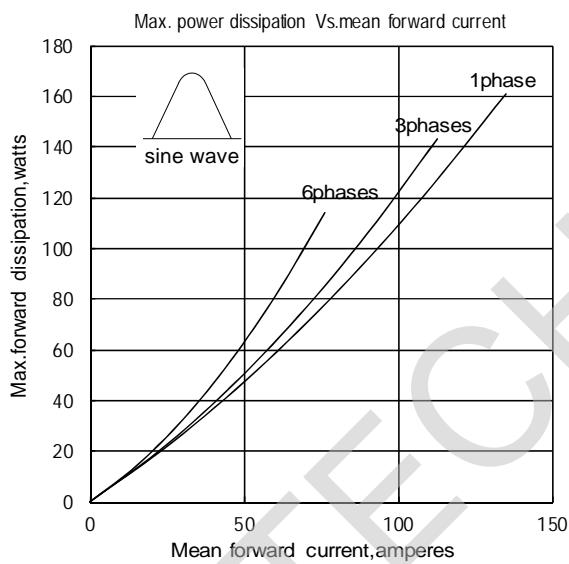


Fig.3

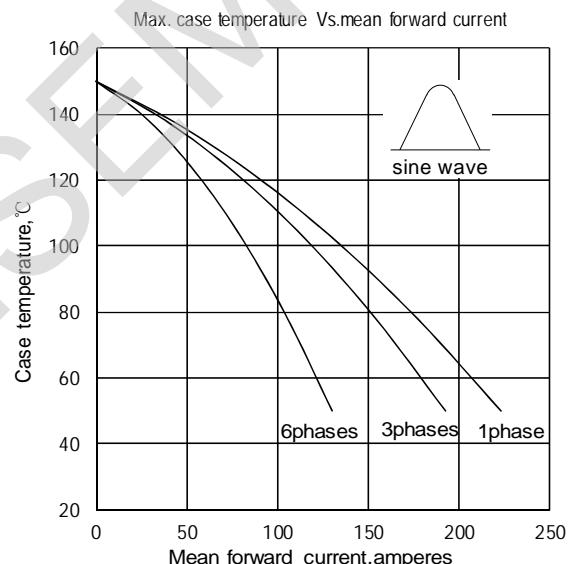


Fig.4

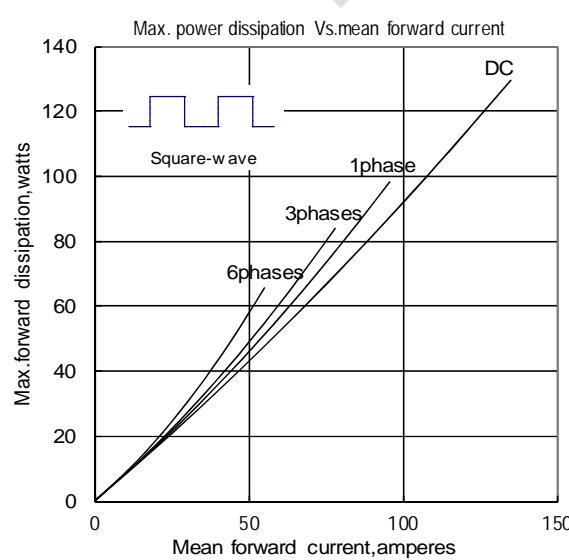


Fig.5

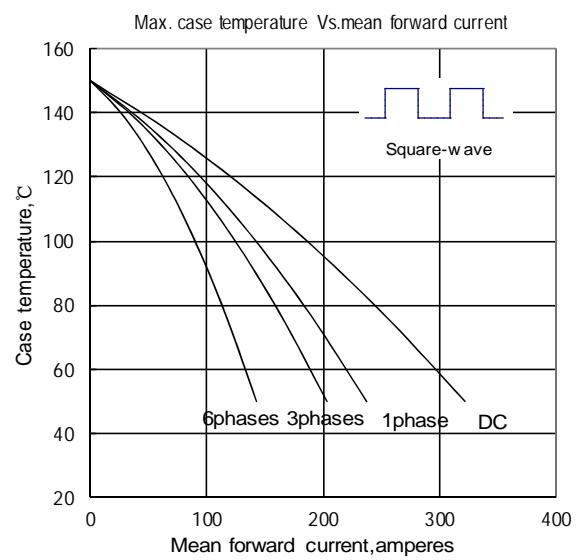


Fig.6

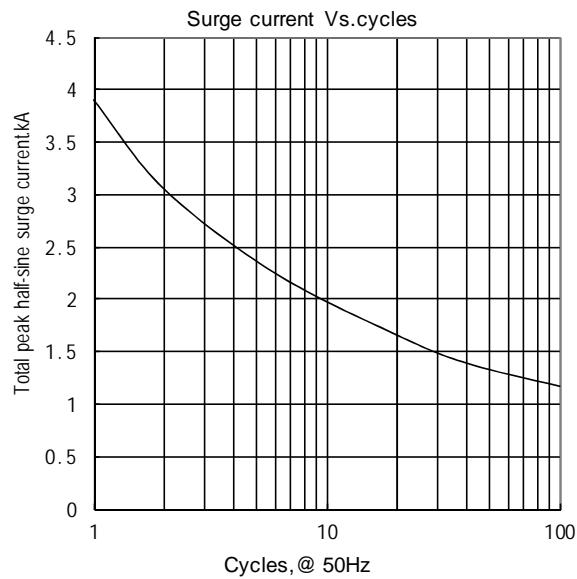


Fig.7

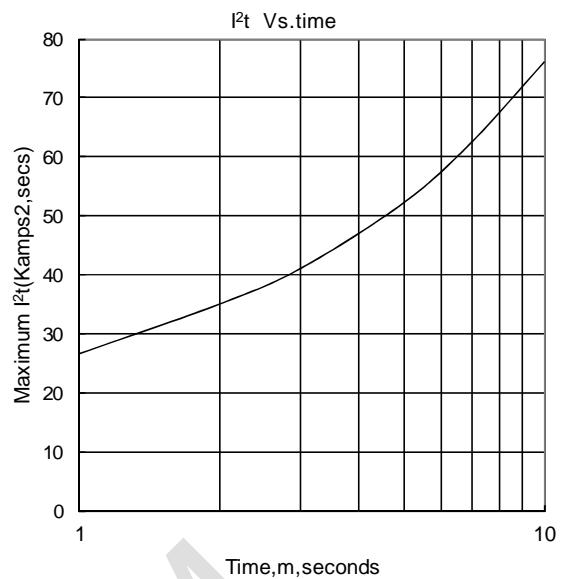


Fig.8

**Outline:**