

**Features:**

- Isolated mounting base 4000V~
- 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> | <b>Type &amp; Outline</b> |                 |            |
|------------------------|---------------------------|-----------------|------------|
|                        | <b>Min</b>                | <b>Type</b>     | <b>Max</b> |
| 2600V                  |                           | MDx500-26-410F3 |            |
| 2800V                  |                           | MDx500-28-410F3 |            |
| 3000V                  |                           | MDx500-30-410F3 |            |
| 3200V                  |                           | MDx500-32-410F3 |            |
| 3400V                  |                           | MDx500-34-410F3 |            |
| 3600V                  |                           | MDx500-36-410F3 |            |
| 3600V                  |                           | MD500-36-410F3G |            |

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

| <b>SYMBOL</b>        | <b>CHARACTERISTIC</b>                    | <b>TEST CONDITIONS</b>  | <b>T<sub>J</sub>(°C)</b> | <b>VALUE</b> |             |            | <b>UNIT</b>                      |
|----------------------|--|---|--------------------------|--------------|-------------|------------|----------------------------------|
|                      |  |   |                          | <b>Min</b>   | <b>Type</b> | <b>Max</b> |                                  |
| I <sub>F(AV)</sub>   | Mean forward current                     | 180° half sine wave 50Hz<br>Single side cooled, T <sub>C</sub> =100°C | 150                      |              |             | 500        | A                                |
| I <sub>F(RMS)</sub>  | RMS forward current                      |   |                          |              |             | 785        | A                                |
| I <sub>RRM</sub>     | Repetitive peak current                  | at V <sub>RRM</sub>   | 150                      |              |             | 50         | mA                               |
| I <sub>FSM</sub>     | Surge forward current                    | V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine                | 150                      |              |             | 15         | kA                               |
| I <sup>2</sup> t     | I <sup>2</sup> t for fusing coordination |   |                          |              |             | 1125       | 10 <sup>3</sup> A <sup>2</sup> s |
| V <sub>FO</sub>      | Threshold voltage                        |   | 150                      |              |             | 0.85       | V                                |
| r <sub>F</sub>       | Forward slope resistance                 |   |                          |              |             | 0.50       | mΩ                               |
| V <sub>FM</sub>      | Peak forward voltage                     | I <sub>FM</sub> =1500A  | 25                       |              |             | 1.85       | V                                |
| R <sub>th(j-c)</sub> | Thermal resistance<br>Junction to case   | Single side cooled per chip   |                          |              |             | 0.060      | °C/W                             |
| R <sub>th(c-h)</sub> | Thermal resistance<br>case to heatsink   | Single side cooled per chip   |                          |              |             | 0.024      | °C/W                             |
| V <sub>iso</sub>     | Isolation voltage                        | 50Hz,R.M.S,t=1min,I <sub>iso</sub> :1mA(MAX)                          |                          | 4000         |             |            | V                                |
| F <sub>m</sub>       | Terminal connection torque(M12)          |   |                          | 12           |             | 16         | N·m                              |
|                      | Mounting torque(M8)                      |   |                          | 10           |             | 12         | 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                                   |   |                          |              | 3310        |            | g                                |
| Outline              |  |   |                          | 410F3        |             |            |                                  |

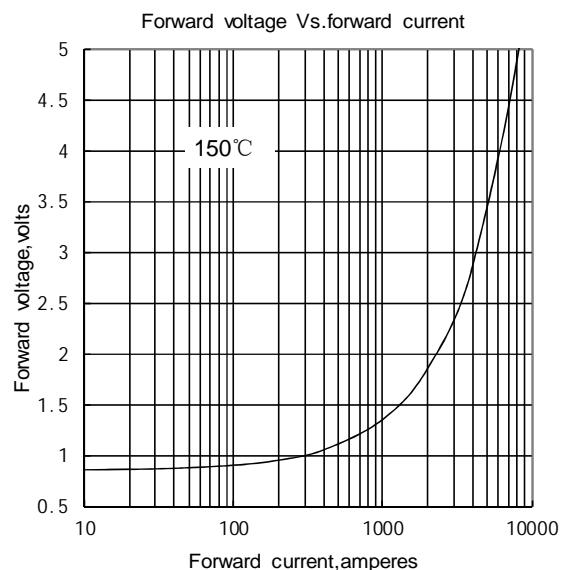


Fig.1

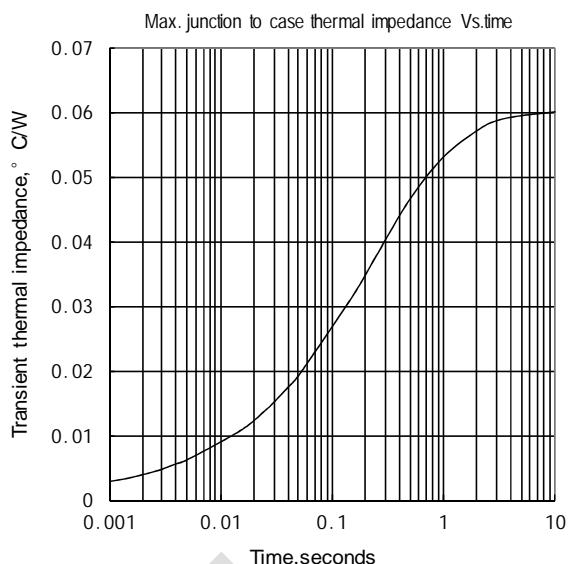


Fig.2

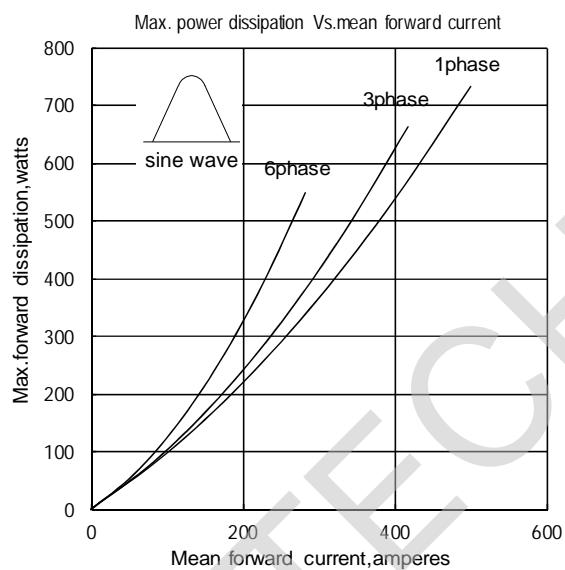


Fig.3

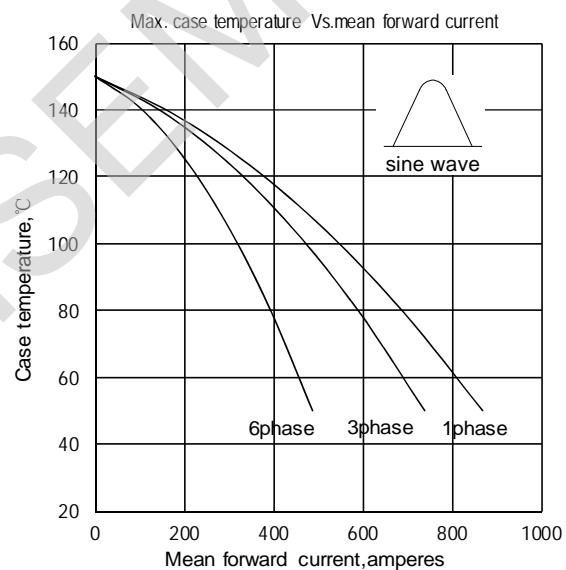


Fig.4

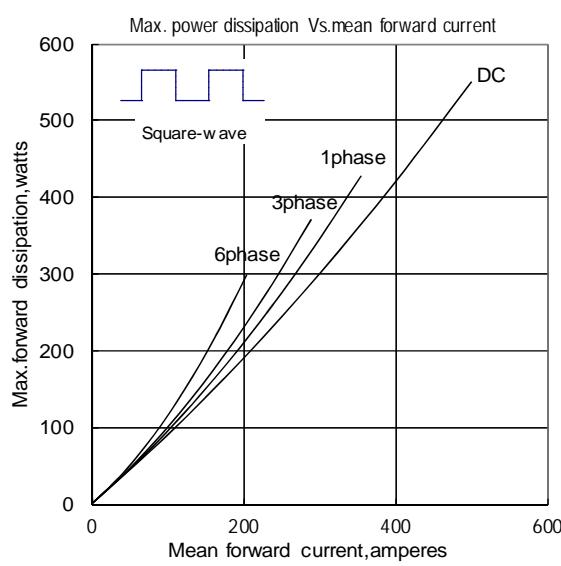


Fig.5

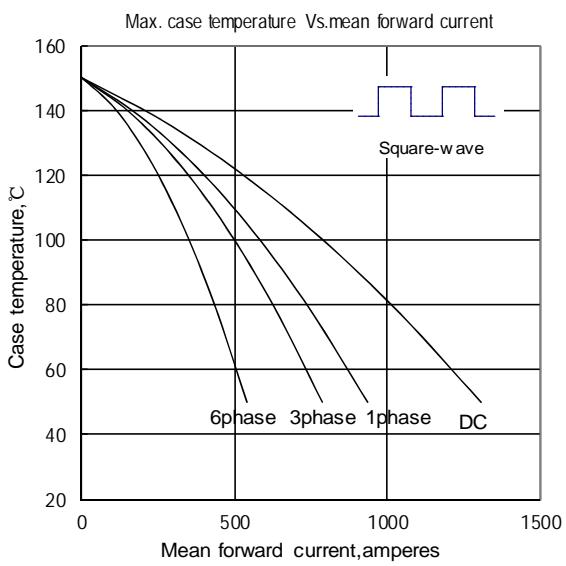


Fig.6

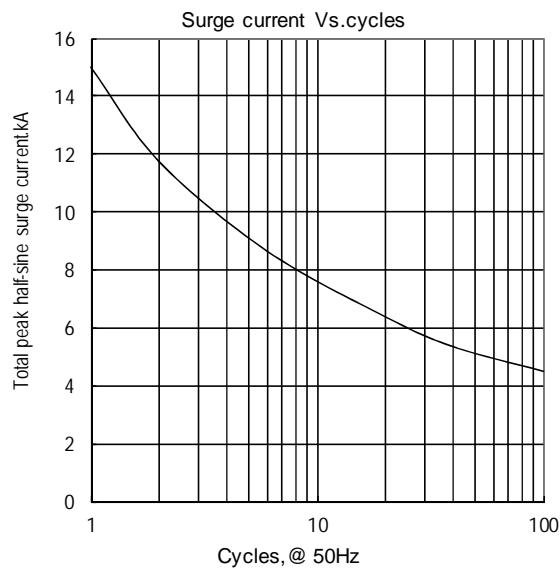


Fig.7

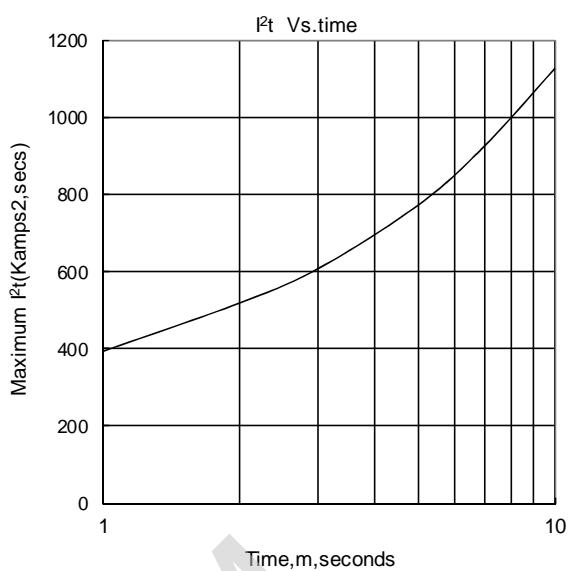
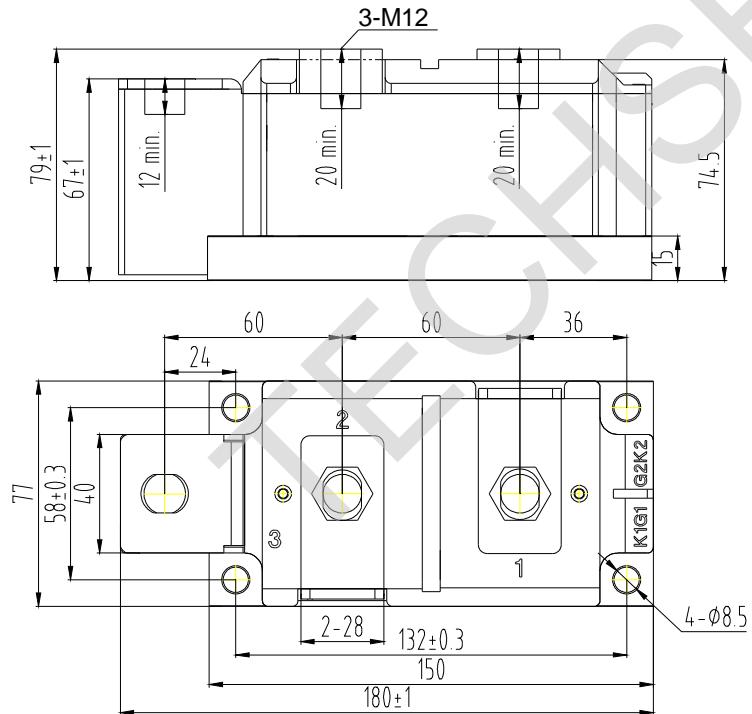


Fig.8

**Outline:**

Unmarked dimensional tolerance: ±0.5mm

