



**Features :**

- Isolated mounting base 2500V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

**Typical Applications**

- Various rectifiers
- DC supply for PWM inverter

| $V_{RSM}$ | $V_{RRM}$ | Type & Outline   |
|-----------|-----------|------------------|
| 900V      | 800V      | MDx250-08-413F3D |
| 1100V     | 1000V     | MDx250-10-413F3D |
| 1300V     | 1200V     | MDx250-12-413F3D |
| 1500V     | 1400V     | MDx250-14-413F3D |
| 1700V     | 1600V     | MDx250-16-413F3D |
| 1900V     | 1800V     | MDx250-18-413F3D |

| SYMBOL         | CHARACTERISTIC                         | TEST CONDITIONS  | $T_j(^{\circ}C)$ | VALUE |      |      | UNIT              |
|----------------|--|--|------------------|-------|------|------|-------------------|
|                |  |  |                  | Min   | Type | Max  |                   |
| $I_{F(AV)}$    | Mean forward current                   | 180° half sine wave 50Hz<br>Single side cooled, $T_c=100^{\circ}C$ | 150              |       |      | 250  | A                 |
| $I_{F(RMS)}$   | RMS forward current                    |  | 150              |       |      | 393  | A                 |
| $I_{RRM}$      | Repetitive peak current                | at $V_{RRM}$   | 150              |       |      | 20   | mA                |
| $I_{FSM}$      | Surge forward current                  | 10ms half sine wave<br>$V_R=0.6V_{RRM}$                            | 150              |       |      | 8.5  | kA                |
| $I^2t$         | $I^2t$ for fusing coordination         |  |                  |       |      | 361  | $A^2s \cdot 10^3$ |
| $V_{FO}$       | Threshold voltage                      |  | 150              |       |      | 0.75 | V                 |
| $r_F$          | Forward slope resistance               |  |                  |       |      | 0.76 | mΩ                |
| $V_{FM}$       | Peak forward voltage                   | $I_{FM}=750A$  | 25               |       |      | 1.43 | V                 |
| $R_{th(j-c)}$  | Thermal resistance<br>Junction to case | At 180° sine Single side cooled per chip                           |                  |       |      | 0.14 | $^{\circ}C/W$     |
| $R_{th(c-h)}$  | Thermal resistance<br>case to heatsink | At 180° sine Single side cooled per chip                           |                  |       |      | 0.04 | $^{\circ}C/W$     |
| $V_{iso}$      | Isolation voltage                      | 50Hz, R.M.S, $t=1min, I_{iso}=1mA(max)$                            |                  | 2500  |      |      | V                 |
| $F_m$          | Terminal connection torque(M8)         |  |                  |       | 12.0 |      | N·m               |
|                | Mounting torque(M6)                    |  |                  |       | 6.0  |      | N·m               |
| $T_{stg}$      | Stored temperature                     |  |                  | -40   |      | 125  | $^{\circ}C$       |
| $W_t$          | Weight                                 |  |                  |       | 810  |      | g                 |
| <b>Outline</b> | 413F3D                                 |  |                  |       |      |      |                   |

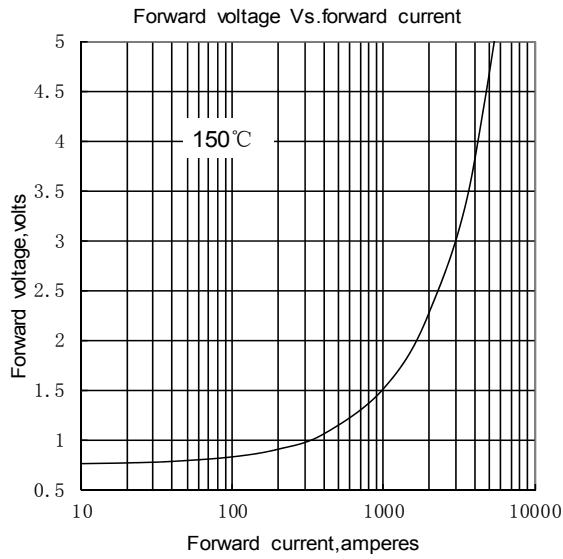


Fig.1

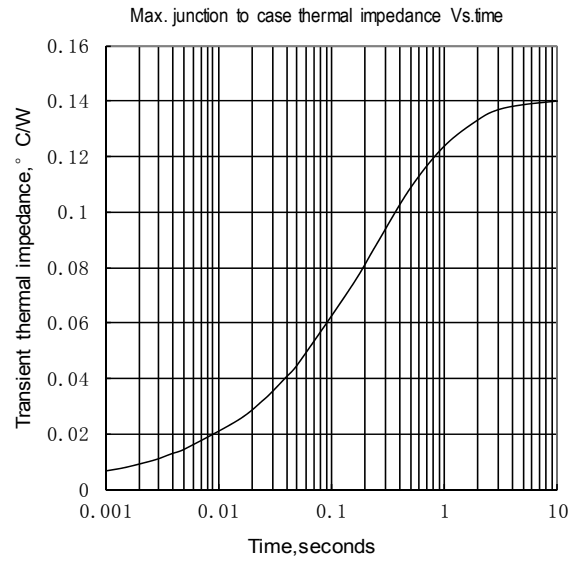


Fig.2

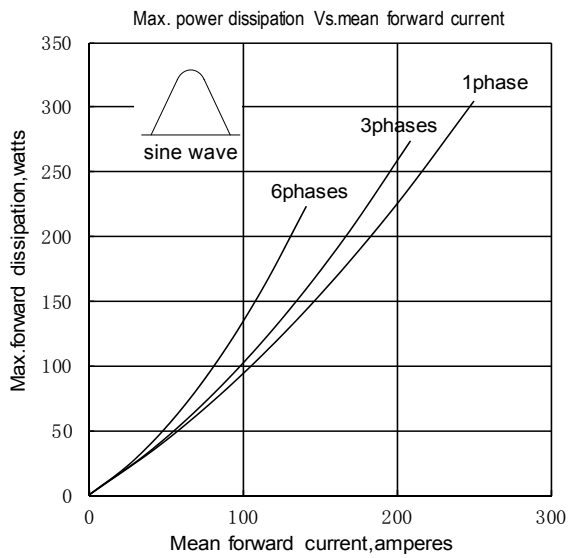


Fig.3

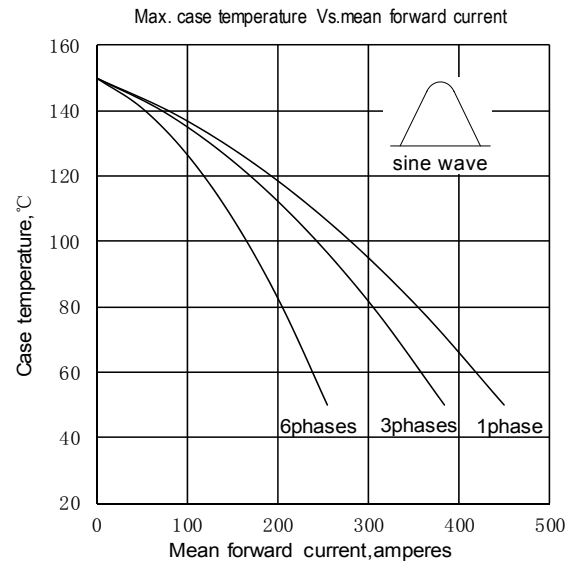


Fig.4

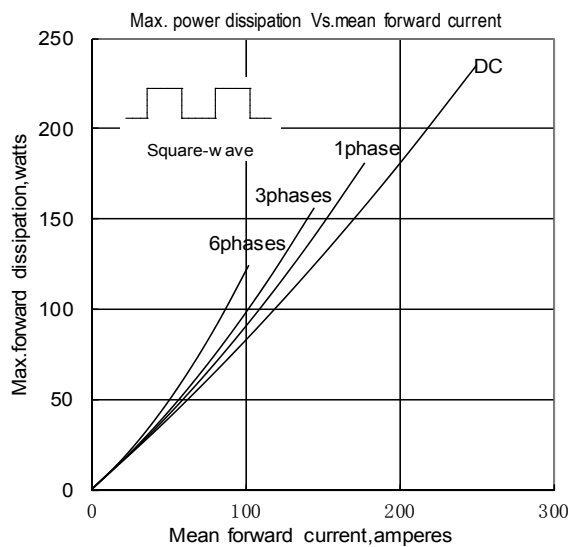


Fig.5

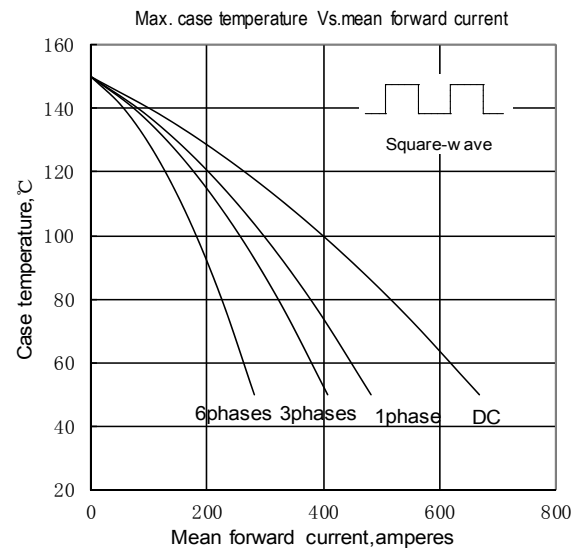


Fig.6

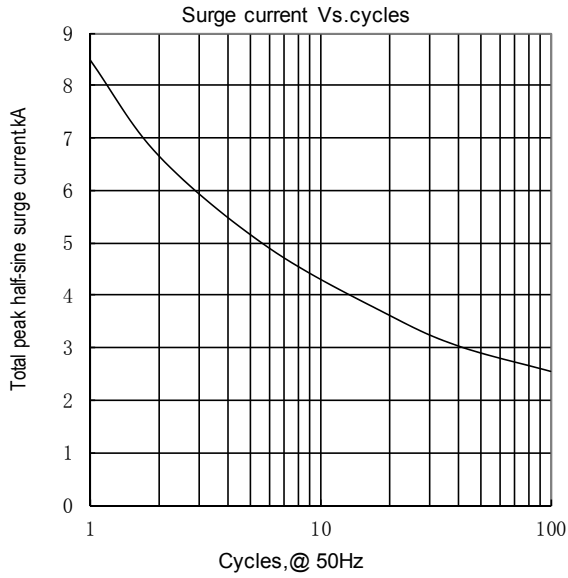


Fig.7

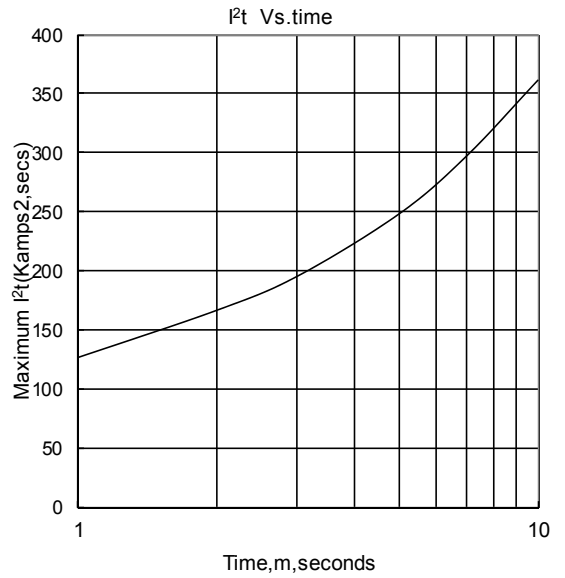
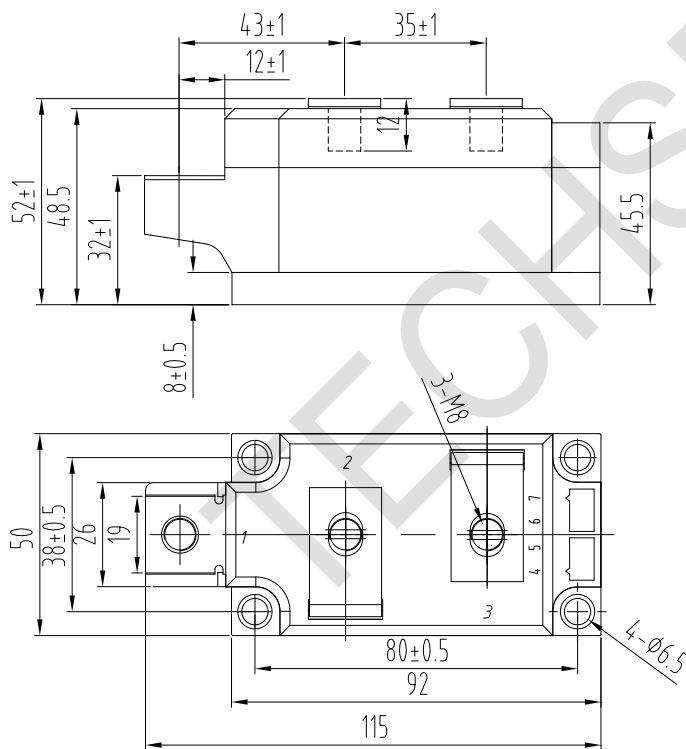
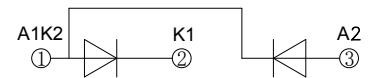


Fig.8

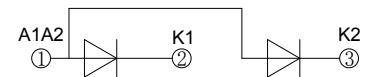
Outline:



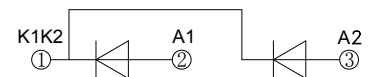
MDC



MDA



MDK



MD

