

### Features:

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

### Typical Applications

- Inverter
- Inductive heating
- Chopper

|             |                                    |
|-------------|------------------------------------|
| $I_{F(AV)}$ | 300 A                              |
| $V_{RRM}$   | 600~1600 V                         |
| $I_{FSM}$   | 6 A $\times 10^3$                  |
| $I^2t$      | 184 A <sup>2</sup> s $\times 10^3$ |



| SYMBOL        | CHARACTERISTIC                         | TEST CONDITIONS  | $T_J$ (°C) | VALUE |      |       | UNIT                             |
|---------------|--|--|------------|-------|------|-------|----------------------------------|
|               |  |  |            | Min   | Type | Max   |                                  |
| $I_{F(AV)}$   | Mean forward current                   | 180° half sine wave 50Hz<br>Single side cooled, $T_C=60^\circ C$ | 140        |       |      | 300   | A                                |
| $I_F$ (RMS)   | RMS forward current                    |  | 140        |       |      | 471   | A                                |
| $V_{RRM}$     | Repetitive peak reverse voltage        | $V_{RRM}$ tp=10ms<br>$V_{RSM}=V_{RRM}+100V$                      | 140        | 600   |      | 1600  | V                                |
| $I_{RRM}$     | Repetitive peak current                | at $V_{RRM}$   | 140        |       |      | 40    | mA                               |
| $I_{FSM}$     | Surge forward current                  | 10ms half sine wave  | 140        |       |      | 6.00  | KA                               |
| $I^2t$        | $I^2T$ for fusing coordination         | $V_R=0.6V_{RRM}$   |            |       |      | 184   | A <sup>2</sup> s*10 <sup>3</sup> |
| $V_{FO}$      | Threshold voltage                      |  | 140        |       |      | 0.85  | V                                |
| $r_F$         | Forward slop resistance                |  |            |       |      | 1.06  | mΩ                               |
| $V_{FM}$      | Peak forward voltage                   | $I_{FM}=900A$  | 25         |       |      | 2.05  | V                                |
| $t_{rr}$      | Reverse recovery time                  | $I_{FM}=300A, tp=1000\mu s$ ,<br>-di/dt=20A/μs,<br>$V_R=50V$     | 140        |       | 3.0  |       | μs                               |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to case | Single side cooled   |            |       |      | 0.160 | °C /W                            |
| $R_{th(c-h)}$ | Thermal resistance<br>case to heatsink | Single side cooled   |            |       |      | 0.04  | °C /W                            |
| $F_m$         | Terminal connection torque(M8)         |  |            |       | 12   |       | N·m                              |
|               | Mounting torque(M6)                    |  |            |       | 6    |       | N·m                              |
| $T_{stg}$     | Stored temperature                     |  |            | -40   |      | 125   | °C                               |
| $W_t$         | Weight                                 |  |            |       | 1300 |       | g                                |
| Outline       |  |  |            | 405F3 |      |       |                                  |

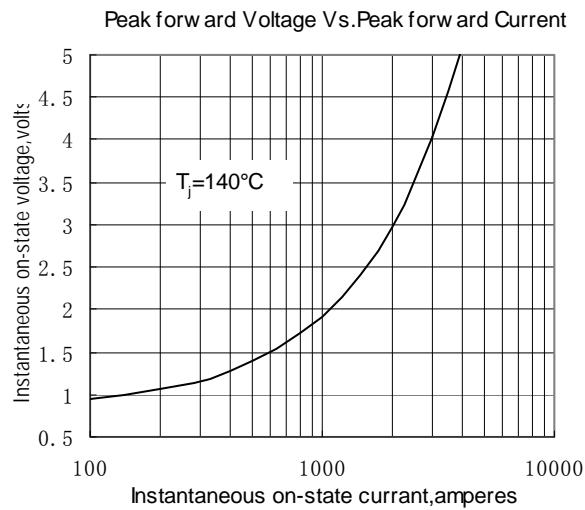


Fig.1

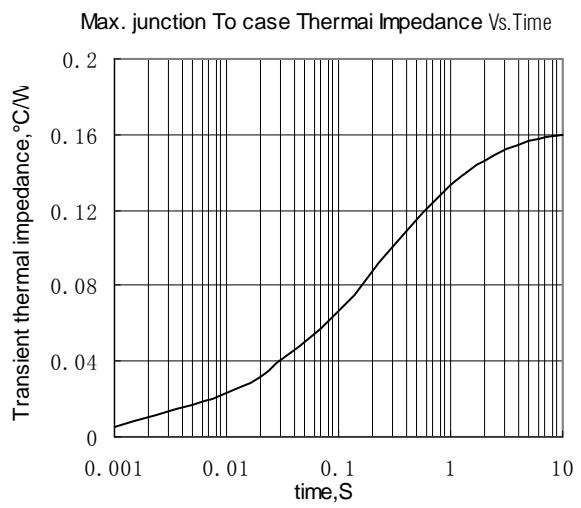


Fig.2

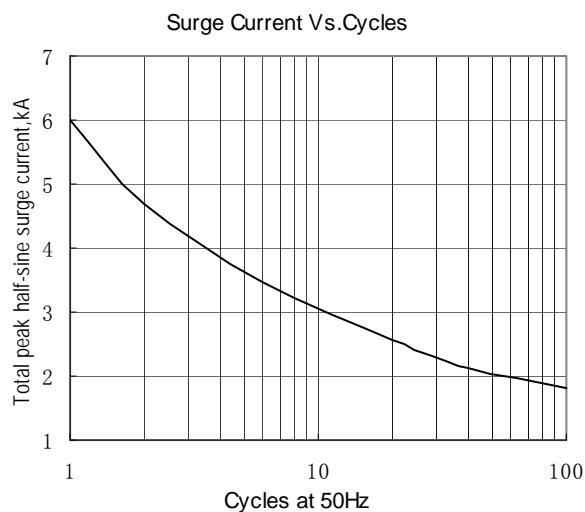


Fig.3

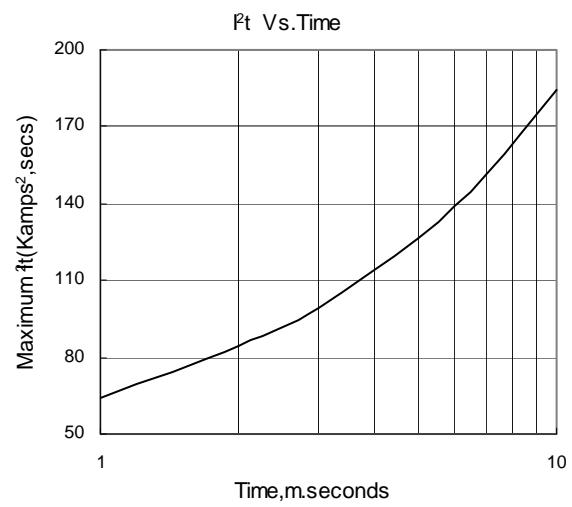
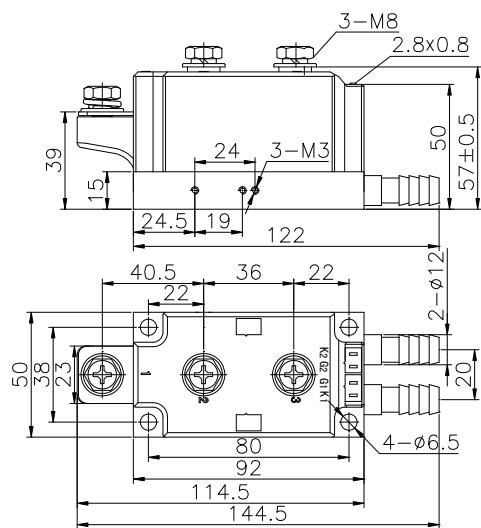


Fig.4

## Outline:



405F3

