

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_{RSM} | V_{RRM} | 品名 |
|-----------|-----------|-----------|
| 900V | 800V | MD70D80S |
| 1100V | 1000V | MD70D100S |
| 1300V | 1200V | MD70D120S |
| 1500V | 1400V | MD70D140S |
| 1700V | 1600V | MD70D160S |
| 1900V | 1800V | MD70D180S |

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | $T_J(^{\circ}\text{C})$ | VALUE | | | UNIT |
|---------------|--|---|-------------------------|-------|------|------|----------------------------------|
| | | | | Min. | Typ. | Max. | |
| $I_{F(AV)}$ | Mean forward current | 180° half sine wave 50Hz Single side cooled, $T_c=100^{\circ}\text{C}$ | 150 | | | 70 | A |
| $I_{F(RMS)}$ | RMS forward current | | 150 | | | 110 | A |
| I_{RRM} | Repetitive peak current | at V_{RRM} | 150 | | | 8 | mA |
| I_{FSM} | Surge forward current | 10ms half sine wave $V_R=0.6V_{RRM}$ | 150 | | | 1.9 | kA |
| I^2t | I^2t for fusing coordination | | | | | 18.1 | $\text{A}^2\text{s} \times 10^3$ |
| V_{FO} | Threshold voltage | | 150 | | | 0.80 | V |
| r_F | Forward slope resistance | | | | | 2.50 | $\text{m}\Omega$ |
| V_{FM} | Peak forward voltage | $I_{FM}=210\text{A}$ | 25 | | | 1.45 | V |
| $R_{th(j-c)}$ | Thermal resistance Junction to case | D.C. Single side cooled per chip | | | | 0.57 | $^{\circ}\text{C}/\text{W}$ |
| $R_{th(c-h)}$ | Thermal resistance case to heatsink | D.C. Single side cooled per chip | | | | 0.20 | $^{\circ}\text{C}/\text{W}$ |
| V_{iso} | Isolation voltage | 50Hz, R.M.S, $t=1\text{min}$, $I_{iso}:1\text{mA(max)}$ | | 3000 | | | V |
| F_m | Terminal connection torque(M5) | | | 2.4 | | 3.0 | $\text{N}\cdot\text{m}$ |
| | Mounting torque(M6) | | | 3.5 | | 5.0 | $\text{N}\cdot\text{m}$ |
| T_{stg} | Stored temperature | | | -40 | | 125 | $^{\circ}\text{C}$ |
| W_t | Weight | | | | 95 | | g |
| Outline | M16 | | | | | | |

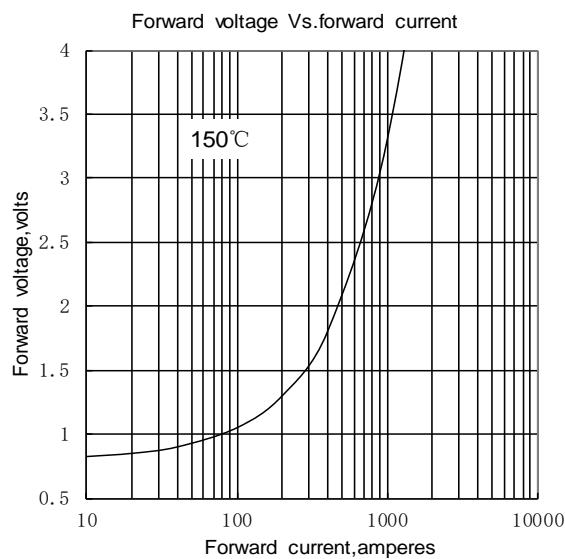


Fig1

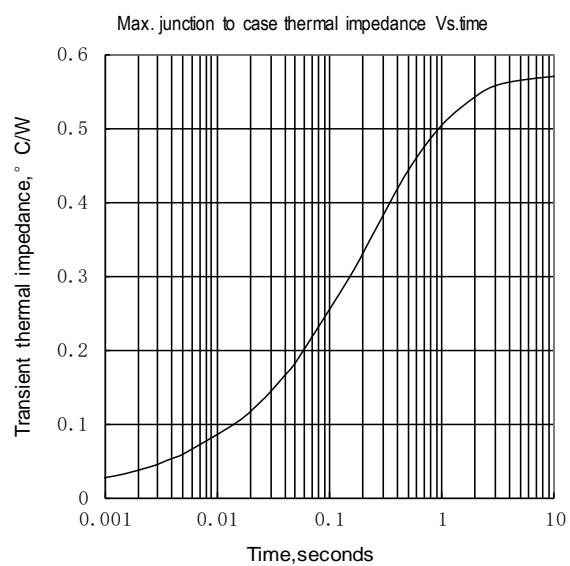


Fig2

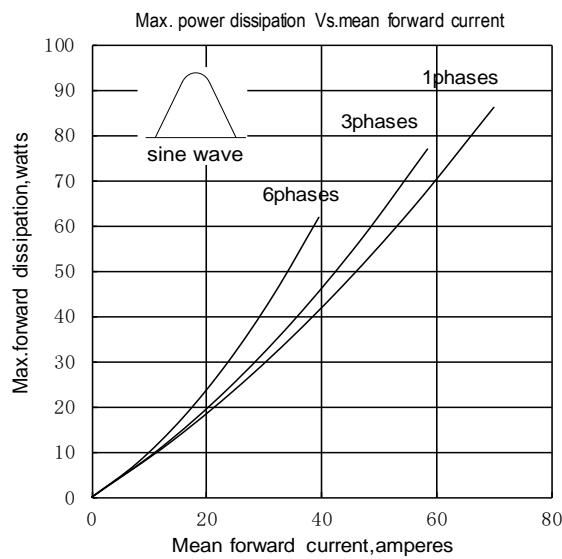


Fig3

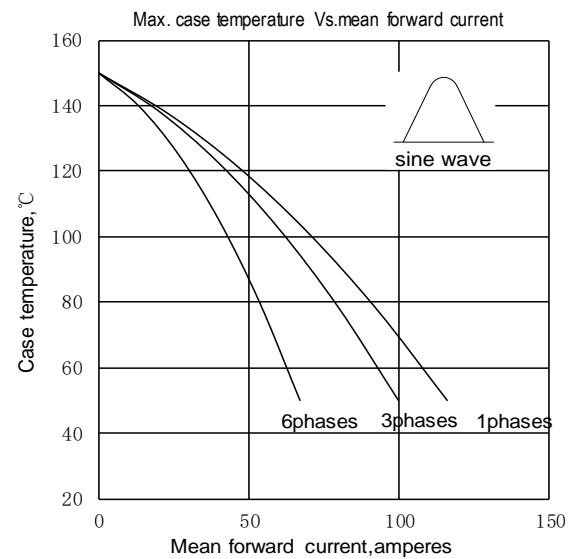


Fig4

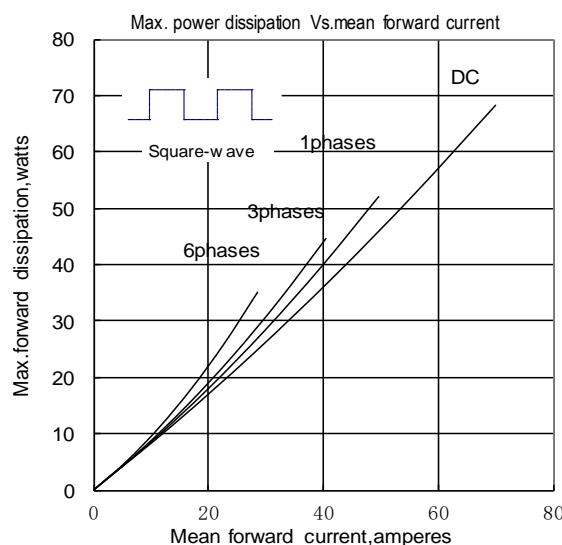


Fig5

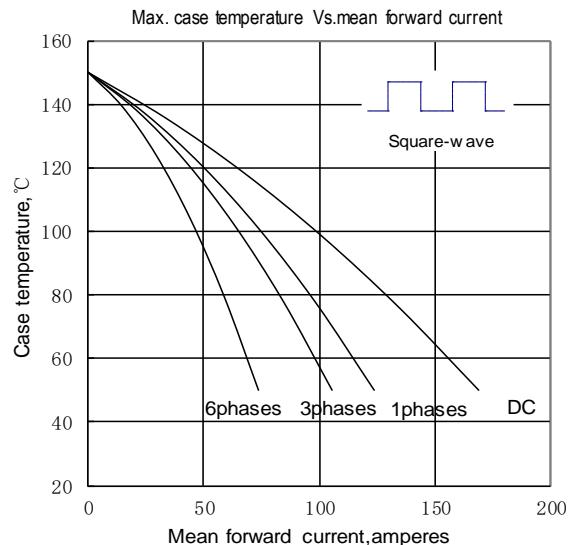


Fig6

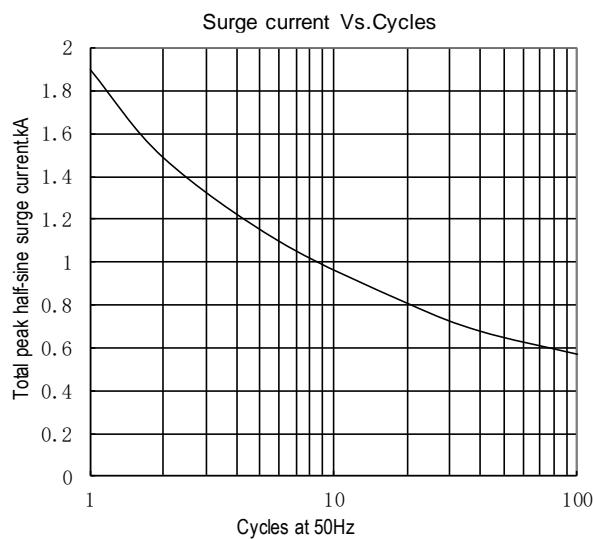
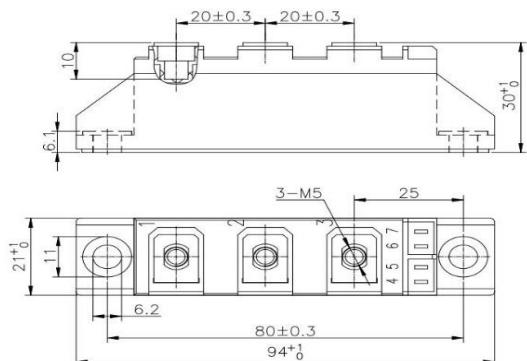
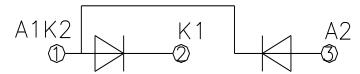


Fig.7



MD70D**S

Unmarked dimensional tolerance : $\pm 0.5\text{mm}$

NIps reserves the right to change specifications without notice.