



Features:

- n Isolated mounting base 3000V~
- n Pressure contact technology with Increased power cycling capability
- n Space and weight saving

Typical Applications

- n Various rectifiers
- n DC supply for PWM inverter

| V _{RRM} | Type & Outline |
|------------------|----------------|
| 800V | MDx40-08-215F3 |
| 1000V | MDx40-10-215F3 |
| 1200V | MDx40-12-215F3 |
| 1400V | MDx40-14-215F3 |
| 1600V | MDx40-16-215F3 |
| 1800V | MDx40-18-215F3 |
| 1800V | MD40-18-215F3G |

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

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | T _J (°C) | VALUE | | | UNIT |
|----------------------|--|---|---------------------|-------|------|------|----------------------------------|
| | | | | Min | Type | Max | |
| I _{F(AV)} | Mean forward current | 180° half sine wave 50Hz Single side cooled, T _C =100°C | 150 | | | 40 | A |
| I _{F(RMS)} | RMS forward current | | | | | 63 | A |
| I _{RRM} | Repetitive peak current | at V _{RRM} | 150 | | | 8 | mA |
| I _{FSM} | Surge forward current | V _R =60%V _{RRM} , t=10ms half sine | 150 | | | 1.0 | kA |
| I ² t | I ² t for fusing coordination | | | | | 5.0 | 10 ³ A ² s |
| V _{FO} | Threshold voltage | | 150 | | | 0.80 | V |
| r _F | Forward slope resistance | | | | | 5.57 | mΩ |
| V _{FM} | Peak forward voltage | I _{FM} =120A | 25 | | | 1.47 | V |
| R _{th(j-c)} | Thermal resistance Junction to case | Single side cooled per chip | | | | 0.90 | °C/W |
| R _{th(c-h)} | Thermal resistance case to heatsink | Single side cooled per chip | | | | 0.20 | °C/W |
| V _{iso} | Isolation voltage | 50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX) | | 3000 | | | V |
| F _m | Terminal connection torque(M5) | | | 2.5 | | 4.0 | N·m |
| | Mounting torque(M6) | | | 4.5 | | 6.0 | N·m |
| T _{vj} | Junction temperature | | | -40 | | 150 | °C |
| T _{stg} | Stored temperature | | | -40 | | 125 | °C |
| W _t | Weight | | | | 120 | | g |
| Outline | 215F3 | | | | | | |

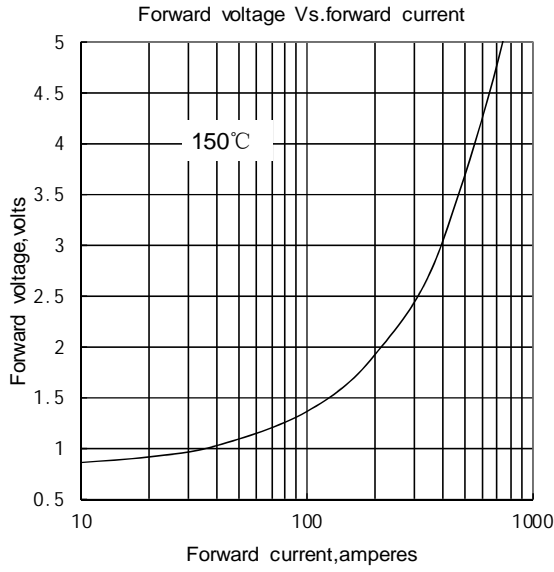


Fig.1

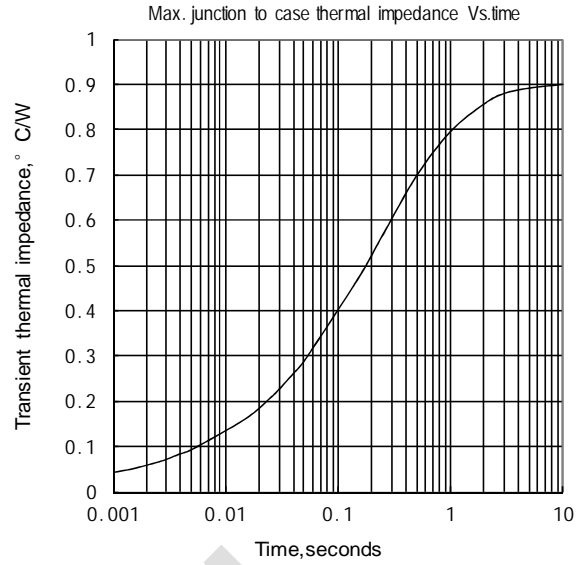


Fig.2

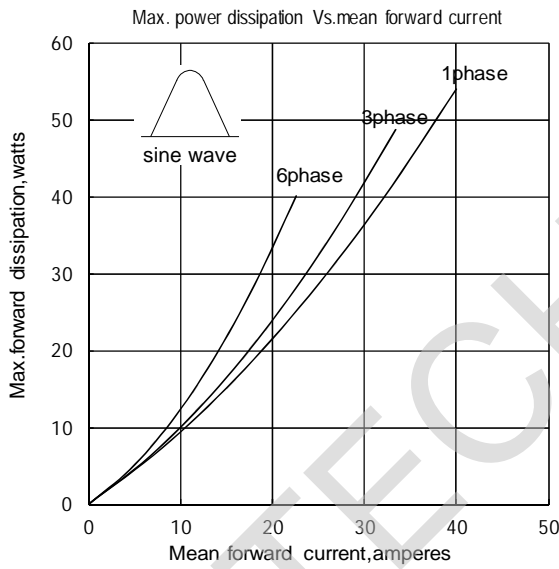


Fig.3

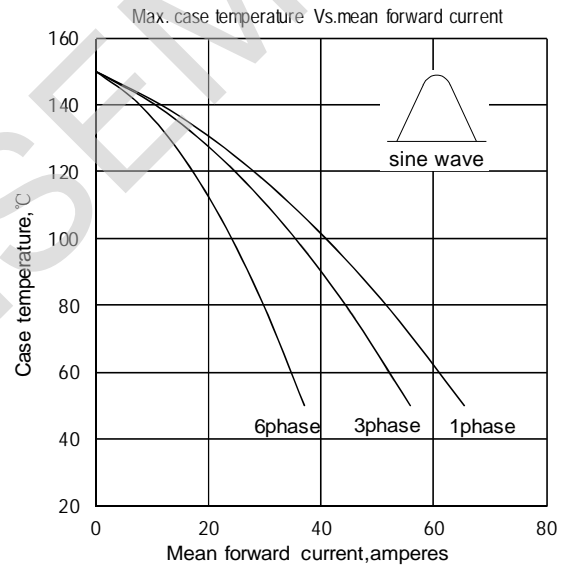


Fig.4

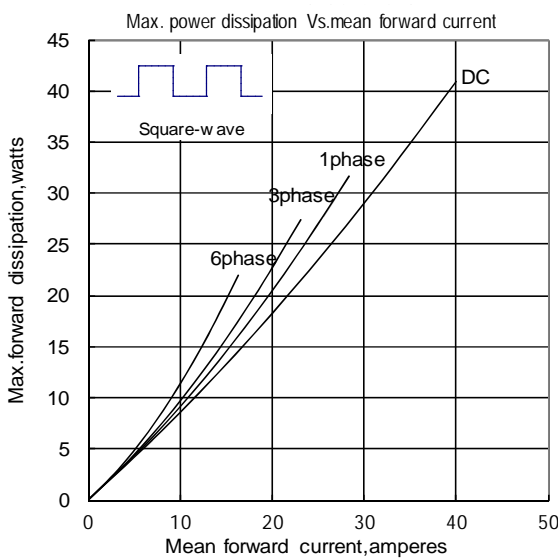


Fig.5

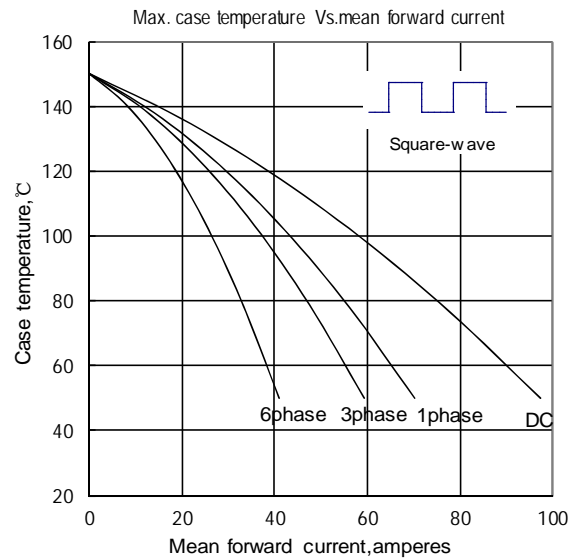


Fig.6

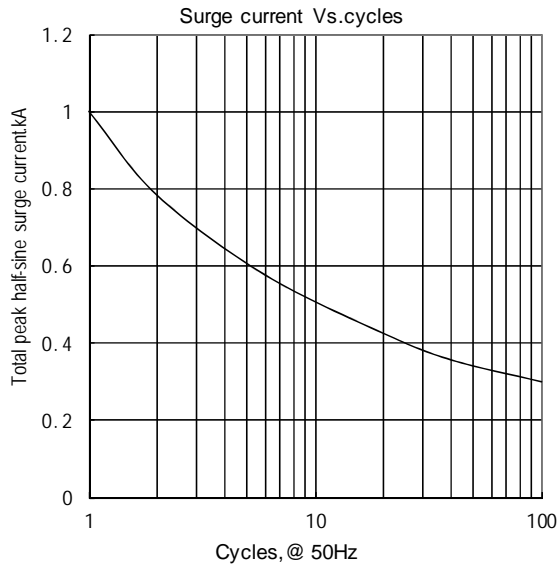


Fig.7

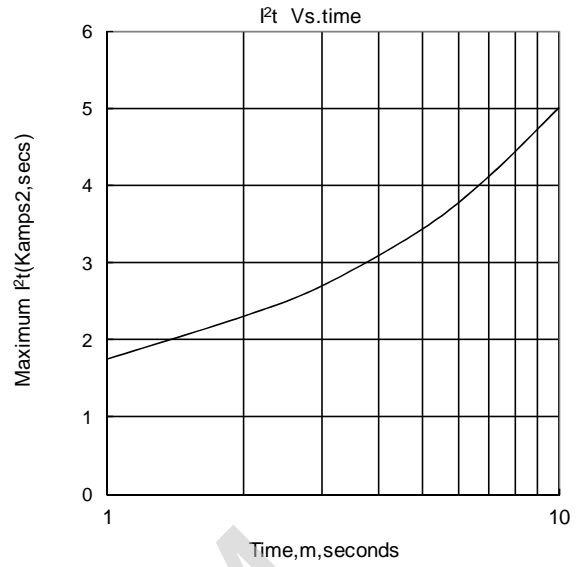
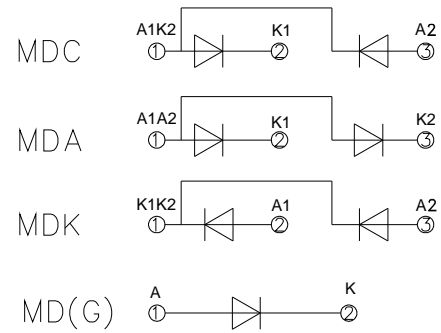
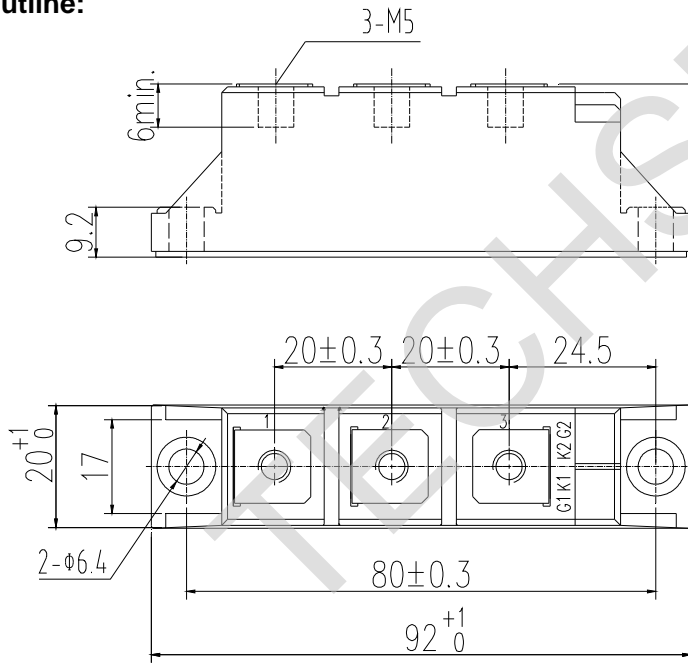


Fig.8

Outline:



Unmarked dimensional tolerance: ±0.5mm