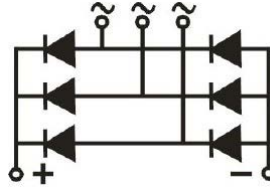


### Feature

- International standard package
- Low forward voltage drop
- Isolation voltage 2500V~

### Application

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders



### Maximum value

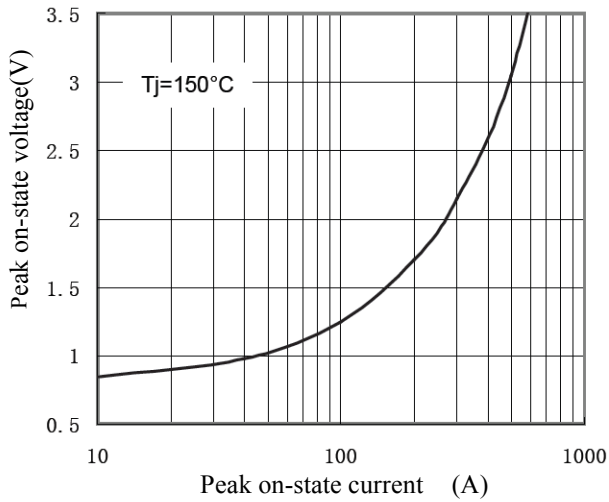
| Symbol    | Parameter                           | Rating    |           | Unit |
|-----------|-------------------------------------|-----------|-----------|------|
|           |                                     | MDS100-12 | MDS100-16 |      |
| $V_{RRM}$ | Peak reverse repetitive voltage     | 1200      | 1600      | V    |
| $V_{RSM}$ | Peak reverse non-repetitive voltage | 1300      | 1700      | V    |

| Symbol    | Parameter                         | Test condition   | Rating      | Unit             |
|-----------|-----------------------------------|--|-------------|------------------|
| $I_o$     | Output DC current                 | Three-phase whole wave rectifying circuit $T_c:100^{\circ}C$ | 100         | A                |
| $I_{FSM}$ | Forward surge current             | $t=10ms, 50HZ, sin, T_{jm}$                                  | 1200        | A                |
| $I^2t$    | $I^2t$ value                      | $V_R = 0.6V_{RRM}, T_{jm}$                                   | 7200        | A <sup>2</sup> S |
| $V_{ISO}$ | Isolation voltage                 | AC one min   | 2500        | V                |
| $T_j$     | Operating junction temperature    |  | -40 to +150 | $^{\circ}C$      |
| $T_{jm}$  | Rated junction temperature        |  | 150         | $^{\circ}C$      |
| $T_{stg}$ | Storage temperature               |  | -40 to +125 | $^{\circ}C$      |
| Md        | Mounting torque (copper plate) M6 |  | 4           | N·m              |
|           | Mounting torque (terminal) M6     |  | 4           | N·m              |
| $W_t$     | weight                            |  | 195         | g                |

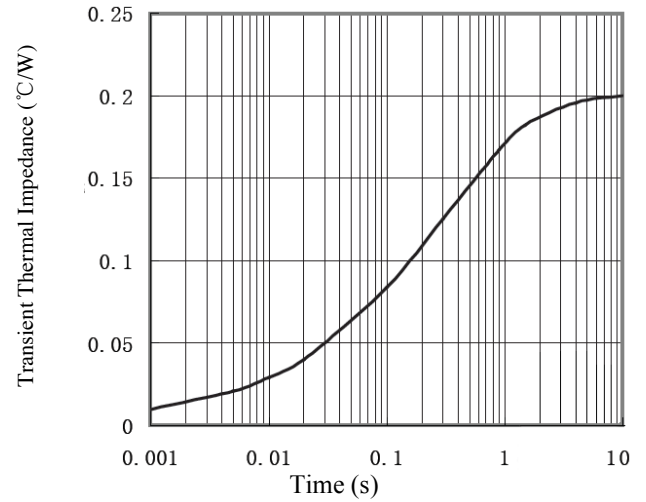
### Electrical characteristics

| Symbol        | Parameter                         | Test condition   | Rating | Unit          |
|---------------|-----------------------------------|--|--------|---------------|
| $I_{RRM}$     | Peak reverse repetitive current   | Single-side heat dissipation, $V_R=V_{RRM}$ , sine half wave, $T_j=150^{\circ}C$ | 8      | mA            |
| $V_{FM}$      | Peak forward voltage              | $I_{FM}=200A, T_j=25^{\circ}C$   | 1.3    | V             |
| $R_{th(j-c)}$ | Thermal impedance (junction-case) | Single-side heat dissipation, sine half wave                                     | 0.2    | $^{\circ}C/W$ |

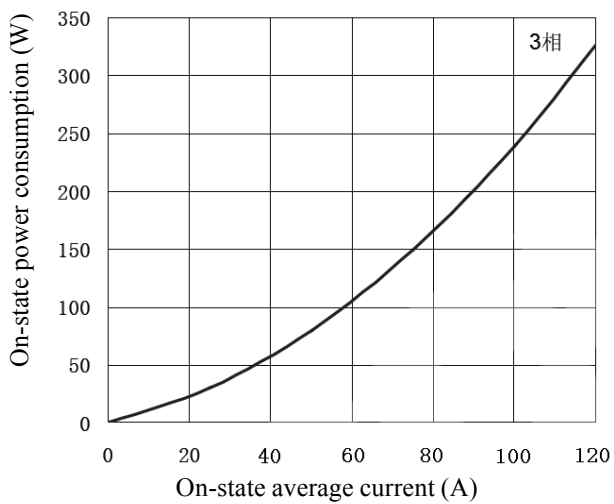
Forward current vs. Forward voltage



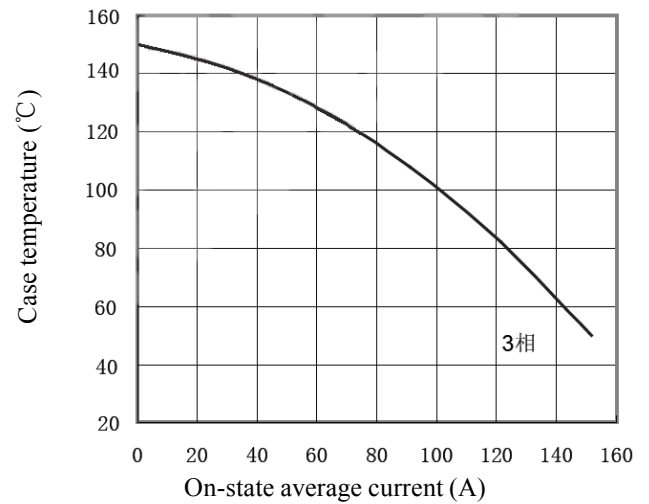
Thermal Impedance (junction to case)



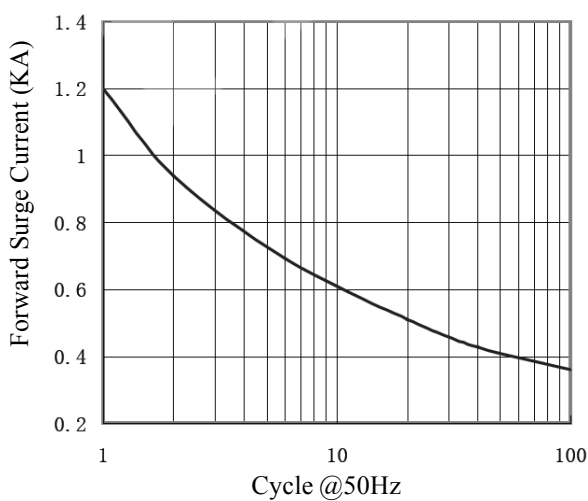
Power Consumption vs. Average Current



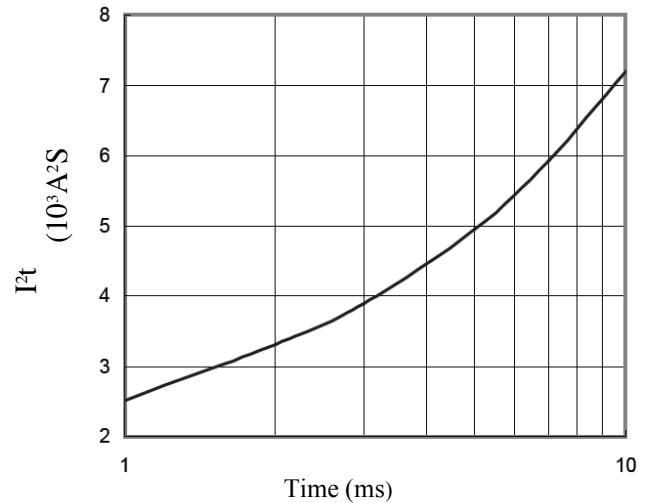
Case Temperature vs. O-state Average Current



Forward Surge Current vs. Cycle



$I^2t$  Characteristics



Dimension

