

## Features

- Electrical insulation between chip and mounting base, 2500V AC insulation
- Excellent temperature characteristics and power cycling capability
- Space-saving and lightweight design

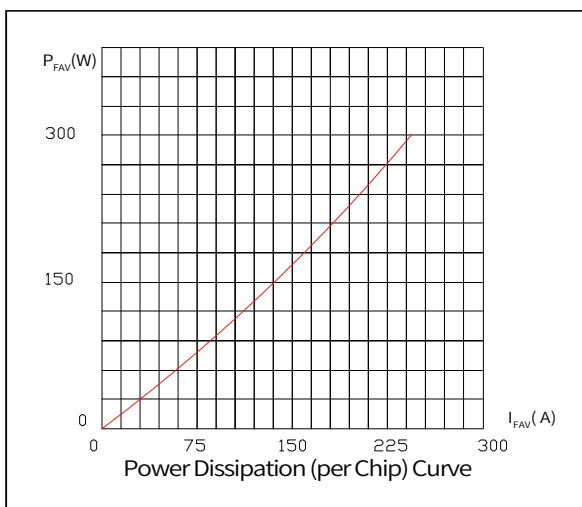
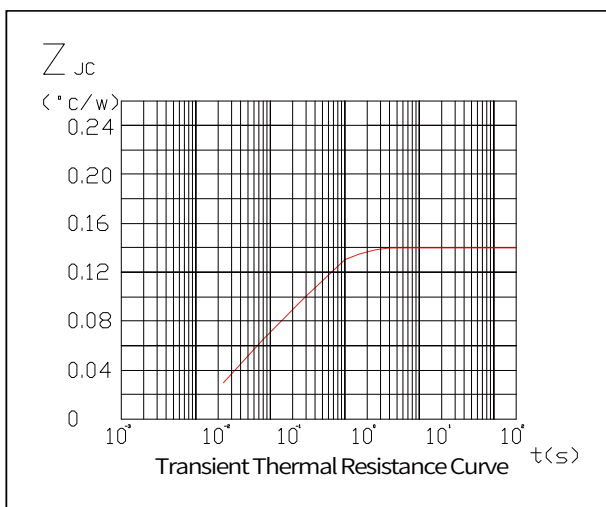
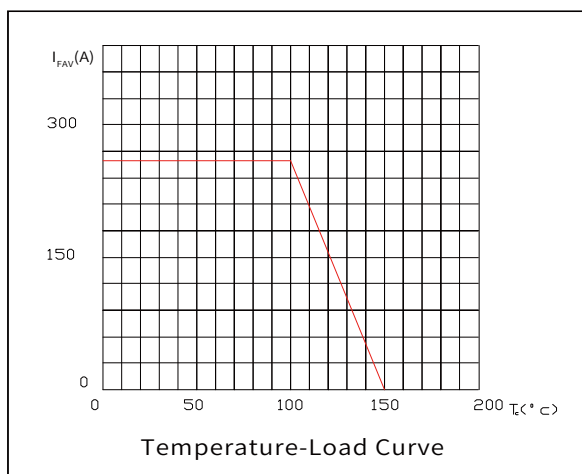
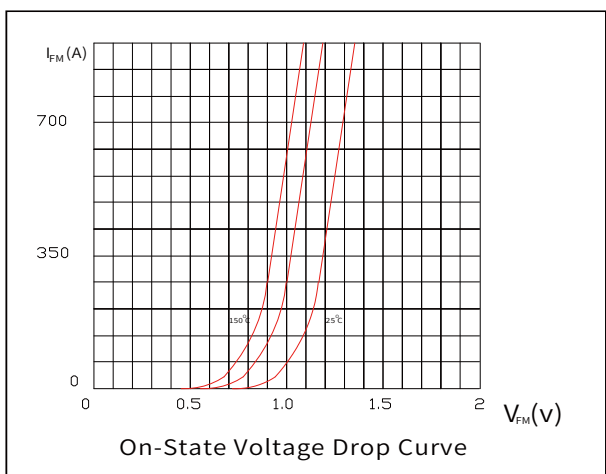
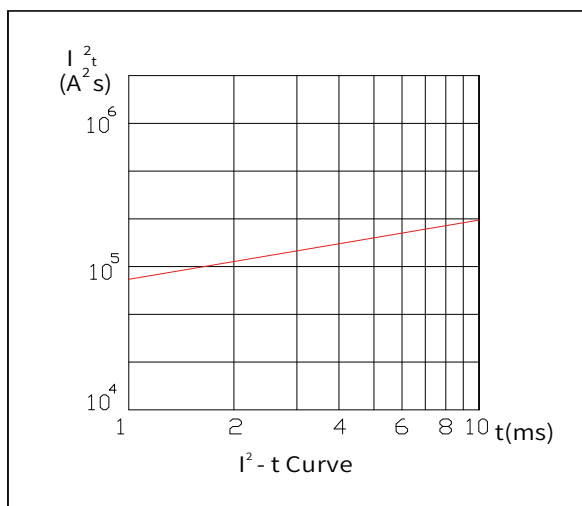
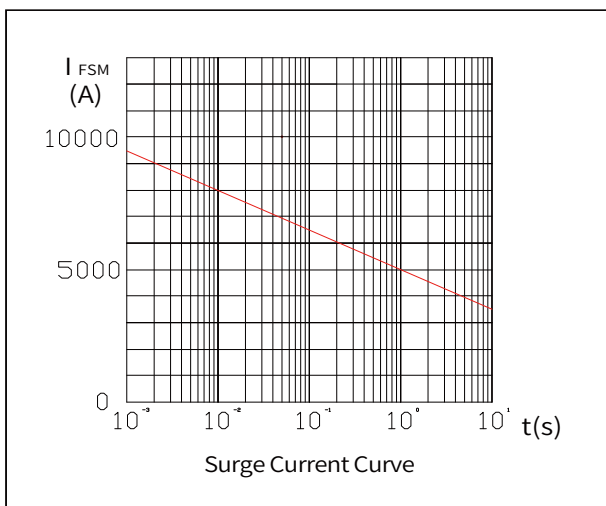
## Typical Applications

- AC/DC motor control
- Various rectifier power supplies
- Frequency converters



| $V_{RSM}(V)$ | $V_{RRM}(V)$ | Model      |
|--------------|--------------|------------|
| 1300         | 1200         | MDC260B-12 |
| 1700         | 1600         | MDC260B-16 |
| 1900         | 1800         | MDC260B-18 |
| 2100         | 2000         | MDC260B-20 |
| 2500         | 2400         | MDC260B-24 |

| Parameter     | Characteristic                          | Test Conditions                                                  | $T_j(^{\circ}C)$ | Value |      |      | Unit              |
|---------------|-----------------------------------------|------------------------------------------------------------------|------------------|-------|------|------|-------------------|
|               |                                         |                                                                  |                  | Min   | Typ  | Max  |                   |
| $I_{F(AV)}$   | Mean Forward Current                    | 180° sine halfwave, 50Hz, singleside cooling, $T_c=100^{\circ}C$ | 150              |       |      | 260  | A                 |
| $I_{FSM}$     | Non-repetitive Surge (On-state) Current | 10ms, sine halfwave, $V_R=0.6V_{RRM}$                            | 150              |       |      | 8    | kA                |
| $I_t^2$       |                                         |                                                                  |                  |       |      | 320  | $A^2s \cdot 10^3$ |
| $I_{RRM}$     | Repetitive Peak Reverse Current         | At $V_{RRM}$                                                     | 150              |       |      | 4    | mA                |
| $V_{FO}$      | Threshold Voltage                       |                                                                  | 150              |       |      | 0.8  | V                 |
| $r_F$         | Slope Resistance                        |                                                                  | 150              |       |      | 0.36 | mΩ                |
| $V_{FM}$      | Peak Forward Voltage                    | $I_{FM}=780A$                                                    | 25               |       | 1.15 | 1.35 | V                 |
| $V_{iso}$     | Insulation Voltage                      | AC, 50Hz, R.M.S, 1min                                            |                  | 2500  |      |      | V                 |
| $R_{th(j-c)}$ | Junction to Case Thermal Resistance     | Singleside cooling, single die                                   |                  |       |      | 0.14 | $^{\circ}C/W$     |
| $R_{th(c-h)}$ | Case to Sink Thermal Resistance         | Singleside cooling, single module                                |                  |       |      | 0.05 | $^{\circ}C/W$     |
| $M_t$         | Terminal Mounting Torque                |                                                                  |                  | 10    |      | 12   | $N \cdot m$       |
| $M_s$         | Base Plate Mounting Torque              |                                                                  |                  | 4     |      | 6    | $N \cdot m$       |
| $T_{stg}$     | Storage Temperature                     |                                                                  |                  | -40   |      | 150  | $^{\circ}C$       |



**Outline Package Dimensions**

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