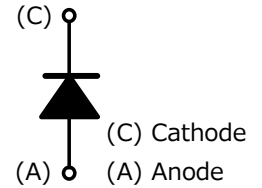


# MMKC575F00\*\*



### Outline

FRD (Bare chip) utilizes various technologies that we cultivated by analog semiconductor device production and is the product which prepared a lineup of the wide high voltage, high current which can contribute to high efficiency and saving energy.

### Applications

- Industrial Motor Drivers
- Inverter
- Welding
- UPS

### Features

- ① Fast Recovery Diode
- ② Low forward voltage
- ③ Soft Recovery
- ④ Fast Switching

### Absolute Maximum Ratings

T<sub>j</sub>=25°C unless otherwise noted.

| Parameter            | Symbol         | Rating   | Unit |
|----------------------|----------------|----------|------|
| Reverse voltage      | VRR            | 1250     | V    |
| Forward current *1)  | IF             | 75       | A    |
| Junction temperature | T <sub>j</sub> | -40~+175 | °C   |

\*1)Forward current is limited by T<sub>j</sub>(max) and thermal properties of assembly.

### Die Specification

| Item                          | Value         | Unit |
|-------------------------------|---------------|------|
| Die thickness                 | 120           | μm   |
| Die size                      | 5.4x7.3(39.4) | mm   |
| Front metal(AlSi)             | 6.5           | μm   |
| Backside metal(AlSi/Ti/Ni/Au) | 1.45          | μm   |

### Electrical Characteristics

T<sub>j</sub>=25°C unless otherwise noted.

| Parameter       | Symbol                | Specification |      |      | Unit | condition                 |
|-----------------|-----------------------|---------------|------|------|------|---------------------------|
|                 |                       | Min           | Typ  | Max  |      |                           |
| Reverse current | IR                    | -             | -    | 9    | μA   | VR=1250V                  |
| Forward voltage | T <sub>j</sub> =25°C  | -             | 1.70 | 2.10 | V    | IF=75A                    |
|                 | T <sub>j</sub> =150°C | -             | 1.70 | -    |      |                           |
|                 | T <sub>j</sub> =175°C | -             | 1.65 | -    |      |                           |
| Recovery time   | t <sub>rr</sub>       | -             | 95   | -    | ns   | IF=75A<br>di/dt≒-2900A/μs |

This characteristic is when it is incorporated in a mold package or evaluation board. Depending on the assembly conditions etc., it may not be satisfied. Please note that it is not a guaranteed value.

### Die Dimension

