

# High Voltage Rectifying Diode

## MD4CH5

● **Features**

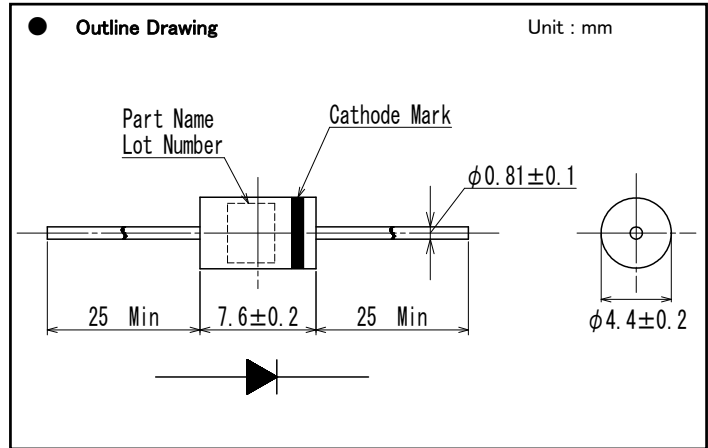
- VRM=4kV to 150kV
- Avalanche characteristics

● **Applications**

- Rectifier for High Frequency

● **Structures**

- Resin molded, and diffused junction silicon diode.
- Part Name : [ 4H5 ]
- Weight : 0.55g
- Terminal plating : Sn
- Conforms to RoHS regulations



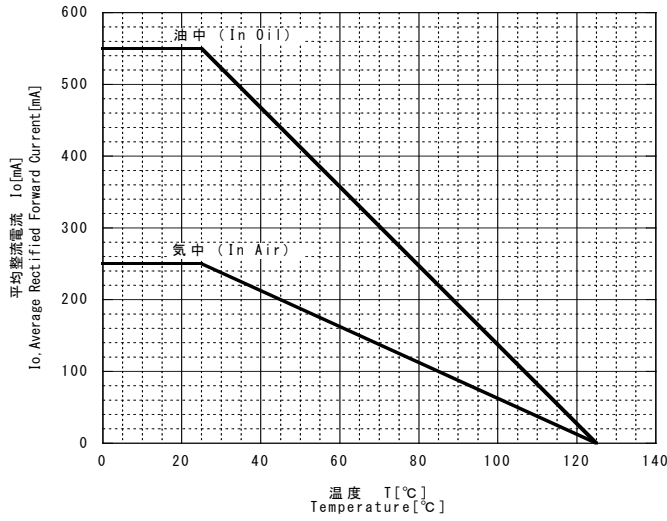
● **Absolute Maximum Ratings**

| Items                             | Symbol    | Conditions  | Ratings  | Unit             |
|-----------------------------------|-----------|---|----------|------------------|
| Repetitive Peak Reverse Voltage   | $V_{RM}$  | In Oil  | 4        | kV               |
|                                   |           | In Air  | 4        |                  |
| Average Rectified Forward Current | $I_O$     | In Oil $T_o=25^\circ\text{C}$ ,<br>50Hz,Single-phase,Half sin Wave  | 550      | mA               |
|                                   |           | In Air $T_a=25^\circ\text{C}$ ,<br>50Hz,Single-phase,Half sin Wave  | 250      |                  |
| Peak Forward Surge Current        | $I_{SM}$  | $T_a=25^\circ\text{C}$ ,<br>50Hz,Half sin wave, Peak, Non-Repeative | 30       | A                |
| Operating Junction Temperature    | $T_j$     | —   | -30~+125 | $^\circ\text{C}$ |
| Storage Temperature               | $T_{stg}$ | —   | -30~+125 | $^\circ\text{C}$ |

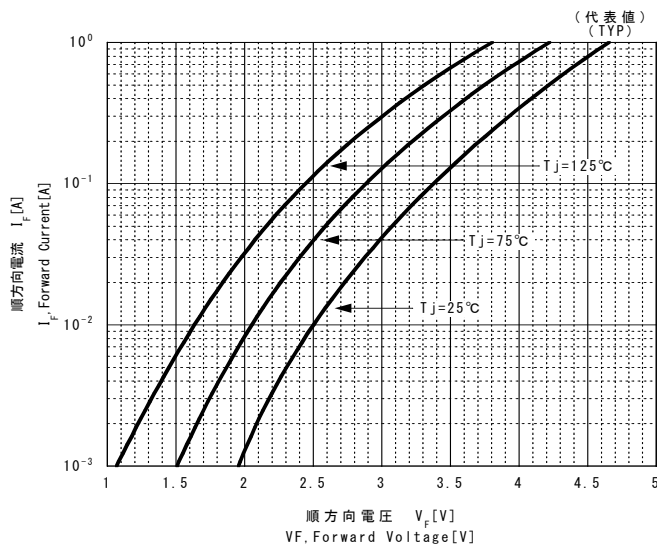
● **Electrical Characteristics ( $T_a=25^\circ\text{C}$ )**

| Items                   | Symbol   | Conditions   | MAX. | Unit          |
|-------------------------|----------|--|------|---------------|
| Forward Voltage Drop    | $V_F$    | $I_F=550\text{mA}$   | 6    | V             |
| Reverse Leakage Current | $I_R$    | $V_R=4\text{kV}$   | 10   | $\mu\text{A}$ |
| Reverse Recovery Time   | $t_{rr}$ | $I_F=100\text{mA}$ , $I_R=200\text{mA}$ , $I_{RR}=50\text{mA}$ | 500  | ns            |

● Characteristics Diagrams



AVERAGE RECTIFIED FORWARD CURRENT



FORWARD CHARACTERISTICS