# Schottky Diode Module

**Reverse Voltage** 200V

**Forward Current** 200 Amp

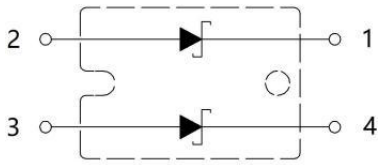
## Features

- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

## Applications

- Inversion Welder
- Gemeral Power Supply
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper

## Circuit




## ■ Maximum Ratings

| Symbol | Item | Conditions | Values | Unit |
|---|---|---|---|---|
| $V_R$ | Maximum D.C. Reverse Voltage | | 200 | V |
| $V_{RRM}$ | Maximum Repetitive Reverse Voltage | | | |
| $I_{FAV}$ | Average Forward Current | Rectangular， d=0.5， Tc=102℃， Per Leg | 100 | A |
| | | Rectangular， d=0.5， Tc=102℃， Per Moudle | 200 | |
| $I_{FSM}$ | Non-Repetitive Peak Surge Current | $T_j$ = 25℃, t = 50Hz(10ms), $V_R$ = 0V， Per Leg | 1650 | A |
| $I^2t$ | Circuit Fusing Consideration | t = 10ms $T_j$ =25℃ | 13600 | $A^2s$ |
| $V_{ISO}$ | Isolation Breakdown Voltage | AC 50Hz/60Hz; R.M.S; 1min | 2500 | V |
| $T_j$ | Operating Junction Temperature | | -40 to +150 | ℃ |
| $T_{stg}$ | Storage Temperature | | -40 to +125 | ℃ |
| $M_t$ | Mounting Torque | To Terminals(M4) | 0.7~1.1 | N·m |
| $M_s$ | | To Heatsink(M4) | 0.7~1.1 | |
| Weight | Module (Approximately) | | 34 | g |

## ■ Thermal Characteristics

| Symbol | Item | Conditions | Values | Unit |
|---|---|---|---|---|
| $R_{th(j-c)}$ | Thermal Impedance, Max | Junction to Case(Per Leg) | 0.4 | ℃/W |
| $R_{th(c-s)}$ | Thermal Impedance, Max | Case to Heat Sink | 0.1 | ℃/W |

## ■ Electrical Characteristics

| Symbol | Item | Conditions | Values | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min. | Typ. | Max. | |
| $V_{FM}$ | Forward Voltage Drop Per Leg, Max | Tj=25℃， $I_F$=100A | – | – | 1.0 | V |
| $I_{RRM}$ | Repetitive Peak Reverse Current Per Leg, Max | $T_j$ = 25℃ $V_R$ = $V_{RRM}$ | – | – | 0.2 | mA |
| | | $T_j$ = 150℃ $V_R$ = $V_{RRM}$ | – | – | 20 | |
| $V_{T0}$ | Threshold Voltage, for power loss calculation only | $T_j$ = 125℃ | 0.5 | | | V |
| $r_T$ | Slope Resistance, for power loss calculation only | $T_j$ = 125℃ | 3.5 | | | mΩ |

## Performance Curves

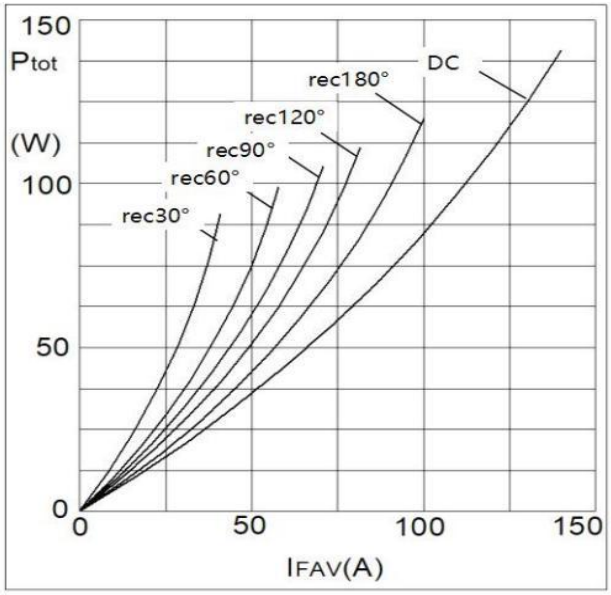



Fig1. Power Dissipation

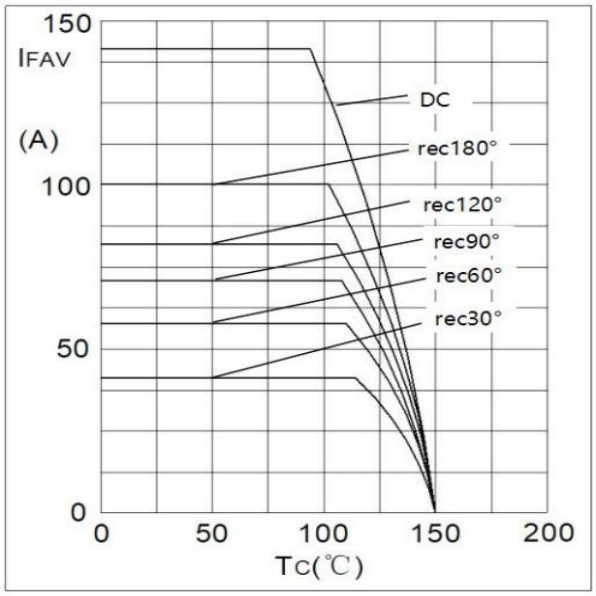



Fig2. Forward Current Derating Curve

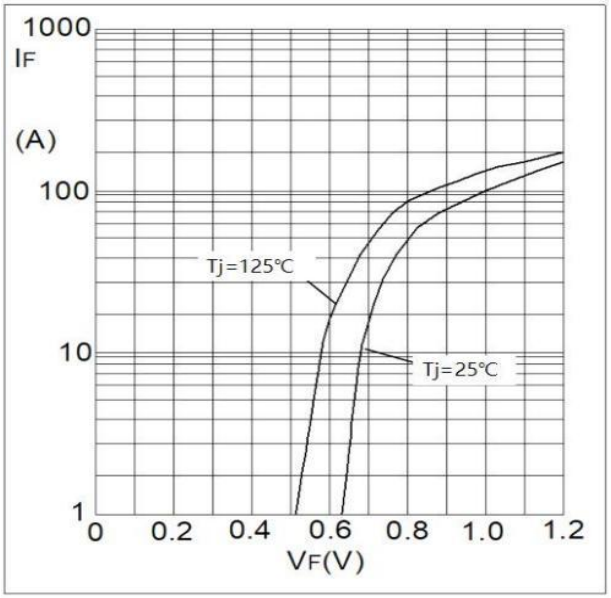



Fig3. Forward Characteristics

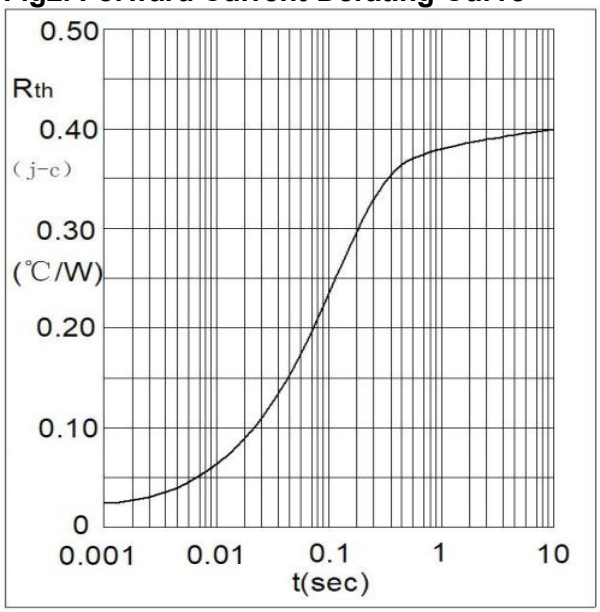



Fig4. Transient Thermal Impedance

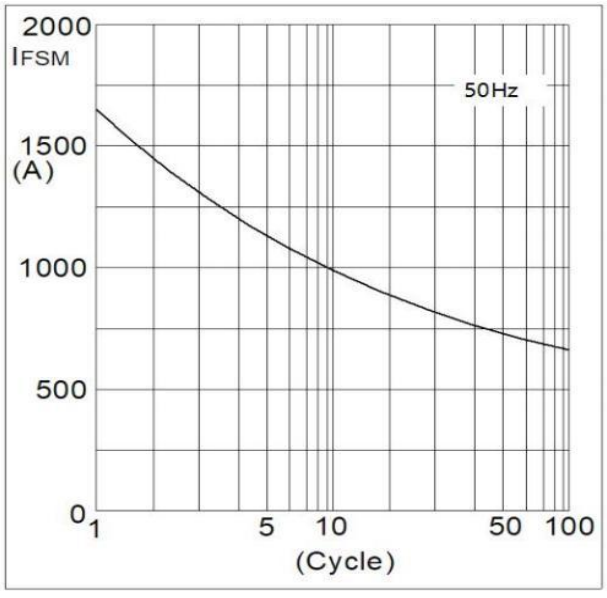



Fig5. Max Non-Repetitive Forward Surge Current

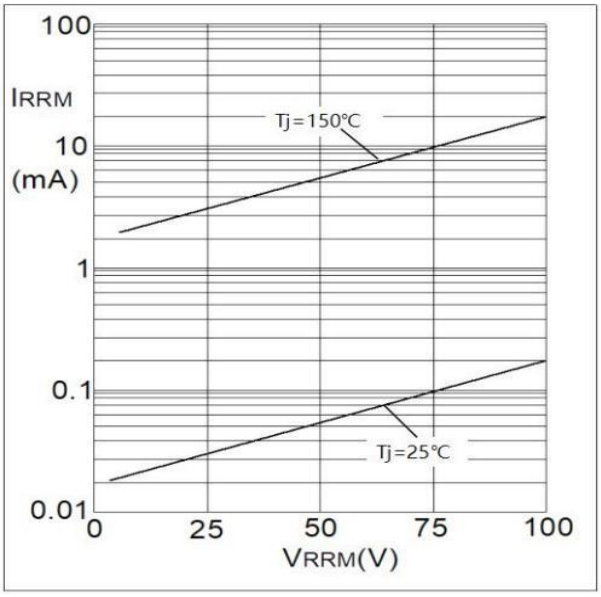
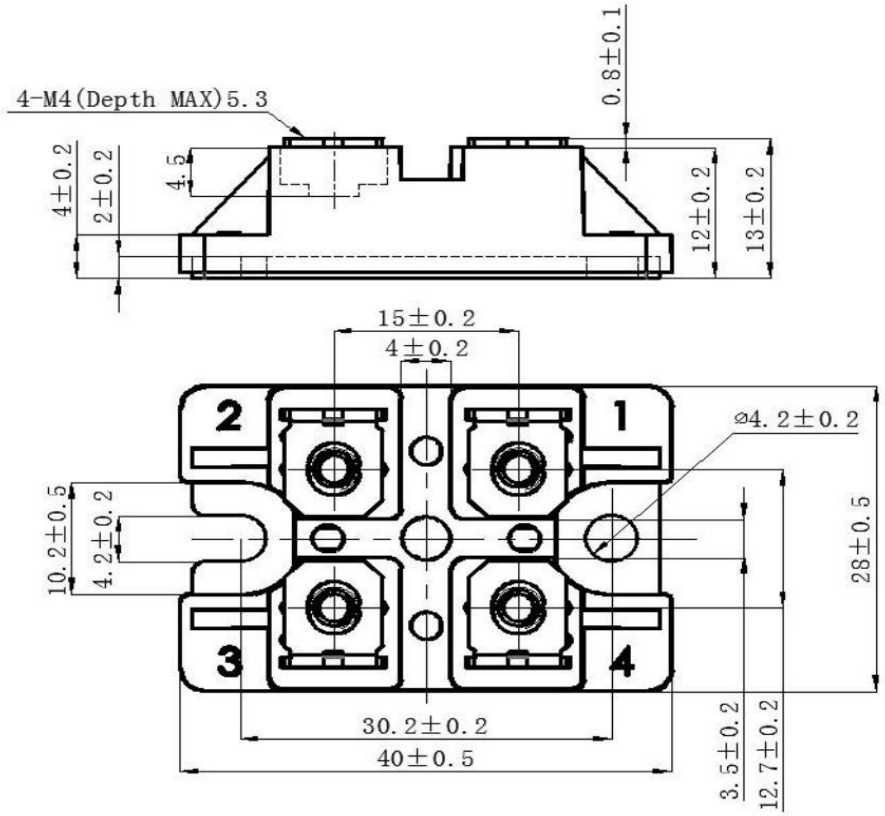



Fig6. Reverse Current VS Reverse Voltage

## Package Outline Information

### CASE: M58

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