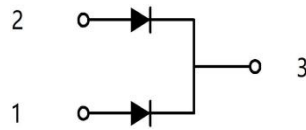


Schottky Diode Module

| Symbol | Value | Unit |
|-----------|-------|------|
| V_R | 200 | V |
| I_{FAV} | 400 | A |



Features

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

Applications

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

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, $d=0.5$, $T_C=102^\circ\text{C}$, Per Leg | 200 | A |
| | | Rectangular, $d=0.5$, $T_C=102^\circ\text{C}$, Per Module | 400 | |
| I_{FSM} | Non-Repetitive Peak Surge Current | $t=50\text{Hz}(10\text{ms})$, $V_R=0\text{V}$, Per Leg, $T_j=25^\circ\text{C}$ | 3300 | A |
| I^2t | Circuit Fusing Consideration | $t=10\text{ms}$, $T_j=25^\circ\text{C}$ | 54450 | A^2s |
| T_j | Operating Junction Temperature | - | -40 to +150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | - | -40 to +125 | $^\circ\text{C}$ |
| M_t | Mounting Torque | To Terminals(M6) | 5±15% | N·m |
| M_s | | To Heatsink(M6) | 5±15% | |
| Weight | Module (Approximately) | - | 65 | g |

Thermal Characteristics

| Symbol | Item | Conditions | Values | Unit |
|---------------|------------------------|---------------------------|--------|---------------------------|
| $R_{th(j-c)}$ | Thermal Impedance, Max | Junction to Case(Per Leg) | 0.2 | $^\circ\text{C}/\text{W}$ |

Electrical Characteristics

| Symbol | Item | Conditions | Values | | | Unit |
|-----------|--|--|--------|------|------|------------|
| | | | Min. | Typ. | Max. | |
| V_{FM} | Forward Voltage Drop Per Leg, Max | $T_j=25^\circ\text{C}$, $I_F=100\text{A}$ | - | - | 0.95 | V |
| I_{RRM} | Repetitive Peak Reverse Current Per Leg, Max | $T_j=25^\circ\text{C}$, $V_R=V_{RRM}$ | - | - | 0.2 | mA |
| | | $T_j=150^\circ\text{C}$, $V_R=V_{RRM}$ | - | - | 40 | |
| V_{T0} | Threshold Voltage, for power loss calculation only | $T_j=125^\circ\text{C}$ | 0.5 | | | V |
| r_T | Slope Resistance, for power loss calculation only | $T_j=125^\circ\text{C}$ | 1.75 | | | m Ω |

Characteristics Diagram

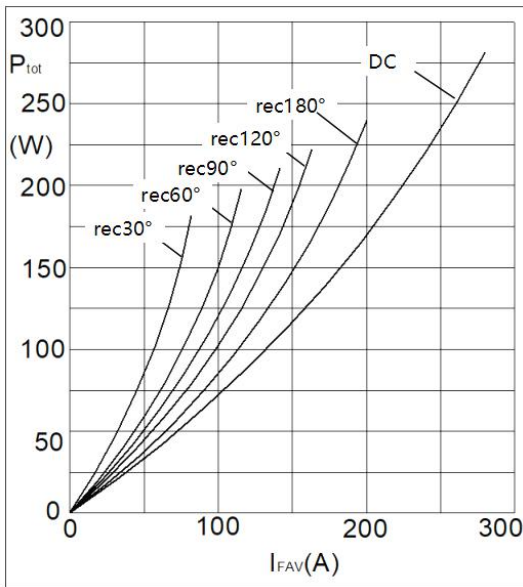


Fig1. Power Dissipation

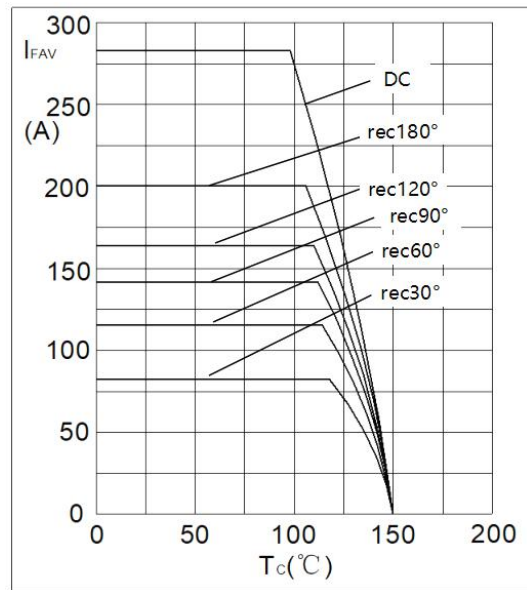


Fig2. Forward Current Derating Curve

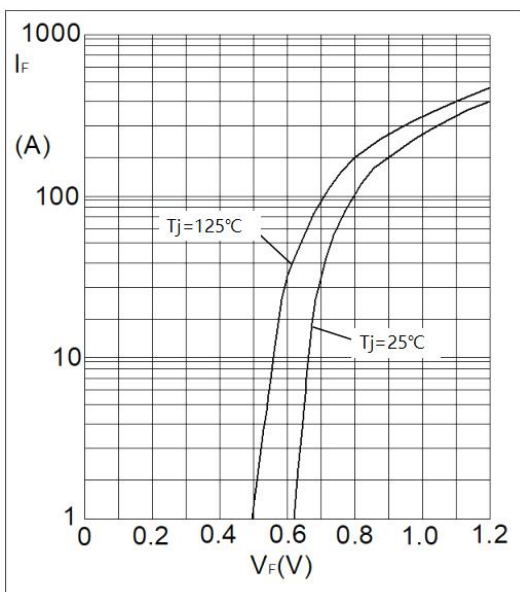


Fig3. Forward Characteristics

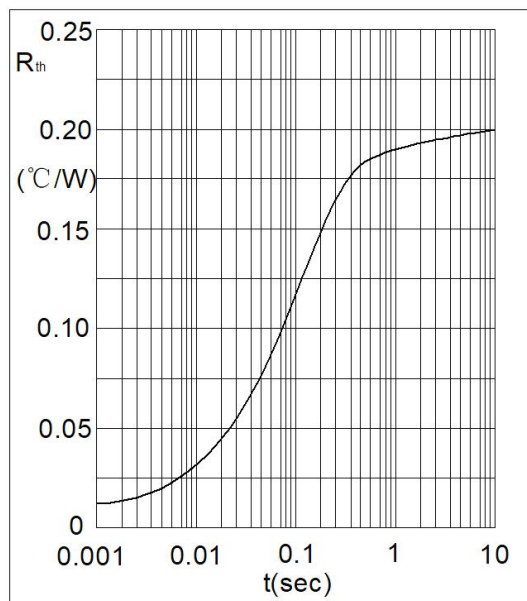


Fig4. Transient Thermal Impedance

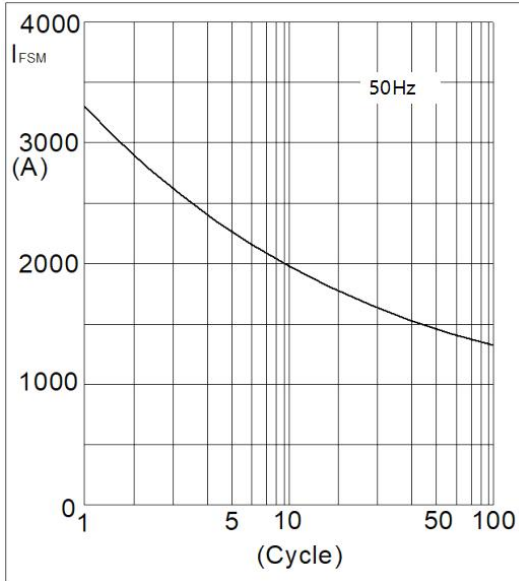


Fig5. Max Non-Repetitive Forward Surge Current

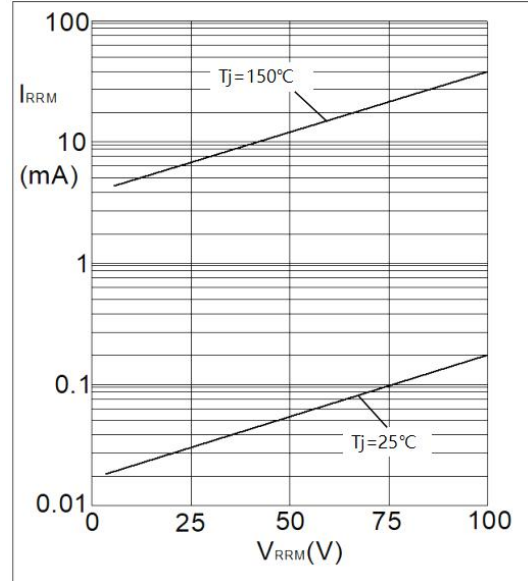
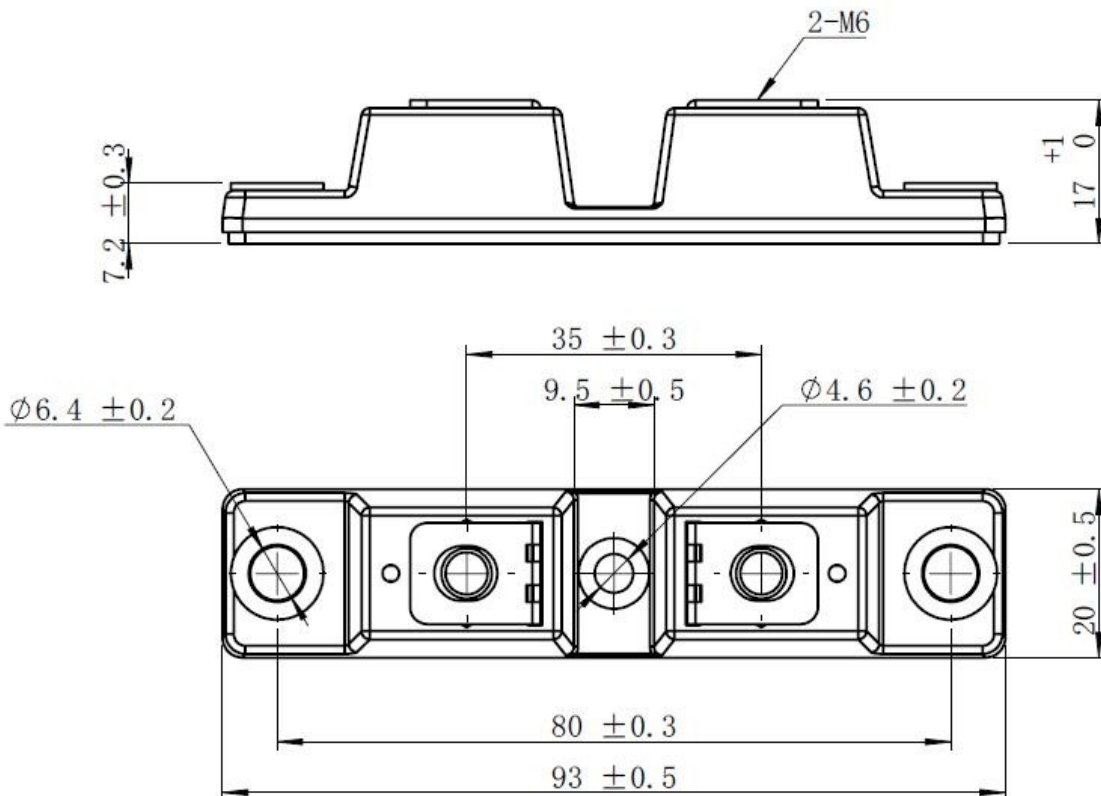


Fig6. Reverse Current VS Reverse Voltage

Package Outlines M31 (Dimensions in mm)



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