



## SiC Schottky Power Modules

**V<sub>RRM</sub>** 1200V  
**I<sub>FAV</sub>** 2×100 A

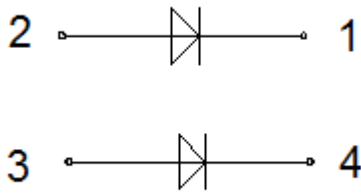
### Applications

- Welding Equipment
- Uninterruptible Power Supply (UPS)
- High Frequency Power Supply
- Induction Heating
- High Speed Rectifiers

### Features

- **SiC Schottky Diode:**
  - Zero reverse recovery
  - Zero forward recovery
  - Temperature independent switching behavior
  - Positive temperature coefficient VF
- Very low stray inductance
- High level of integration
- Low Forward Voltage
- Isolated package (SOT-227)
- Low noise switching
- RoHS Compliant

**Circuit**



### Maximum Ratings

| Symbol           | Conditions                        | Values      | Units |
|------------------|-----------------------------------|-------------|-------|
| V <sub>RRM</sub> |                                   | 1200        | V     |
| V <sub>RSM</sub> |                                   | 1300        | V     |
| I <sub>F</sub>   | T <sub>J</sub> =175°C, Per diode  | 100         | A     |
|                  | T <sub>J</sub> =175°C, Per Module | 200         | A     |
| I <sub>FSM</sub> | 1/2 Cycle , 50Hz, Sine            |             | A     |
| T <sub>J</sub>   |                                   | -55 to +175 | °C    |
| T <sub>STG</sub> |                                   | -55 to +175 | °C    |
| Torque           | To Sink Recommended (M4)          | 0.6~1.2     | N·m   |
| Torque           | To Terminal Recommended (M4)      | 0.6~1.1     | N·m   |
| Weight           |                                   | 27          | g     |

### Thermal Characteristics

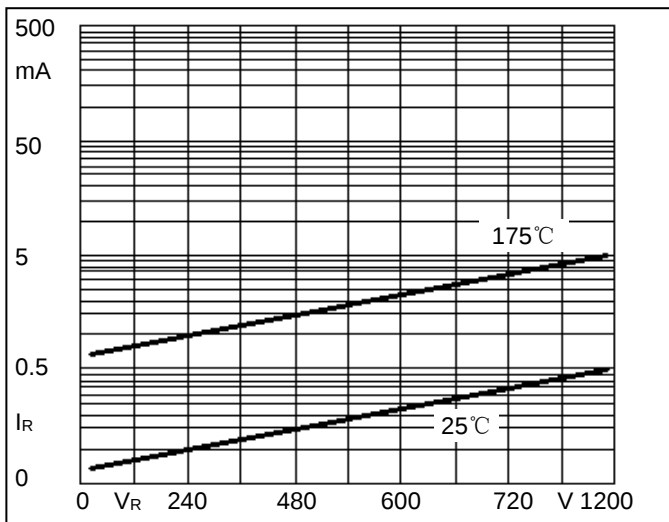
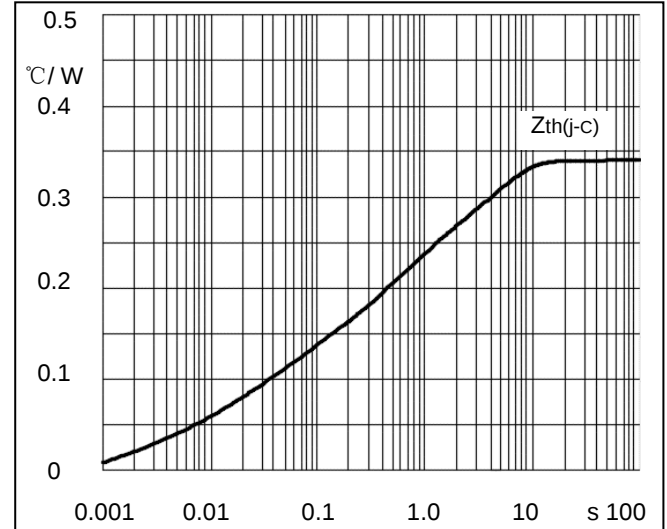
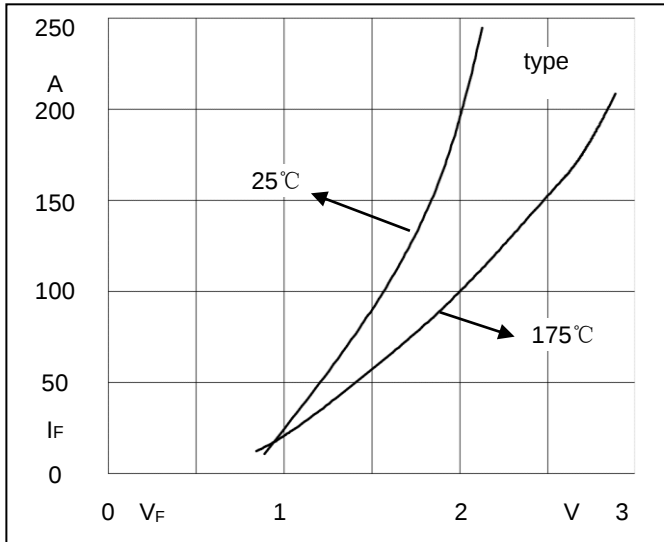
| Symbol               | Conditions | Values | Units |
|----------------------|------------|--------|-------|
| R <sub>th(j-c)</sub> | Per diode  | 0.34   | °C/W  |
| R <sub>th(c-s)</sub> | Per module | 0.2    | °C/W  |

### Electrical Characteristics

| Symbol          | Conditions                                    | Values |      |      | Units |
|-----------------|-----------------------------------------------|--------|------|------|-------|
|                 |                                               | Min.   | Typ. | Max. |       |
| I <sub>RM</sub> | V <sub>R</sub> =1200V                         | --     | 10   | 500  | uA    |
|                 | V <sub>R</sub> =1200V, T <sub>J</sub> =175°C  | --     | 0.6  | 5    | mA    |
| V <sub>F</sub>  | I <sub>F</sub> =100A, , T <sub>J</sub> =25°C  | --     | 1.55 | 1.8  | V     |
|                 | I <sub>F</sub> =100A, , T <sub>J</sub> =175°C | --     | 2    | 2.5  |       |

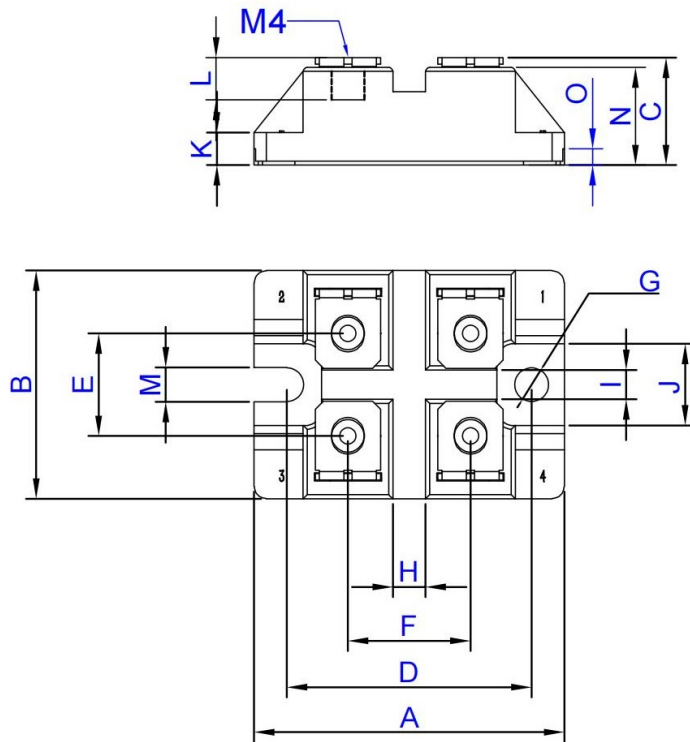


## Performance Curves



## Package Outline Information

CASE: FJ



| DIM | Min (mm) | Max (mm) | Note |
|-----|----------|----------|------|
| A   | 37.5     | 38.5     |      |
| B   | 27.5     | 28.5     |      |
| C   | 12.8     | 13.5     |      |
| D   | 29.5     | 30.5     |      |
| E   | 12.1     | 13.1     |      |
| F   | 14.5     | 15.5     |      |
| G   | 4.0      | 4.4      | Ø    |
| H   | 3.7      | 4.3      |      |
| I   | 3.3      | 3.9      |      |
| J   | 9.5      | 10.5     |      |
| K   | 3.7      | 4.3      |      |
| L   | 5.0      | 5.5      |      |
| M   | 4.0      | 4.4      |      |
| N   | 11.7     | 12.3     |      |
| O   | 1.8      | 2.2      |      |

## Packing Standard

| Item         | Length: A (mm) | Width: B (mm) | Height: C (mm) | Quantity (PCS) |
|--------------|----------------|---------------|----------------|----------------|
| Inner EPE    | 252            | 246           | 25             | 25             |
| Inner Box    | 290            | 252           | 40             | 25             |
| Outer Carton | 300            | 270           | 280            | 150            |



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