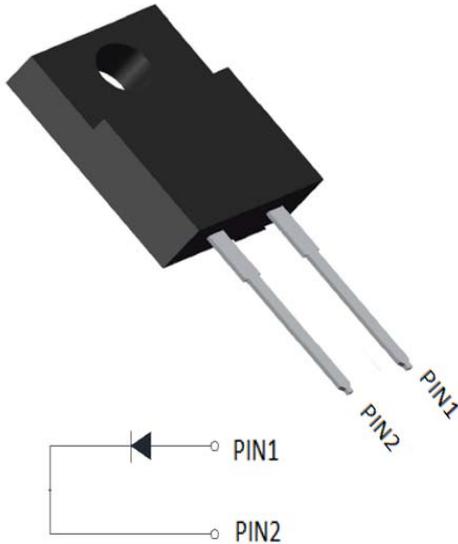


## Schottky Diodes



### Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

### Mechanical Data

- **Package:** ITO-220AC  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

### ■Maximum Ratings (T<sub>j</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT             | MBR10200F-B1-W5094HF |
|---|------------------|------------------|----------------------|
| Device marking code   |                  |                  | MBR10200F            |
| Repetitive Peak Reverse Voltage   | V <sub>RRM</sub> | V                | 200                  |
| Average Rectified Output Current<br>@60Hz sine wave, R-load, T <sub>c</sub> (FIG.1)         | I <sub>o</sub>   | A                | 10                   |
| Surge(Non-repetitive)Forward Current<br>@60Hz half sine-wave, 1 cycle, T <sub>j</sub> =25°C | I <sub>FSM</sub> | A                | 150                  |
| Current Squared Time<br>@1ms≤t≤8.3ms T <sub>j</sub> =25°C,                                  | I <sup>2</sup> t | A <sup>2</sup> s | 94                   |
| Storage Temperature   | T <sub>stg</sub> | °C               | -55 ~ +150           |
| Junction Temperature  | T <sub>j</sub>   | °C               | -55 ~ +150           |

### ■Electrical Characteristics (T<sub>j</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL            | UNIT | TEST CONDITIONS  | MBR10200F-B1-W5094HF |
|---|-------------------|------|--|----------------------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V    | I <sub>FM</sub> =10.0A                                     | 0.95                 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM1</sub> | mA   | V <sub>RM</sub> =V <sub>RRM</sub><br>T <sub>j</sub> =25°C  | 0.1                  |
|   | I <sub>RRM2</sub> |      | V <sub>RM</sub> =V <sub>RRM</sub><br>T <sub>j</sub> =100°C | 20                   |

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS



# MBR10200F-B1-W5094HF

## ■ Thermal Characteristics (T<sub>j</sub>=25°C Unless otherwise specified)

| PARAMETER          |                           | SYMBOL            | UNIT | MBR10200F-B1-W5094HF |
|--------------------|---------------------------|-------------------|------|----------------------|
| Thermal Resistance | Between junction and case | R <sub>θJ-C</sub> | °C/W | 4.0                  |

## ■ Ordering Information (Example)

| PREFERRED P/N        | UNIT WEIGHT(g)  | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| MBR10200F-B1-W5094HF | Approximate 1.5 | 50                   | 1000                    | 5000                       | Tube          |

## ■ Characteristics (Typical)

FIG1: I<sub>o</sub> -T<sub>c</sub> Curve

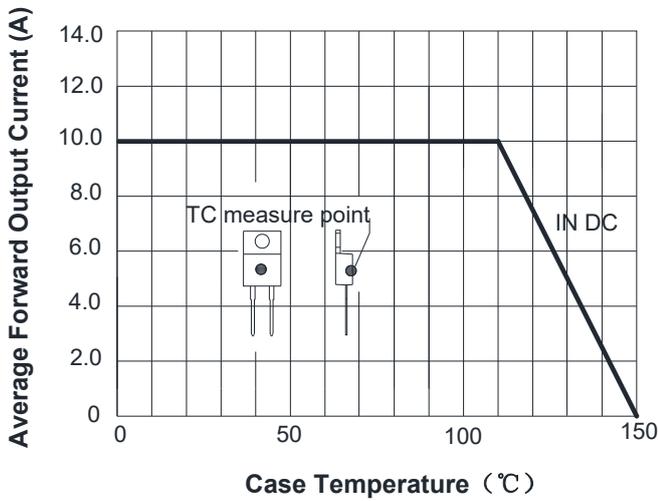


FIG2: Surge Forward Current Capability

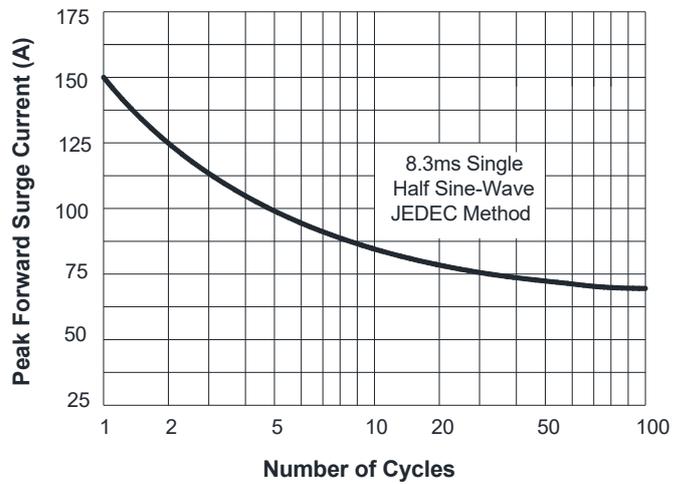


FIG3: Forward Voltage

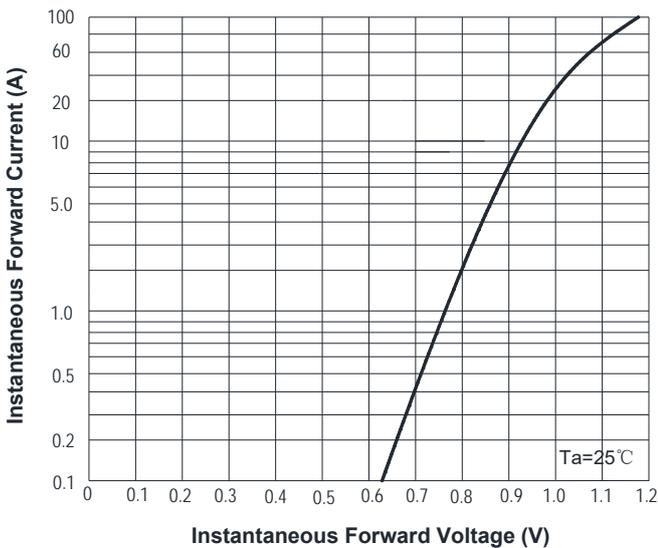
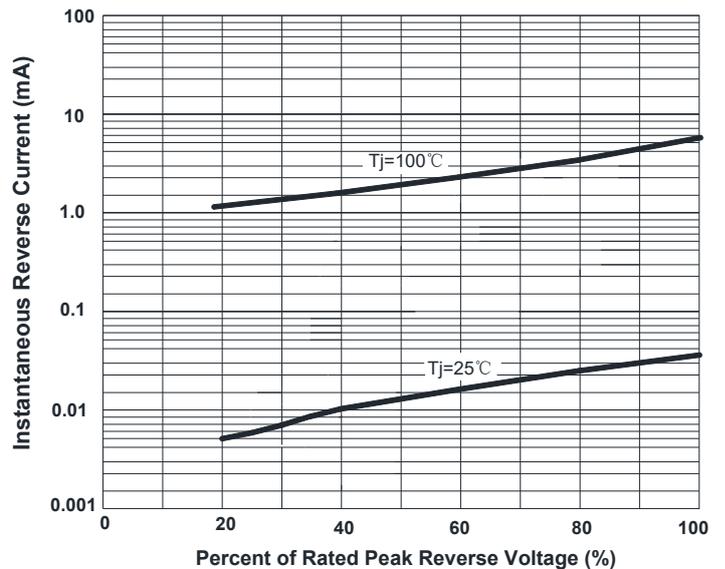


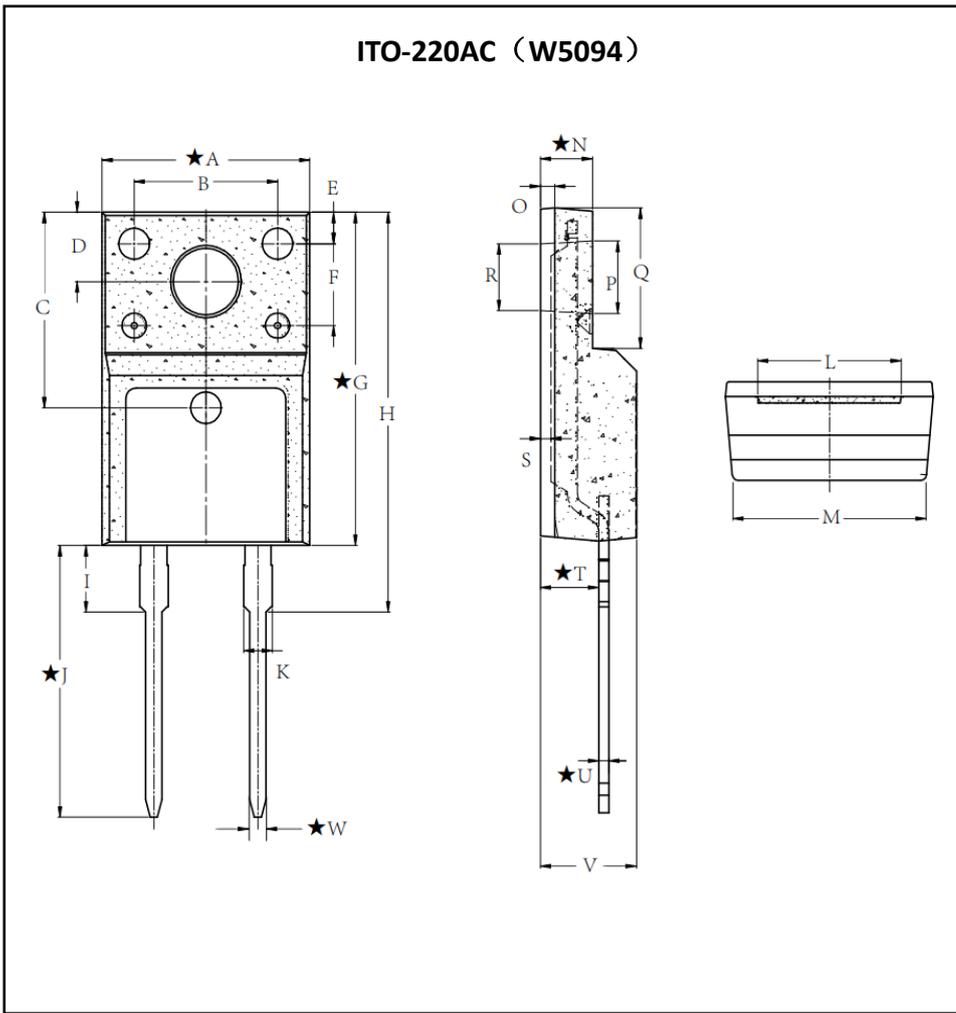
FIG4: Typical Reverse Characteristics





# MBR10200F-B1-W5094HF

## ■Outline Dimensions



| ITO-220AC |           |       |
|-----------|-----------|-------|
| Dim       | Min       | Max   |
| A         | 10.03     | 10.23 |
| B         | 6.9       | 7.1   |
| C         | 9.21      | 9.41  |
| D         | 3.2       | 3.4   |
| E         | 1.4       | 1.6   |
| F         | 3.8       | 4.0   |
| G         | 15.72     | 16.02 |
| H         | TYP 19.05 |       |
| I         | TYP 3.18  |       |
| J         | 12.65     | 13.25 |
| K         | 1.3       | 1.5   |
| L         | 6.5       | 7.5   |
| M         | 9.23      | 9.63  |
| N         | 2.44      | 2.64  |
| O         | TYP 0.7   |       |
| P         | 3.35      | 3.55  |
| Q         | 6.58      | 6.78  |
| R         | 3.08      | 3.28  |
| S         | TYP 0.52  |       |
| T         | 2.75      | 2.95  |
| U         | 0.4       | 0.6   |
| V         | 4.5       | 4.9   |
| W         | 0.71      | 0.91  |



## MBR10200F-B1-W5094HF

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