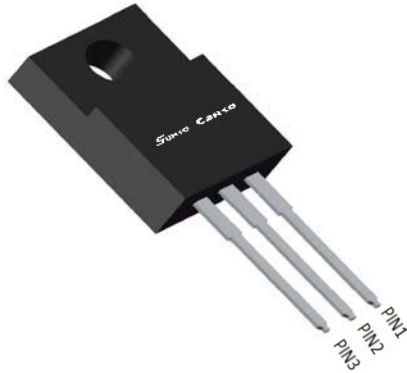


## Schottky Diodes



### Features

- High frequency operation
- 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-220AB  
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

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

| PARAMETER                                                                               | SYMBOL           | UNIT             | MBR1065FCT |
|-----------------------------------------------------------------------------------------|------------------|------------------|------------|
| Device marking code                                                                     |                  |                  | MBR1065FCT |
| Repetitive Peak Reverse Voltage                                                         | V <sub>RRM</sub> | V                | 65         |
| Average Rectified Output Current @60Hz sine wave, R-load, T <sub>a</sub> =25°C          | I <sub>O</sub>   | A                | 10         |
| Surge(Non-repetitive)Forward Current @60Hz half sine-wave,1 cycle, T <sub>a</sub> =25°C | I <sub>FSM</sub> | A                | 120        |
| Current Squared Time @1ms≤t<8.3ms T <sub>j</sub> =25°C,                                 | i <sup>2</sup> t | A <sup>2</sup> s | 60         |
| Storage Temperature                                                                     | T <sub>stg</sub> | °C               | -55 ~ +150 |
| Junction Temperature                                                                    | T <sub>j</sub>   | °C               | -55 ~ +150 |

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

| PARAMETER                                                         | SYMBOL            | UNIT | TEST CONDITIONS                                            | MBR1065FCT |
|-------------------------------------------------------------------|-------------------|------|------------------------------------------------------------|------------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V    | I <sub>FM</sub> =5.0A                                      | 0.72       |
| 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>a</sub> =25°C  | 0.2        |
|                                                                   | I <sub>RRM2</sub> |      | V <sub>RM</sub> =V <sub>RRM</sub><br>T <sub>a</sub> =125°C | 50         |

# MBR1065FCT

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

| PARAMETER          |                           | SYMBOL            | UNIT | MBR1065FCT |
|--------------------|---------------------------|-------------------|------|------------|
| 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 |
|---------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| MBR1065FCT    | Approximate 1.6 | 50                   | 1000                    | 5000                       | Tube          |

## ■ Characteristics (Typical)

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

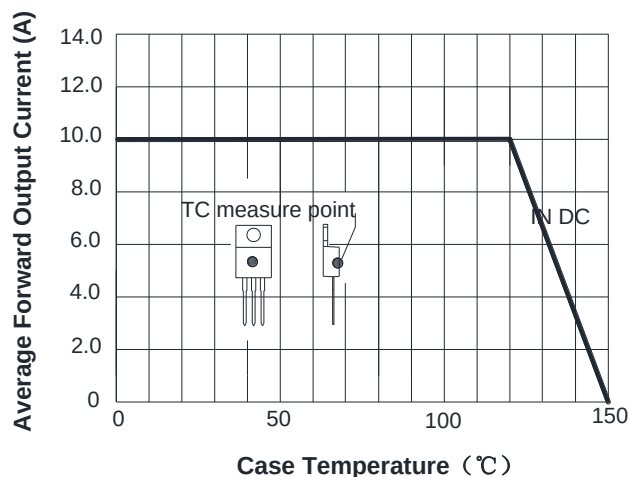


FIG2: Surge Forward Current Capability

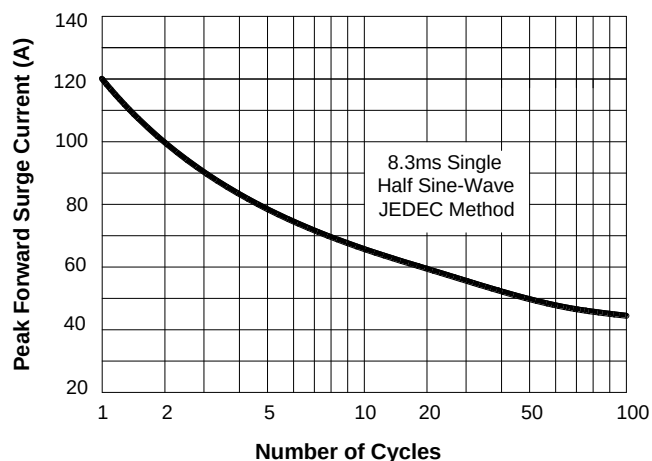


FIG3: Forward Voltage

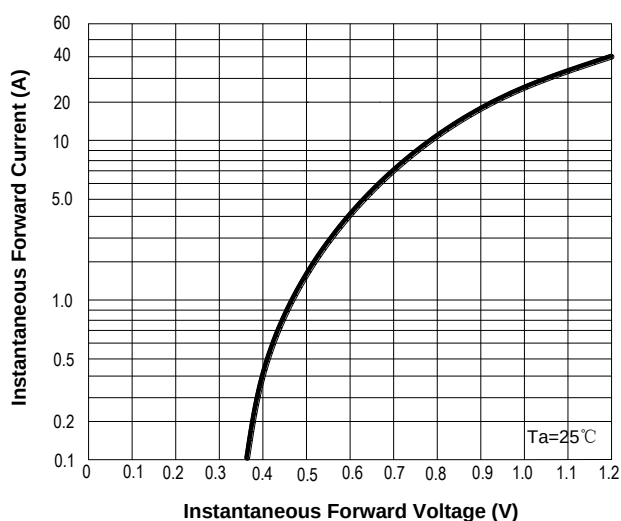
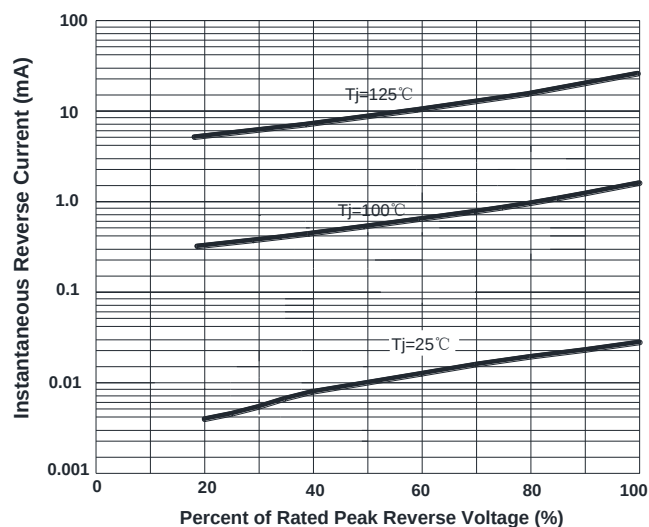
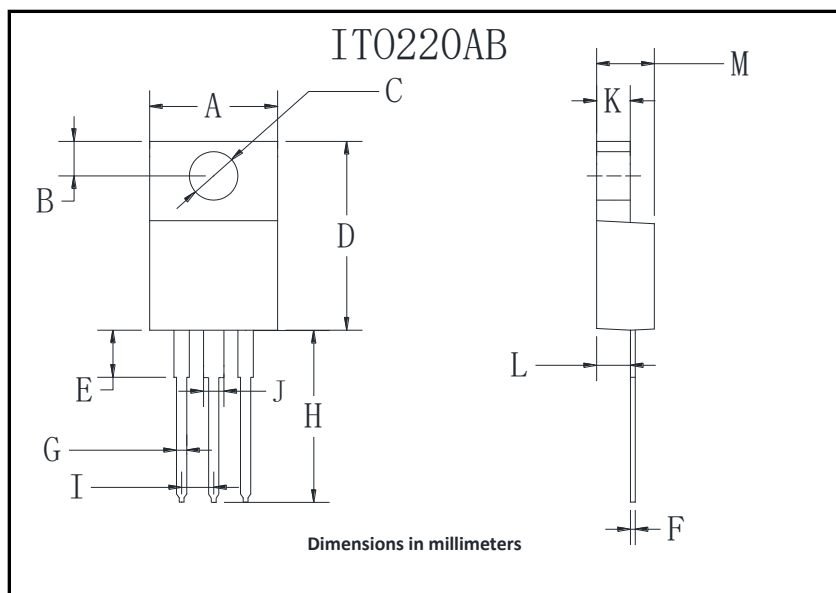


FIG4: Typical Reverse Characteristics



## ■Outline Dimensions



| ITO-220AB |      |      |
|-----------|------|------|
| Dim       | Min  | Max  |
| A         | 9.7  | 10.7 |
| B         | 2.15 | 3.25 |
| C         | 2.6  | 3.8  |
| D         | 14.4 | 15.9 |
| E         | 3.1  | 4.5  |
| F         | 0.4  | 0.8  |
| G         | 0.4  | 0.8  |
| H         | 12.7 | 14.2 |
| I         | 1.80 | 2.95 |
| J         | 1.4  | 1.8  |
| K         | 2.1  | 3.56 |
| L         | 2.1  | 3.2  |
| M         | 3.9  | 5.1  |

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