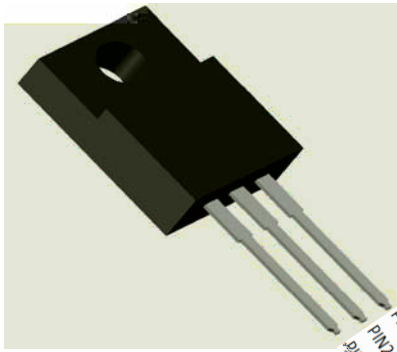


## Schottky Diodes



### 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, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

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

| PARAMETER                                                                                | SYMBOL           | UNIT             | MBR3045FCTS |
|------------------------------------------------------------------------------------------|------------------|------------------|-------------|
| Device marking code                                                                      |                  |                  | MBR3045FCTS |
| Repetitive Peak Reverse Voltage                                                          | VRRM             | V                | 45          |
| Average Rectified Output Current<br>@60Hz sine wave, R-load, T <sub>a</sub> =25          | I <sub>O</sub>   | A                | 30          |
| Surge(Non-repetitive)Forward Current<br>@60Hz half sine-wave,1 cycle, T <sub>a</sub> =25 | I <sub>FSM</sub> | A                | 200         |
| Current Squared Time<br>@1ms<t<8.3ms T <sub>j</sub> =25                                  | I <sup>2</sup> t | A <sup>2</sup> s | 166         |
| Storage Temperature                                                                      | T <sub>stg</sub> |                  | -55 ~ +150  |
| Junction Temperature                                                                     | T <sub>j</sub>   |                  | -55 ~ +150  |

### ■Electrical Characteristics T<sub>a</sub>=25 Unless otherwise specified

| PARAMETER                                                         | SYMBOL            | UNIT | TEST CONDITIONS                                          | MBR3045FCTS |
|-------------------------------------------------------------------|-------------------|------|----------------------------------------------------------|-------------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V    | I <sub>FM</sub> =15.0A                                   | 0.65        |
| 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  | 0.2         |
|                                                                   | I <sub>RRM2</sub> |      | V <sub>RM</sub> =V <sub>RRM</sub><br>T <sub>a</sub> =100 | 100         |

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

Note2:Pulse test:pulse width 40mS



# MBR3045FCTS

■Thermal Characteristics     $T_a=25$     Unless otherwise specified

| PARAMETER | SYMBOL | UNIT |  |
|-----------|--------|------|--|
|-----------|--------|------|--|





## Disclaimer

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The product listed herei