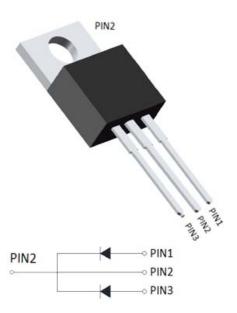


# **Schottky Diodes**



#### **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: TO-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 (Ta=25°C Unless otherwise specified)

| PARAMETER  | SYMBOL           | UNIT             | MBR2060CTS |
|--|------------------|------------------|------------|
| Device marking code  |                  |                  | MBR2060CTS |
| Repetitive Peak Reverse Voltage  | $V_{RRM}$        | V                | 60         |
| Average Rectified Output Current @60Hz sine wave, R-load, Ta=25°C            | Io               | Α                | 20         |
| Surge(Non-repetitive)Forward Current<br>@60Hz half sine-wave,1 cycle, Ta=25℃ | I <sub>FSM</sub> | Α                | 150        |
| Current Squared Time<br>@1ms≤t≤8.3ms Tj=25°C,                                | I <sup>2</sup> t | A <sup>2</sup> s | 94         |
| Storage Temperature  | T <sub>stg</sub> | $^{\circ}$       | -55 ~ +150 |
| Junction Temperature   | Tj               | $^{\circ}$       | -55 ~ +150 |

#### **■Electrical Characteristics** (Ta=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL            | UNIT     | TEST<br>CONDITIONS                           | MBR2060CTS |
|---|-------------------|----------|--|------------|
| Maximum instantaneous forward voltage drop per diode              | $V_{FM}$          | <b>V</b> | I <sub>FM</sub> =10.0A                       | 0.75       |
| 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>Ta=25°C | 0.2        |
|   | I <sub>RRM2</sub> |          | V <sub>RM</sub> =V <sub>RRM</sub><br>Ta=125℃ | 50         |

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

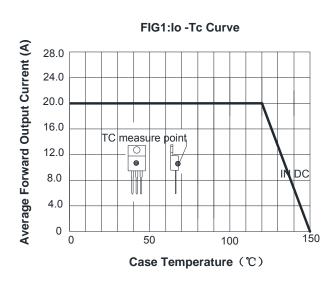
| PARAMETER          |                           | SYMBOL            | UNIT | MBR2060CT |
|--------------------|---------------------------|-------------------|------|-----------|
| Thermal Resistance | Between junction and case | R <sub>θJ-C</sub> | °C/W | 2.0       |



**■Ordering Information** (Example)

| PREFERED P/N | UNIT WEIGHT(g)  | MINIIMUM<br>PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON<br>QUANTITY(pcs) | DELIVERY MODE |
|--------------|-----------------|--------------------------|-------------------------|-------------------------------|---------------|
| MBR2060CTS   | Approximate 1.9 | 50                       | 1000                    | 5000                          | Tube          |

## **■Characteristics** (Typical)



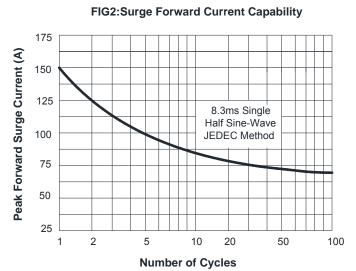
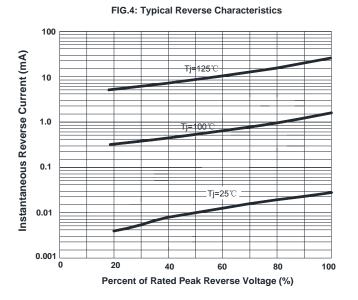
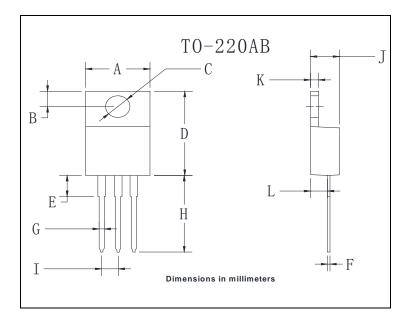


FIG3: Forward Voltage 100 50 Instantaneous Forward Current (A) 20 10 5.0 1.0 0.5 0.2 0.1 0 0.1 0.2 0.3 0.5 0.6 0.7 0.8 1.0 Instantaneous Forward Voltage (V)





## **■**Outline Dimensions



| TO-220AB |       |       |  |  |
|----------|-------|-------|--|--|
| Dim      | Min   | Max   |  |  |
| Α        | 9.5   | 10.9  |  |  |
| В        | 2.22  | 3.27  |  |  |
| С        | 3.34  | 4.31  |  |  |
| D        | 14.5  | 15.5  |  |  |
| E        | 3.16  | 4.46  |  |  |
| F        | 0.28  | 0.64  |  |  |
| G        | 0.68  | 0.94  |  |  |
| Н        | 13.06 | 14.62 |  |  |
| I        | 2.01  | 3.07  |  |  |
| J        | 4.04  | 5.1   |  |  |
| K        | 1.14  | 1.4   |  |  |
| L        | 2.14  | 3.19  |  |  |



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