



# 安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

MBRD2045-MBRD20200

## TO-252 Schottky Barrier Rectifier Diode 肖特基势垒整流二极管

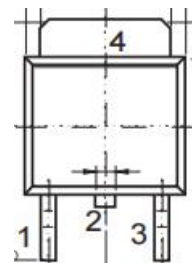
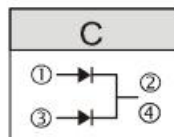
### ■Features 特点

High surge current capability 高浪涌电流能力

Low forward voltage drop 低正向压降

High reliability 高可靠性

Case 封装:TO-252



### ■Maximum Rating 最大额定值

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic 特性参数              | Symbol 符号       | MBRD 2045                          | MBRD 2060 | MBRD 20100 | MBRD 20150 | MBRD 20200 | Unit 单位                     |
|----------------------------------|-----------------|------------------------------------|-----------|------------|------------|------------|-----------------------------|
| Peak Reverse Voltage 反向峰值电压      | $V_{RRM}$       | 45                                 | 60        | 100        | 150        | 200        | V                           |
| DC Reverse Voltage 直流反向电压        | $V_R$           | 45                                 | 60        | 100        | 150        | 200        | V                           |
| RMS Reverse Voltage 反向电压均方根值     | $V_{R(RMS)}$    | 32                                 | 42        | 70         | 105        | 140        | V                           |
| Forward Rectified Current 正向整流电流 | $I_F$           | 20                                 |           |            |            |            | A                           |
| Peak Surge Current 峰值浪涌电流        | $I_{FSM}$       | 175                                |           |            |            |            | A                           |
| Thermal Resistance J-A 结到环境热阻    | $R_{\theta JA}$ | 8                                  |           |            |            |            | $^{\circ}\text{C}/\text{W}$ |
| Junction Temperature 结温          | $T_J$           | 150                                |           |            |            |            | $^{\circ}\text{C}$          |
| Storage Temperature 储藏温度         | $T_{stg}$       | $-55\text{to}+150^{\circ}\text{C}$ |           |            |            |            | $^{\circ}\text{C}$          |

### ■Electrical Characteristics 电特性

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic<br>特性参数  | Symbol<br>符号                   | MBRD<br>2045 | MBRD<br>2060 | MBRD<br>20100 | MBRD<br>20150 | MBRD<br>20200 | Unit<br>单位 | Condition<br>条件                  |
|-------------------------|--------------------------------|--------------|--------------|---------------|---------------|---------------|------------|----------------------------------|
| Forward Voltage 正向电压    | V <sub>F</sub>                 | 0.55         | 0.70         | 0.85          | 0.9           |               | V          | I <sub>F</sub> =20A              |
| Reverse Current 反向电流    | I <sub>R</sub> (25℃)<br>(125℃) | 0.1<br>5     |              | 0.02<br>2     |               |               | mA         | V <sub>R</sub> =V <sub>RRM</sub> |
| Diode Capacitance 二极管电容 | C <sub>D</sub>                 | 500          |              |               |               |               | pF         | V <sub>R</sub> =4V,<br>f=1MHz    |



## ■ Typical Characteristic Curve 典型特性曲线

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

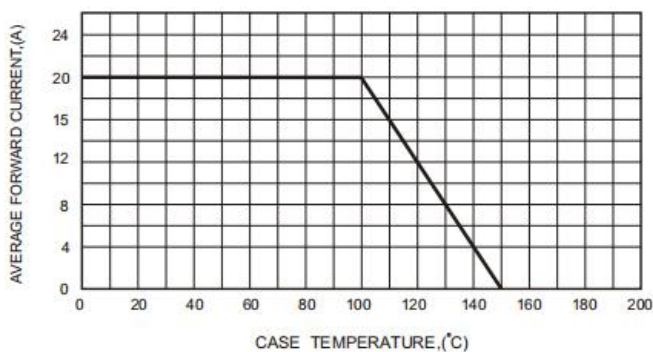


FIG.2-TYPICAL FORWARD CHARACTERISTICS

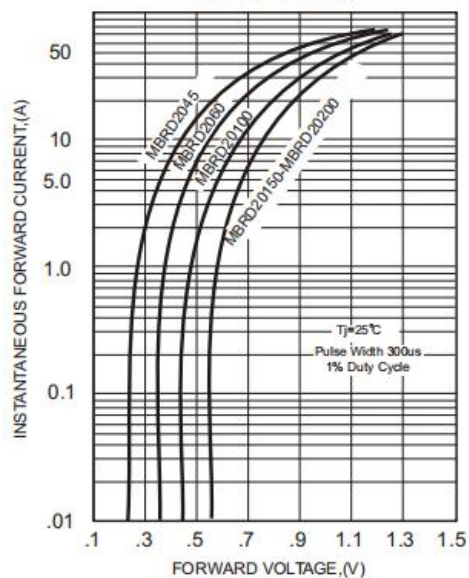


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

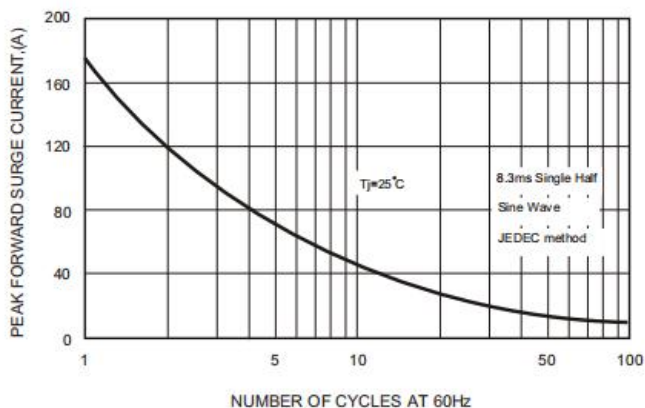


FIG.4-TYPICAL JUNCTION CAPACITANCE

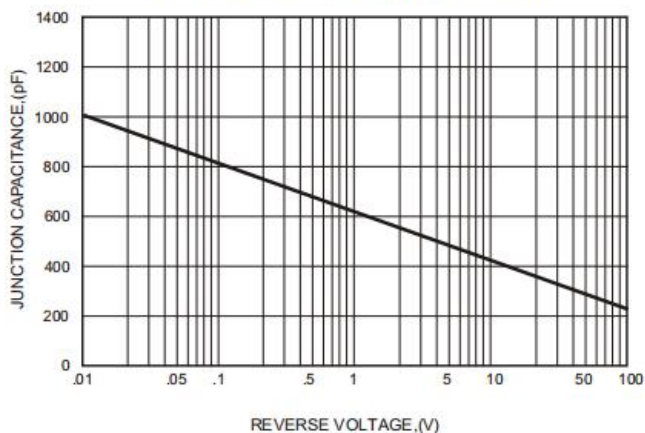
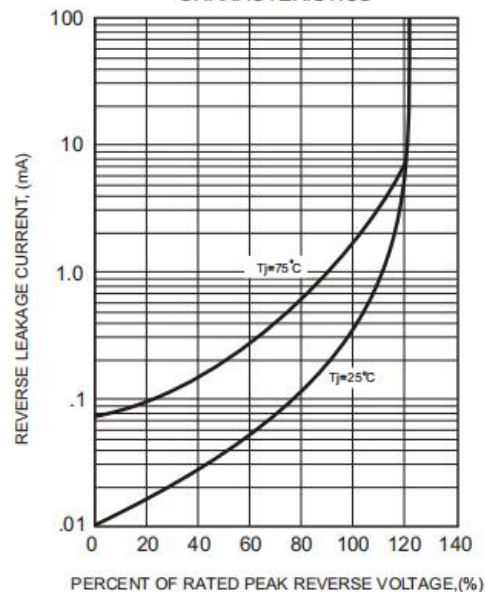


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



■Dimension 外形封装尺寸

TO-252

Unit: mm

