



# HBR2200

## 主要参数 MAIN CHARACTERISTICS

|              |                               |
|--------------|-------------------------------|
| $I_{F(AV)}$  | 2A                            |
| $V_{RRM}$    | 200 V                         |
| $T_j$        | 175 °C                        |
| $V_{F(max)}$ | 0.72V (@ $T_j=125^{\circ}C$ ) |

### 用途

- 低压、高频整流
- 低压续流电路和保护电路

### APPLICATIONS

- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

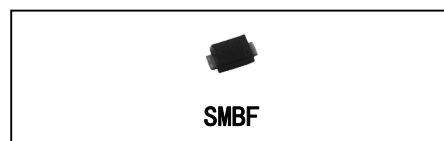
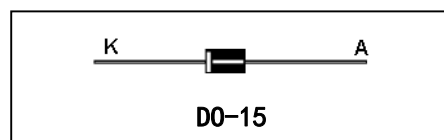
### 产品特性

- 轴向结构
- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保（RoHS）产品

### FEATURES

- Axial Lead Rectifier
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product

## 封装 Package



## 订货信息 ORDER MESSAGE

| 订 货 型 号 Order codes   |                            |                       |                            | 印 记<br>Marking | 封 装<br>Package |
|-----------------------|----------------------------|-----------------------|----------------------------|----------------|----------------|
| 有卤-条管<br>Halogen-Tube | 无卤-条管<br>Halogen Free-Tube | 有卤-编带<br>Halogen-Reel | 无卤-编带<br>Halogen Free-Reel |                |                |
| N/A                   | N/A                        | HBR2200-DB-A          | HBR2200-DB-AR              | HBR2200        | DO-15          |
| N/A                   | N/A                        | HBR2200-XD-A          | HBR2200-XD-AR              | HBR2200        | SMBF           |



**绝对最大额定值 ABSOLUTE RATINGS** ( $T_c=25^{\circ}\text{C}$ )

| 项 目<br>Parameter                                                                                                                | 符 号<br>Symbol | 数 值<br>Value | 单 位<br>Unit        |
|---------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|--------------------|
| 最大反向重复峰值电压<br>Repetitive peak reverse voltage                                                                                   | $V_{RRM}$     | 200          | V                  |
| 最大直流阻断电压<br>Maximum DC blocking voltage                                                                                         | $V_{DC}$      | 200          | V                  |
| 正向平均整流电流 $T_c=125^{\circ}\text{C}$<br>Average Rectified Forward Current                                                         | $I_{F(AV)}$   | 2            | A                  |
| 正向峰值浪涌电流<br>Surge non repetitive forward current<br>(额定负载 8.3ms 半正弦波—按 JEDEC 方法)<br>8.3 ms single half-sine-wave (JEDEC Method) | $I_{FSM}$     | 80           | A                  |
| 最高结温<br>Maximum junction temperature                                                                                            | $T_j$         | 175          | $^{\circ}\text{C}$ |
| 储存温度<br>Storage temperature range                                                                                               | $T_{STG}$     | -40~+150     | $^{\circ}\text{C}$ |

**电特性 ELECTRICAL CHARACTERISTICS**

| 项 目<br>Parameter | 测试条件<br>Tests conditions    |                   | 最小值<br>Value(min) | 典型值<br>Value(typ) | 最大值<br>Value(max) | 单位<br>Unit    |
|------------------|-----------------------------|-------------------|-------------------|-------------------|-------------------|---------------|
| $I_R$            | $T_j = 25^{\circ}\text{C}$  | $V_R = V_{RRM}$   |                   |                   | 10                | $\mu\text{A}$ |
|                  | $T_j = 125^{\circ}\text{C}$ |                   |                   |                   | 5                 | mA            |
| $V_F$            | $T_j = 25^{\circ}\text{C}$  | $I_F = 2\text{A}$ |                   | 0.78              | 0.85              | V             |
|                  | $T_j = 125^{\circ}\text{C}$ |                   |                   | 0.68              | 0.72              | V             |
|                  | $T_j = 25^{\circ}\text{C}$  | $I_F = 3\text{A}$ |                   | 0.82              | 0.92              | V             |
|                  | $T_j = 125^{\circ}\text{C}$ |                   |                   | 0.72              | 0.75              | V             |

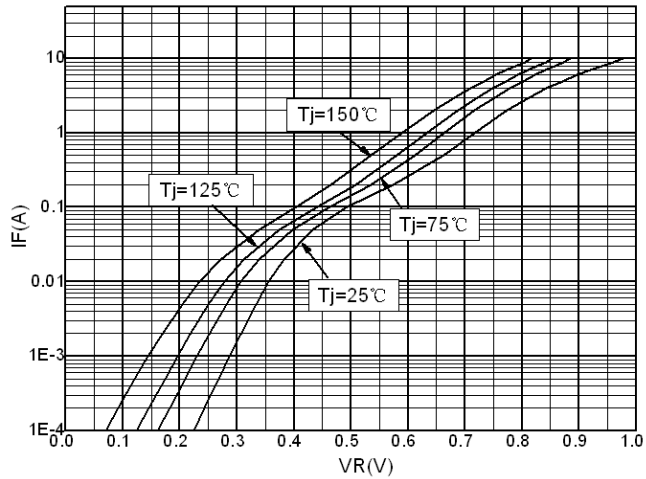
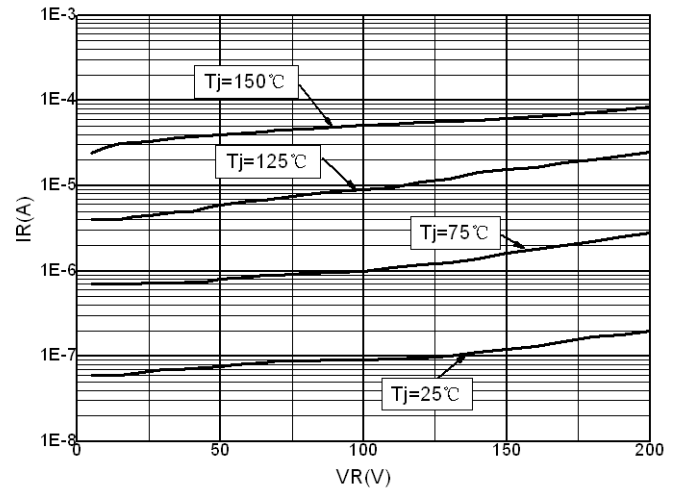
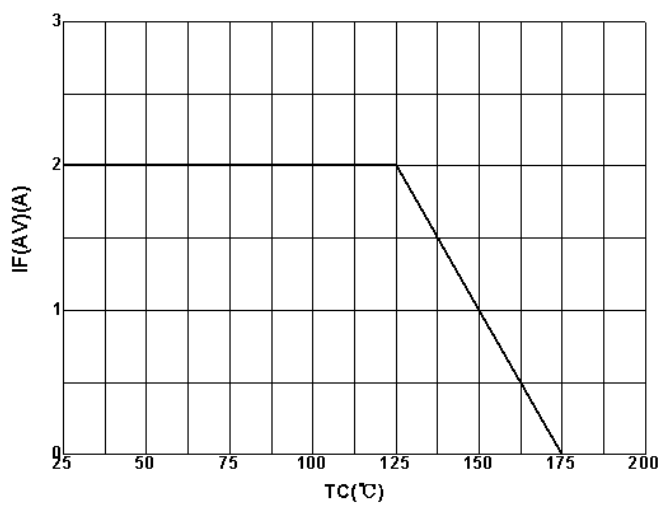
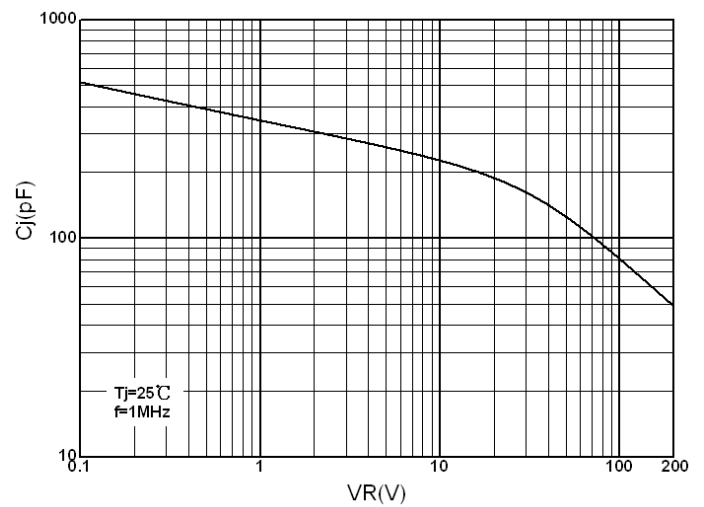
**热特性 THERMAL CHARACTERISTICS**

| 项 目<br>Parameter                                          | 符 号<br>Symbol | 最小值<br>Value(min) | 最大值<br>Value(max) | 单 位<br>Unit          |
|-----------------------------------------------------------|---------------|-------------------|-------------------|----------------------|
| 结到管壳的热阻<br>Thermal resistance from<br>junction to Ambient | $R_{th(j-a)}$ |                   | 35<br>140         | $^{\circ}\text{C/W}$ |





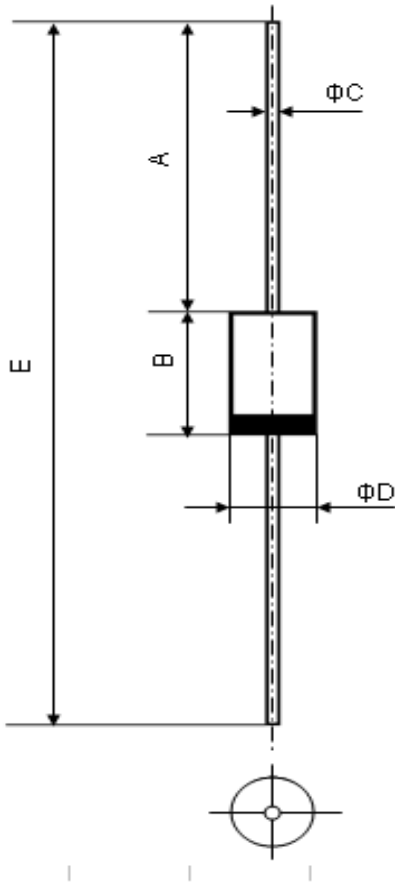
## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

 $I_F$  vs  $V_F$  $I_R$  vs  $V_R$  $I_F(AV)$  vs  $T_C$  $C_J$  vs  $V_R$ 



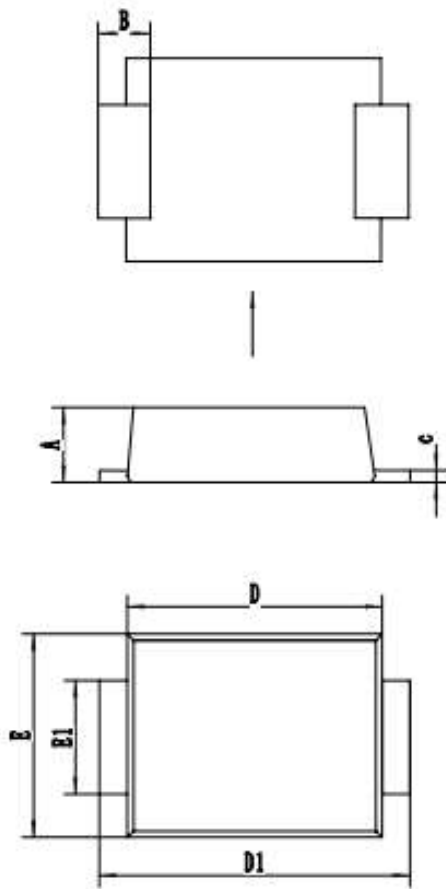
外形尺寸 PACKAGE MECHANICAL DATA  
DO-15

单位 Unit : mm



| 符号<br>symbol | Min  | Max |
|--------------|------|-----|
| A            | 25.4 | --  |
| B            | 5.8  | 7.6 |
| C            | 0.7  | 0.9 |
| D            | 2.6  | 3.6 |





| 符号<br>symbol | Min  | Max  |
|--------------|------|------|
| A            | 1.10 | 1.30 |
| B            | 0.80 | 1.10 |
| C            | 0.15 | 0.25 |
| D            | 4.3  | 4.7  |
| D1           | 5.3  | 5.7  |
| E            | 3.4  | 3.8  |
| E1           | 1.90 | 2.10 |





## 注意事项

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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

## NOTE

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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