



# HBR5250

## 主要参数 MAIN CHARACTERISTICS

|              |                               |
|--------------|-------------------------------|
| $I_{F(AV)}$  | 5A                            |
| $V_{RRM}$    | 250 V                         |
| $T_j$        | 175 °C                        |
| $V_{F(max)}$ | 0.75V (@ $T_j=125^{\circ}C$ ) |

### 用途

- 低压、高频整流
- 低压续流电路和保护电路

### 产品特性

- 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

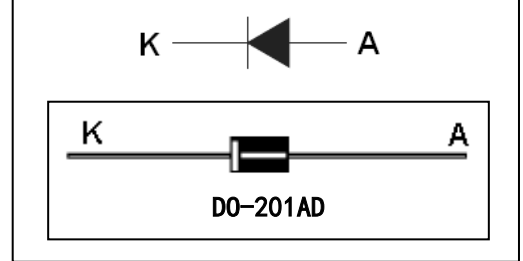
### APPLICATIONS

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

### FEATURES

- 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                        | HBR5250-D-A           | HBR5250-D-AR               | HBR5250       | DO-201AD      |



**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   | $V_{RRM}$     | 250          | V                |
| 最大直流阻断电压<br>Maximum DC blocking voltage   | $V_{DC}$      | 250          | V                |
| 正向平均整流电流 $T_c=125^\circ\text{C}$<br>Average Rectified Forward Current                                 | $I_{F(AV)}$   | 5            | A                |
| 正向峰值浪涌电流<br>Surge non repetitive forward current<br>(额定负载 10ms 半正弦波—按)<br>10 ms single half-sine-wave | $I_{FSM}$     | 120          | 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~+175     | $^\circ\text{C}$ |

**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            |
| $V_F$            | $T_j=25^\circ\text{C}$               | $I_F=5\text{A}$ |                   | 0.81              | 0.85              | V             |
|                  | $T_j=125^\circ\text{C}$              |                 |                   | 0.70              | 0.75              | V             |
| $C_j$            | $F=1\text{MHz}, V_{R(OC)}=4\text{V}$ |                 |                   | 85                | 180               | pF            |

**热特性 THERMAL CHARACTERISTICS**

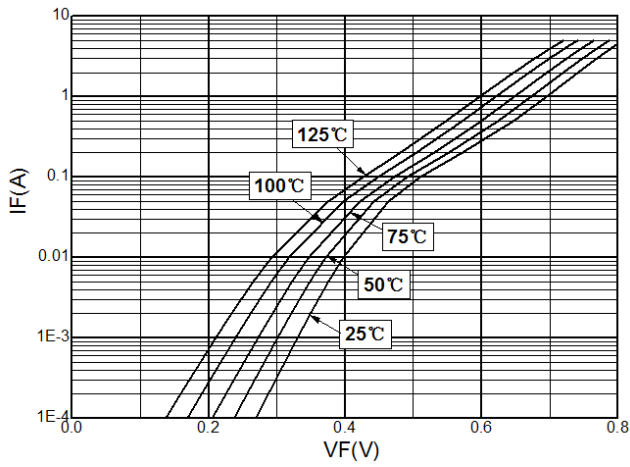
| 项 目<br>Parameter  |          | 符 号<br>Symbol | 最小值<br>Value(min) | 最大值<br>Value(max) | 单 位<br>Unit        |
|---|----------|---------------|-------------------|-------------------|--------------------|
| 结到管壳的热阻<br>Thermal resistance from<br>junction to case    | DO-201AD | $R_{th(j-c)}$ |                   | 25                | $^\circ\text{C/W}$ |
| 结到环境的热阻<br>Thermal resistance from<br>junction to ambient | DO-201AD | $R_{th(j-a)}$ |                   | 70                | $^\circ\text{C/W}$ |



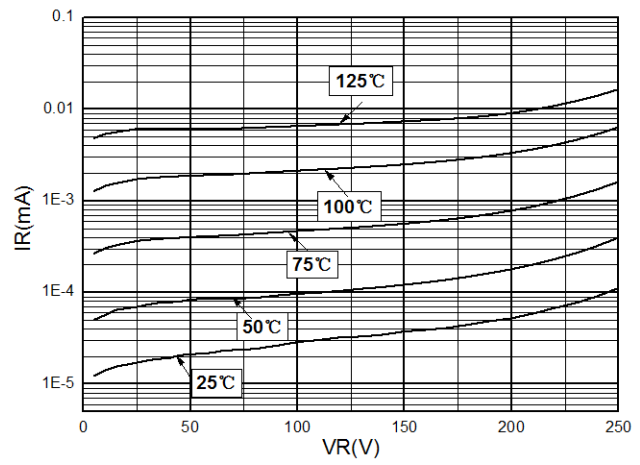


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

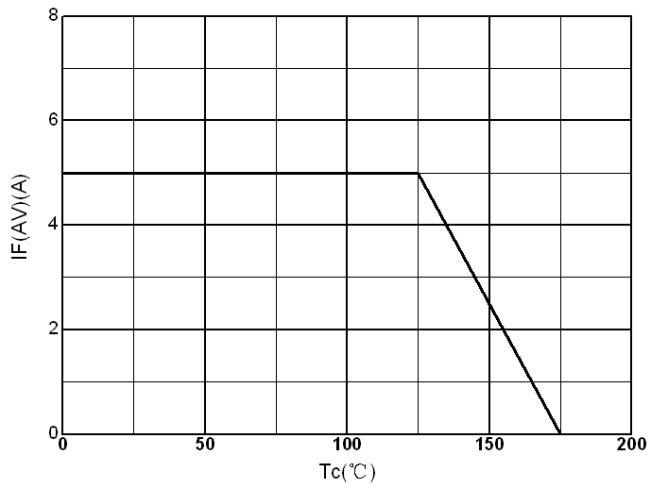
IF vs VF



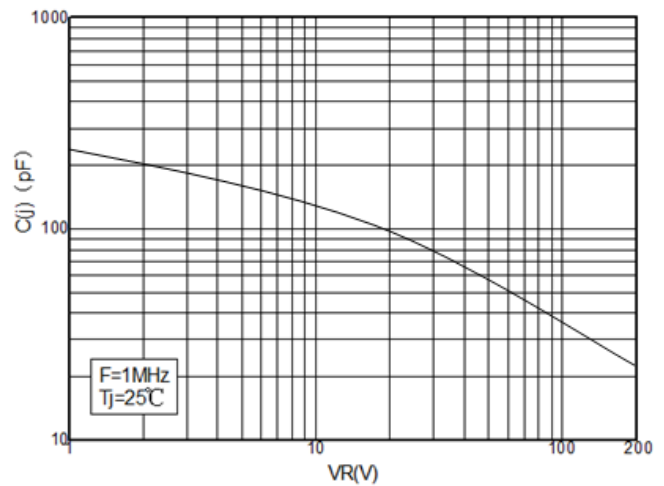
IR vs VR

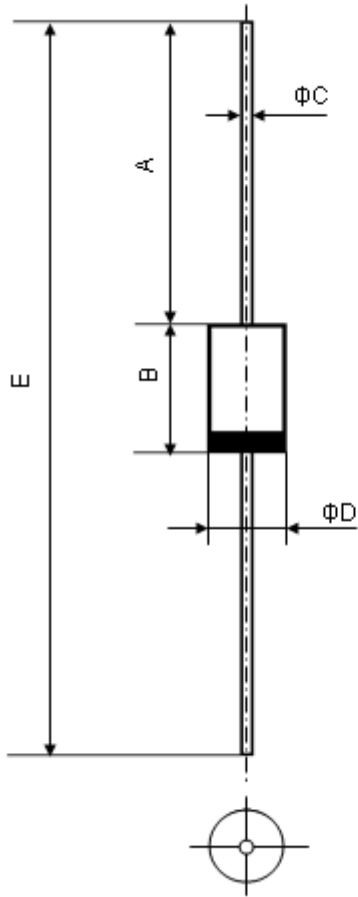


IF(AV) vs Tc



CJ vs VR





| 符号<br>Symbol | Min  | Max |
|--------------|------|-----|
| A            | 25.4 | --  |
| B            | 8.5  | 9.5 |
| C            | 1.2  | 1.3 |
| D            | 5.0  | 5.6 |
| E            | 59.5 | 64  |





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- 2.购买时请认清公司商标,如有疑问请与公司本部联系。
- 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

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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