



FEATURES

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

APPLICATIONS

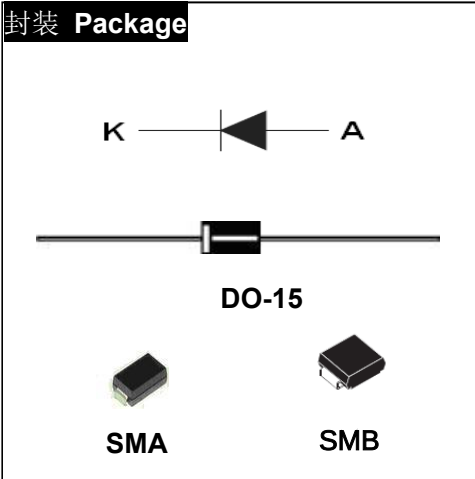
- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

产品特性

- 轴向、贴片结构
- 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

用途

- 低压、高频整流
- 低压续流电路和保护电路



主要参数 MAIN CHARACTERISTICS

|              |                               |
|--------------|-------------------------------|
| $I_{F(AV)}$  | 2A                            |
| $V_{RRM}$    | 100 V                         |
| $T_j$        | 150℃                          |
| $V_{F(max)}$ | 0.57V (@ $T_j=125^{\circ}C$ ) |

产品型号信息PRODUCTMESSAGE

| 型号Model  | 印记Marking | 封装Package |
|----------|-----------|-----------|
| MBR2100L | MBR2100L  | DO-15     |
| SS210L   | SS210L    | SMA/SMB   |
|          |           |           |



**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                                                                                   | $V_{RRM}$     | 100          | V                  |
| 最大直流阻断电压<br>Maximum DC blocking voltage                                                                                         | $V_{DC}$      | 100          | 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) | $I_{FSM}$     | 50           | A                  |
| 最高结温<br>Maximum junction temperature                                                                                            | $T_j$         | 150          | $^{\circ}\text{C}$ |
| 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            |
| $V_F$            | $T_j = 25^{\circ}\text{C}$  | $I_F = 2\text{A}$ |                   | 0.62              | 0.65              | V             |
|                  | $T_j = 125^{\circ}\text{C}$ |                   |                   | 0.57              |                   | V             |

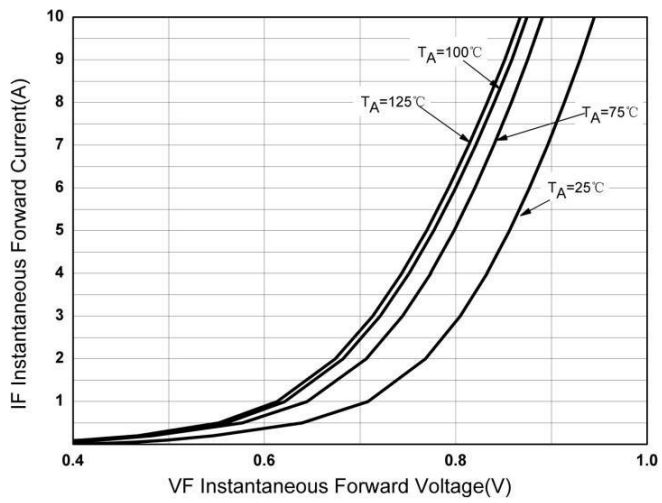
**热特性 THERMAL CHARACTERISTICS**

| 项 目<br>Parameter                                          |                | 符 号<br>Symbol | 最小值<br>Value(min) | 最大值<br>Value(max) | 单 位<br>Unit          |
|-----------------------------------------------------------|----------------|---------------|-------------------|-------------------|----------------------|
| 结到环境的热阻<br>Thermal resistance from<br>junction to ambient | DO-15<br>SMA/B | $R_{th(j-a)}$ |                   | 85<br>150         | $^{\circ}\text{C/W}$ |
| 结到管壳的热阻<br>Thermal resistance from<br>junction to case    | DO-15<br>SMA/B | $R_{th(j-c)}$ |                   | 40<br>50          | $^{\circ}\text{C/W}$ |

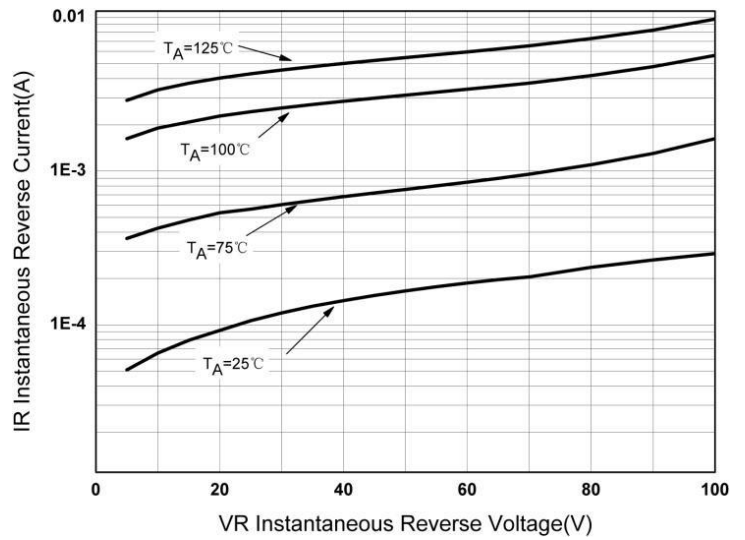


## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

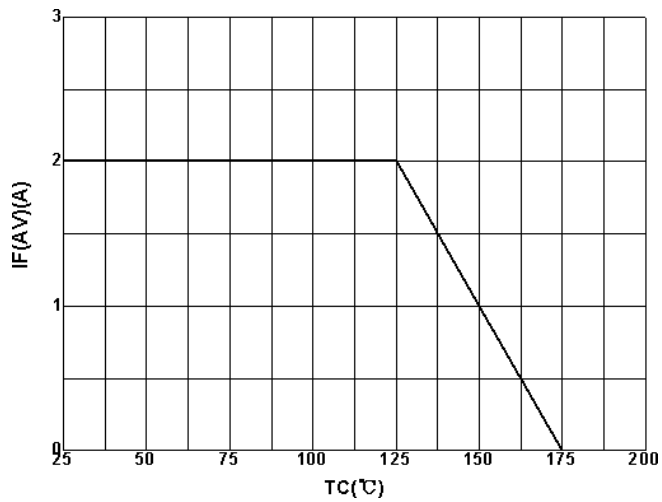
$I_F$  vs  $V_F$



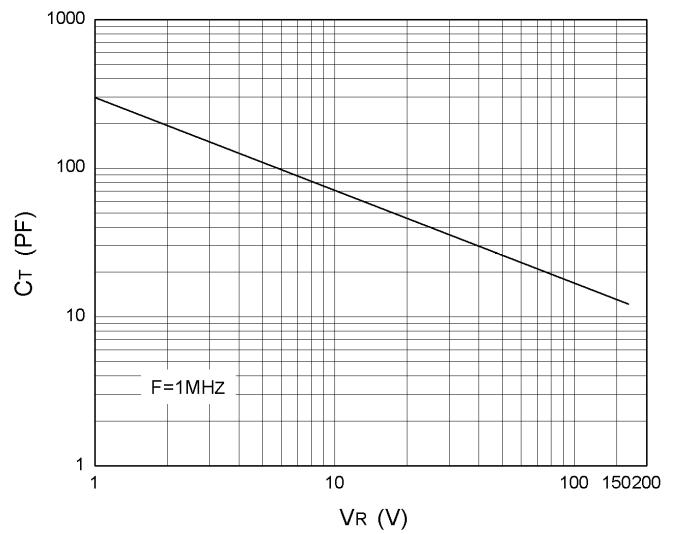
$I_R$  vs  $V_R$



$I_F(AV)$  vs  $T_C$



$C_J$  vs  $V_R$

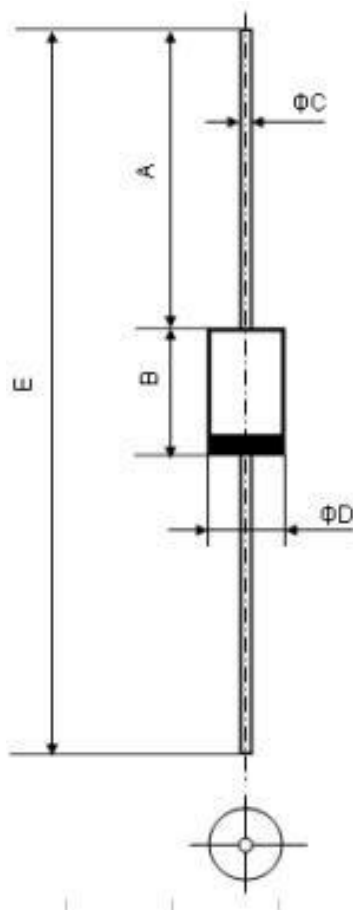




外形尺寸 PACKAGE MECHANICAL DATA

DO-15

单位 Unit : mm



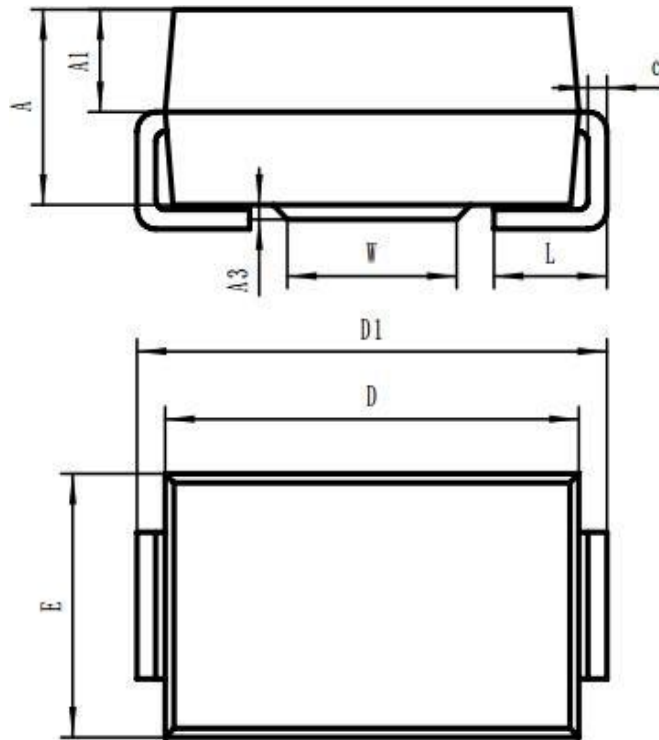
| 符号<br>symbol | Min  | Max |
|--------------|------|-----|
| A            | 25.4 | —   |
| B            | 5.8  | 7.6 |
| C            | 0.7  | 0.9 |
| D            | 2.6  | 3.6 |



外形尺寸 PACKAGE MECHANICAL DATA

**SMA**

单位 Unit : mm



| SYMBOL | MIN  | MAX  |
|--------|------|------|
| A      | 1.80 | 2.20 |
| A1     | 0.85 | 1.25 |
| A2     | 1.90 | 2.60 |
| A3     | 0.10 | 0.20 |
| B      | 1.30 | 1.70 |
| c      | 0.15 | 0.25 |
| D      | 4.20 | 4.65 |
| D1     | 4.70 | 5.30 |
| E      | 2.50 | 2.90 |
| L      | 0.85 | 1.55 |
| W      | 1.60 | 2.00 |



#### 注意事项

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#### NOTE

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