

**描述 / Descriptions**

SOD-323 塑封封装肖特基二极管。

Schottky Diode in a SOD-323 Plastic Package.

**特征 / Features**

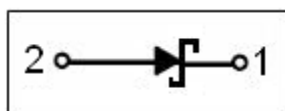
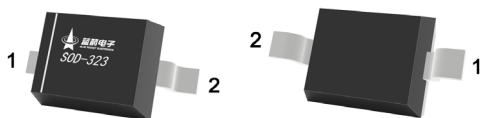
低正向压降，符合 AEC-Q101 标准高可靠性要求，无卤产品。

Low positive pressure drop, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

**用途 / Applications**

一般用途，满足汽车应用的严格要求。

General purpose, Meet the stringent requirements of automotive applications.

**内部等效电路 / Equivalent Circuit****引脚排列 / Pinning**

PIN1:Cathode

PIN2:Anode

**印章代码 / Marking**

|         |            |            |            |
|---------|------------|------------|------------|
| Model   | BRB5817WSQ | BRB5818WSQ | BRB5819WSQ |
| Marking | QSJ        | QSK        | QSL        |

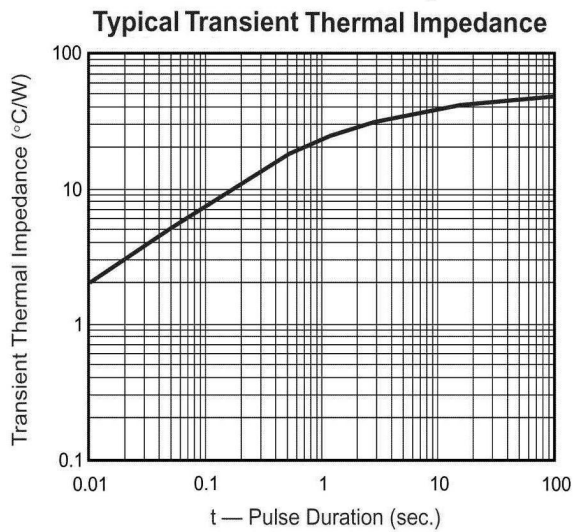
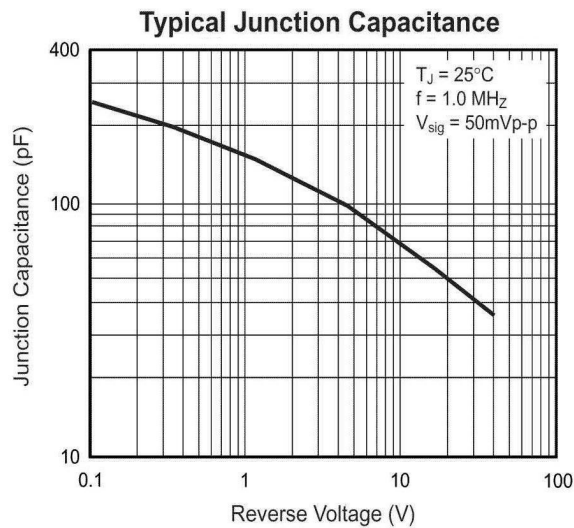
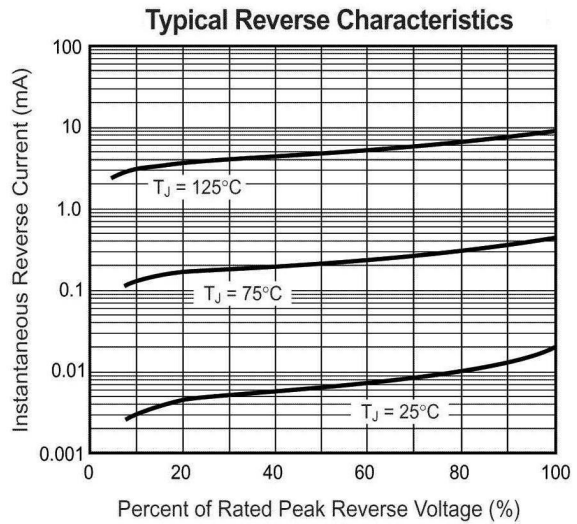
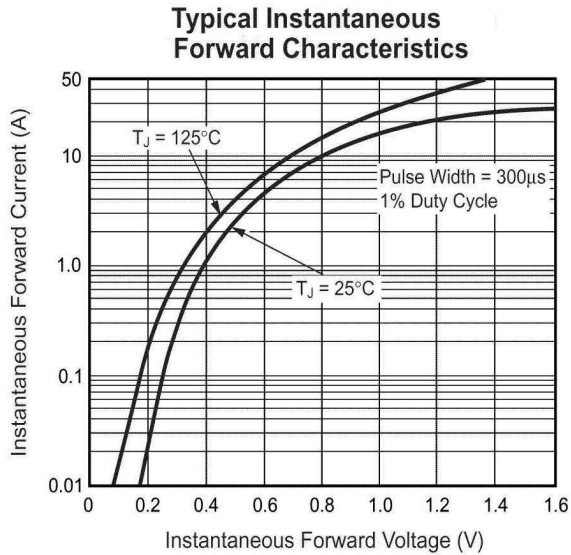
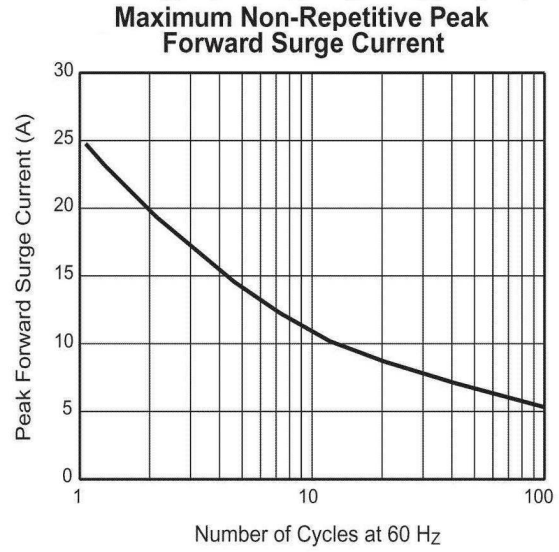
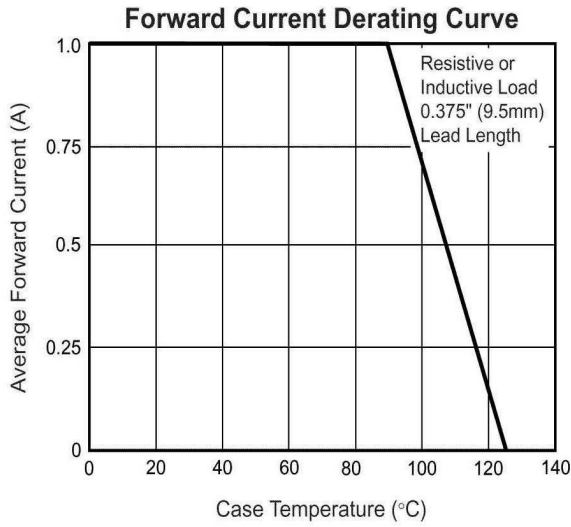

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter                                                                          | 符号<br>Symbol                    | 数值<br>Rating |            |            | 单位<br>Unit |
|------------------------------------------------------------------------------------------|---------------------------------|--------------|------------|------------|------------|
|                                                                                          |                                 | BRB5817WSQ   | BRB5818WSQ | BRB5819WSQ |            |
| Peak Repetitive Reverse Voltage ,<br>Working Peak Reverse Voltage,<br>DC Reverse Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 20           | 30         | 40         | V          |
| RMS Reverse Voltage                                                                      | $V_{R(RMS)}$                    | 14           | 21         | 28         | V          |
| Average Rectified Forward Current                                                        | $I_F$                           | 1            |            |            | A          |
| Non-Repetitive Peak Forward Surge Current                                                | $I_{FSM}$                       | 25           |            |            | A          |
| Power Dissipation                                                                        | $P_d$                           | 200          |            |            | mW         |
| Typical Thermal Resistance<br>Junction to Ambient                                        | $R_{\theta JA}$                 | 500          |            |            | °C/W       |
| Junction and Storage Temperature Range                                                   | $T_J, T_{stg}$                  | -65 to 125   |            |            | °C         |

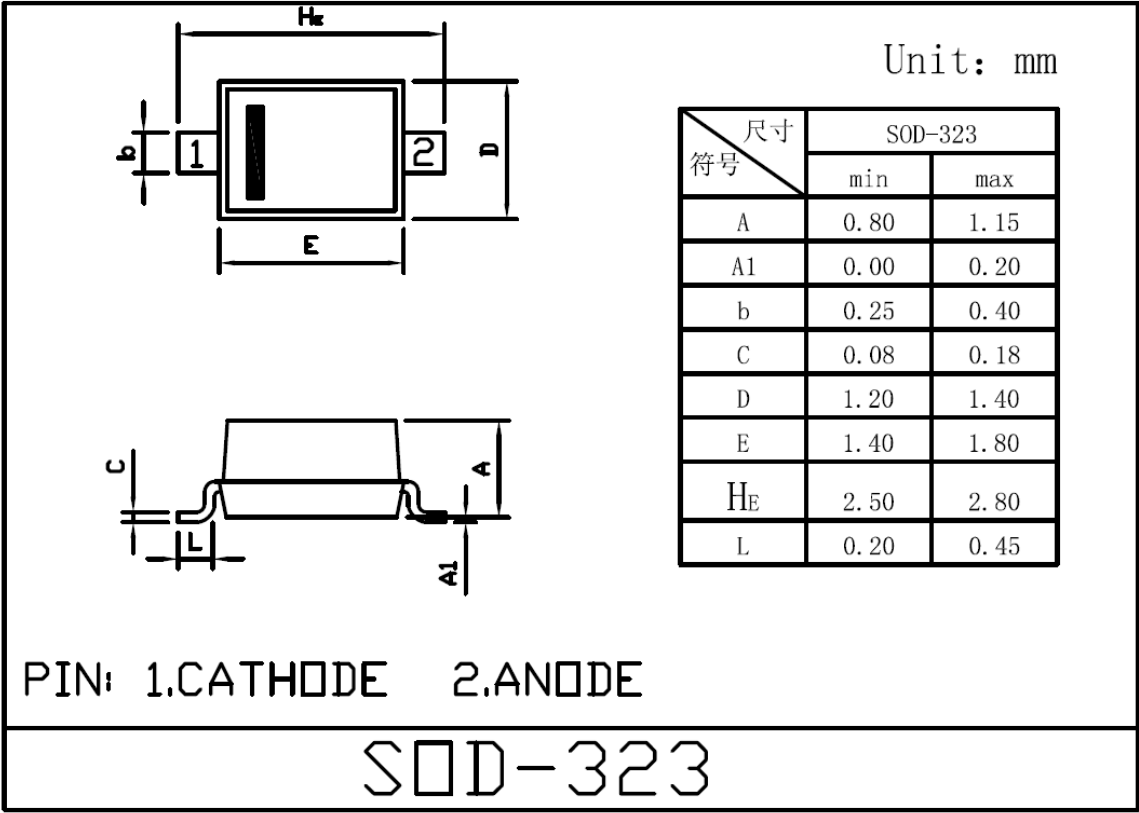
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 参数<br>Parameter               | 符号<br>Symbol | 测试条件<br>Test Conditions    |            | 数值<br>Rating |       | 单位<br>Unit |
|-------------------------------|--------------|----------------------------|------------|--------------|-------|------------|
|                               |              |                            |            | MIN          | MAX   |            |
| Reverse breakdown voltage     | $V_{(BR)}$   | $I_R=1mA$                  | BRB5817WSQ | 20           |       | V          |
|                               |              |                            | BRB5818WSQ | 30           |       |            |
|                               |              |                            | BRB5819WSQ | 40           |       |            |
| Peak Forward Voltage          | $V_{FM}$     | $I_F=0.1A$                 | BRB5817WSQ |              | 0.32  | V          |
|                               |              |                            | BRB5818WSQ |              | 0.35  |            |
|                               |              |                            | BRB5819WSQ |              | 0.4   |            |
|                               |              | $I_F=1A$                   | BRB5817WSQ |              | 0.45  |            |
|                               |              |                            | BRB5818WSQ |              | 0.55  |            |
|                               |              |                            | BRB5819WSQ |              | 0.60  |            |
|                               |              | $I_F=3A$<br>( $t<5\mu s$ ) | BRB5817WSQ |              | 0.75  |            |
|                               |              |                            | BRB5818WSQ |              | 0.875 |            |
|                               |              |                            | BRB5819WSQ |              | 0.90  |            |
| Instantaneous Reverse Current | $I_{RM}$     | $V_R=V_{RWM}$              |            | 1            |       | mA         |
| Junction Capacitance          | $C_J$        | $V_R=4V$ $f=1.0MHz$        |            | 120          |       | pF         |

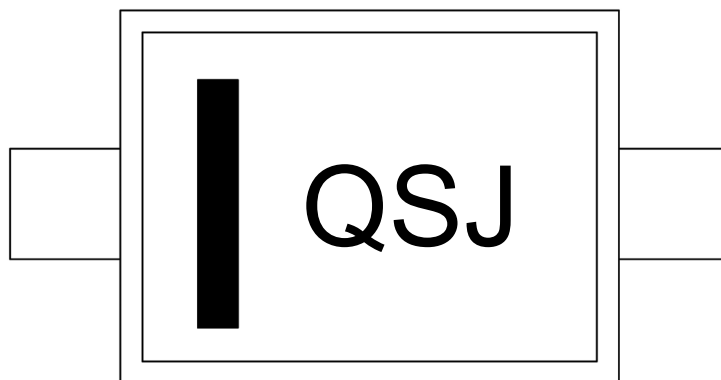
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

Q： 为汽车无卤产品标识

SJ： 为型号代码

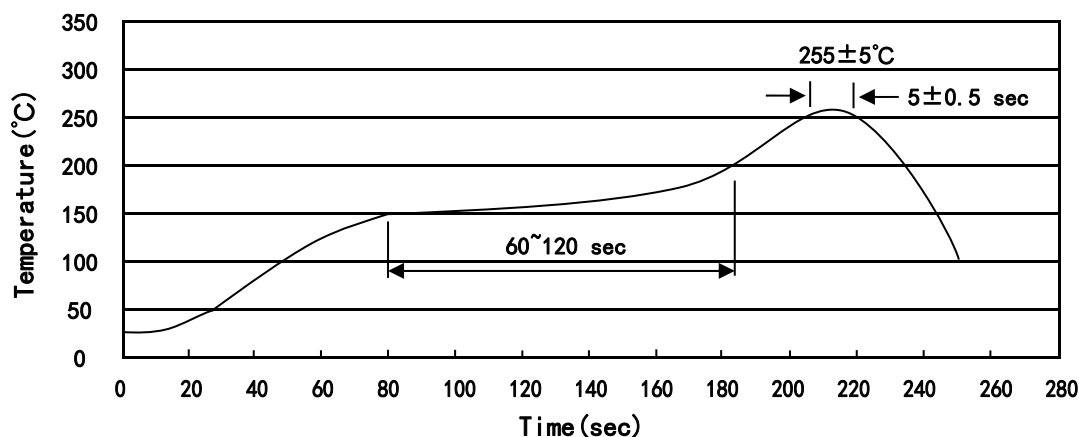
Note:

Q: Automobile halogen-free product Code

SJ: Product Type



## 回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150 ~ 200°C，时间 60 ~ 120sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

## 耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

## 包装规格 / Packaging SPEC.

卷盘包装 / REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| SOD-323              | 3,000              | 10                      | 30,000                 | 6                            | 180,000                | 7" ×8                                   | 180×120×180 | 390×385×205 |

## 使用说明 / Notices