

/ Descriptions

SOD-123  
Schottky Diode in a SOD-123 Plastic Package.

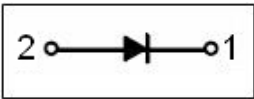
/ Features

Low positive pressure drop, can ignore the reverse recovery time, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

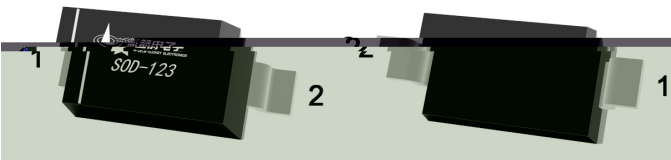
/ Applications

General purpose, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



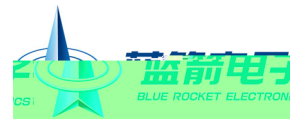
PIN1:Cathode      PIN2:Anode

/ Marking

|         |            |            |            |
|---------|------------|------------|------------|
| Model   | BRSD103AWQ | BRSD103BWQ | BRSD103CWQ |
| Marking | QS4        | QS5        | QS6        |

# BRSD103AWQ/BWQ/CWQ

Rev.A Nov.-2024

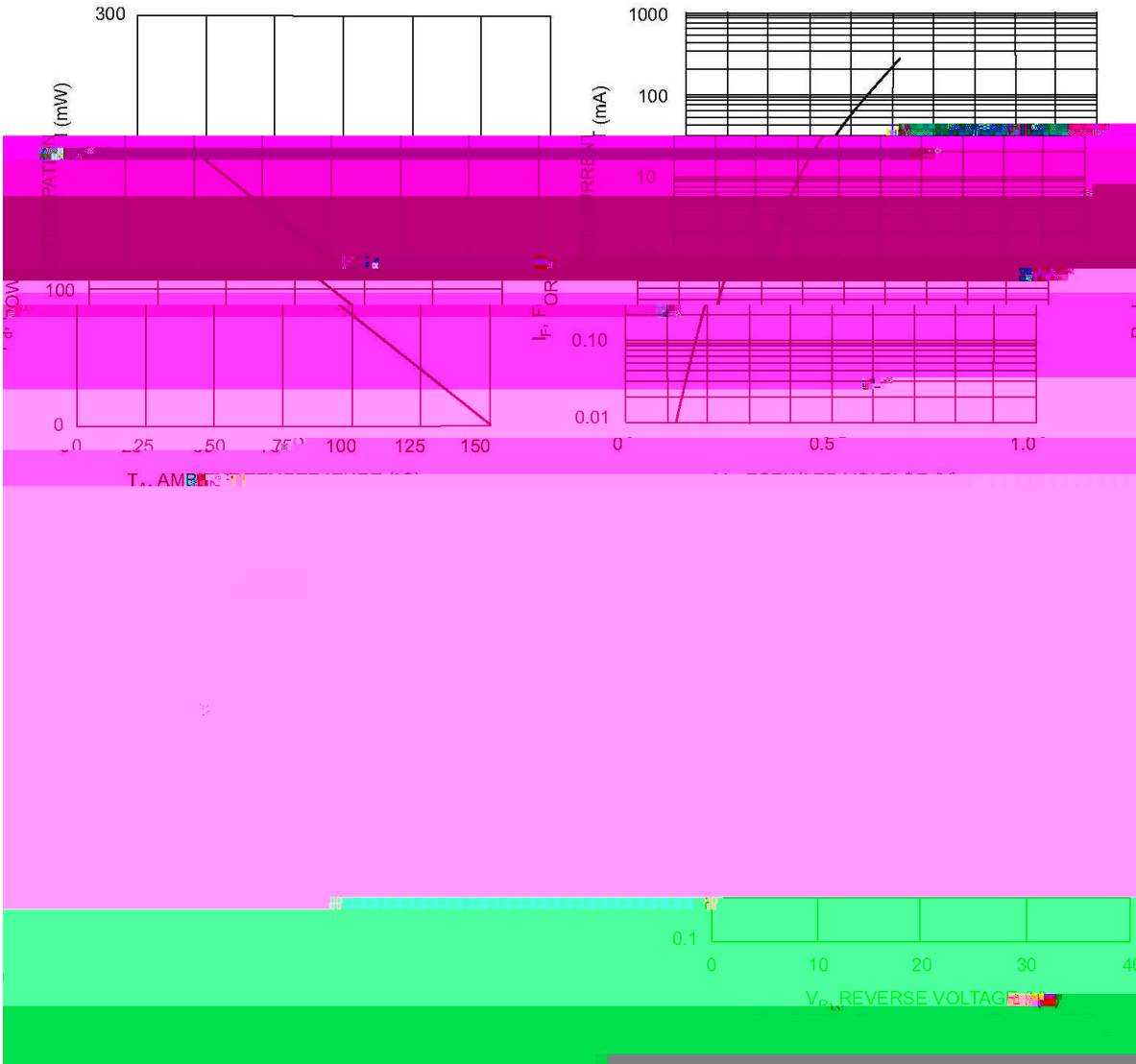


## DATA SHEET

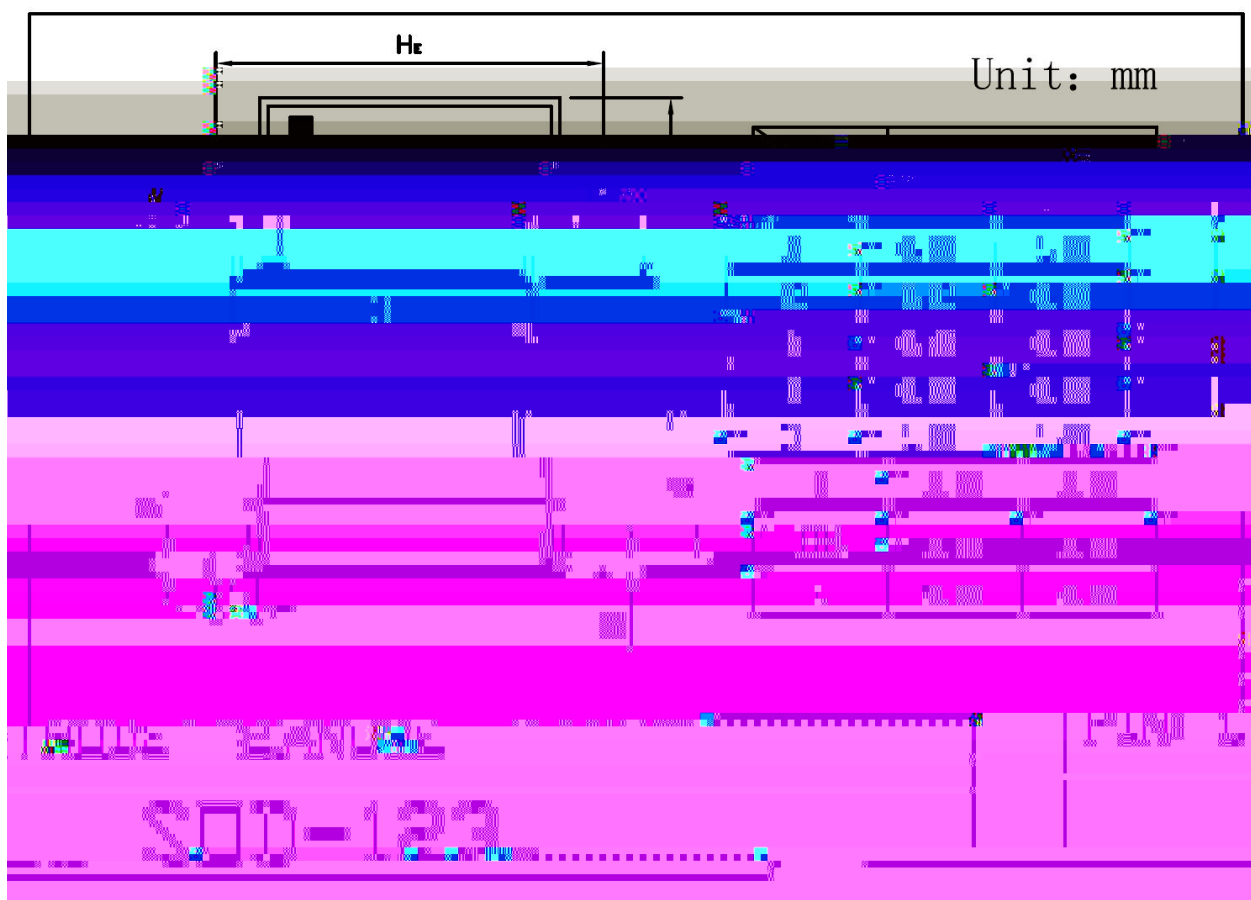
| Parameter                                                                             | Symbol                          | Rating     |            |            | Unit |
|---------------------------------------------------------------------------------------|---------------------------------|------------|------------|------------|------|
|                                                                                       |                                 | BRSD103AWQ | BRSD103BWQ | BRSD103CWQ |      |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Reverse Voltage | $V_R$<br>$V_{RRM}$<br>$V_{RWM}$ | 40         | 30         | 20         | V    |
| RMS Reverse Voltage                                                                   | $V_{R(RMS)}$                    | 28         | 21         | 14         | V    |
| Non-Repetitive Peak Forward Current                                                   | $I_{FM}$                        | 350        |            |            | mA   |
| Non-Repetitive Peak Forward Surge Current                                             | $I_{FSM}$                       | 1.5        |            |            | A    |
| Power Dissipation                                                                     | $P_D$                           | 400        |            |            | mW   |
| Typical Thermal Resistance<br>Junction to Ambient                                     | $R_{\theta JA}$                 | 300        |            |            | /W   |
| Junction and Storage Temperature Range                                                | $T_j, T_{STG}$                  | -65 125    |            |            |      |

| Parameter                 |            | Symbol      | Test Conditions | Min   | Typ | Max  | Unit    |
|---------------------------|------------|-------------|-----------------|-------|-----|------|---------|
| Forward Breakdown Voltage |            | $V_{(BR)R}$ | $I_R=100\mu A$  | $V_R$ |     |      | V       |
| Peak Forward Voltage      |            | $V_{FM}$    | $I_F=20mA$      |       |     | 0.37 |         |
|                           |            |             | $I_F=200mA$     |       |     | 0.6  |         |
| Peak Reverse Current      | BRSD103AWQ | $I_{RM}$    | $V_R=30V$       |       |     |      | $\mu A$ |
|                           | BRSD103BWQ |             | $V_R=20V$       |       |     | 5    |         |

/ Electrical Characteristic Curve



/ Package Dimensions



## / Marking Instructions

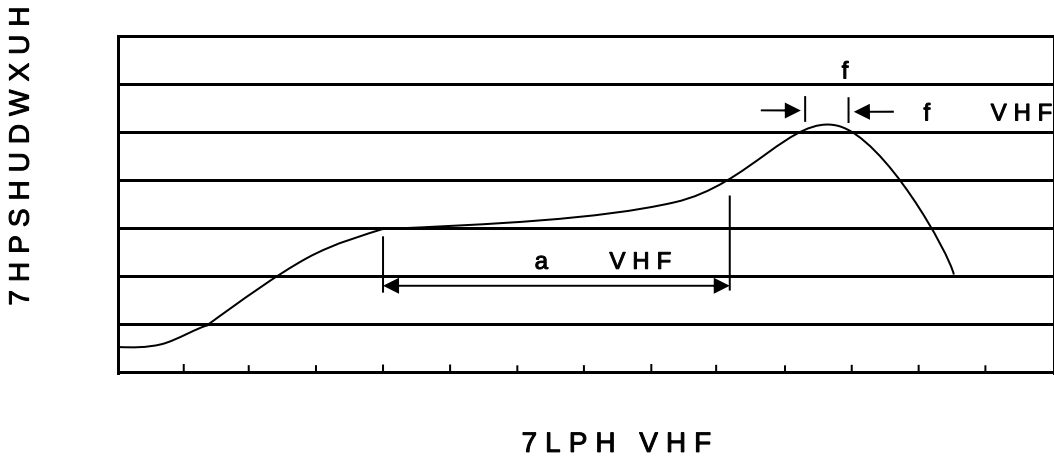


Note:

Q: Automobile halogen-free product Code

S5: Product Type Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255 5

5 0.5sec;

2.Peak Temp.:255 5 , Duration:5 0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type<br>7E | Units :# |    |        |   |         | Dimension :#. |             |             | (unit/Emm³) |
|--------------------|----------|----|--------|---|---------|---------------|-------------|-------------|-------------|
|                    | □        | □  | □      | □ | □       | □             | □           | □           |             |
| SOD-123            | 3,000    | 10 | 30,000 | 6 | 180,000 | 7s ×8         | 180×120×180 | 390×385×205 |             |

/ Notices