

/ Descriptions

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

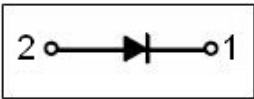
/ Features

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

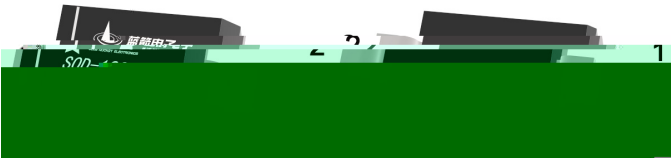
/ Applications

General purpose, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1:Cathode      PIN2:Anode

/ Marking

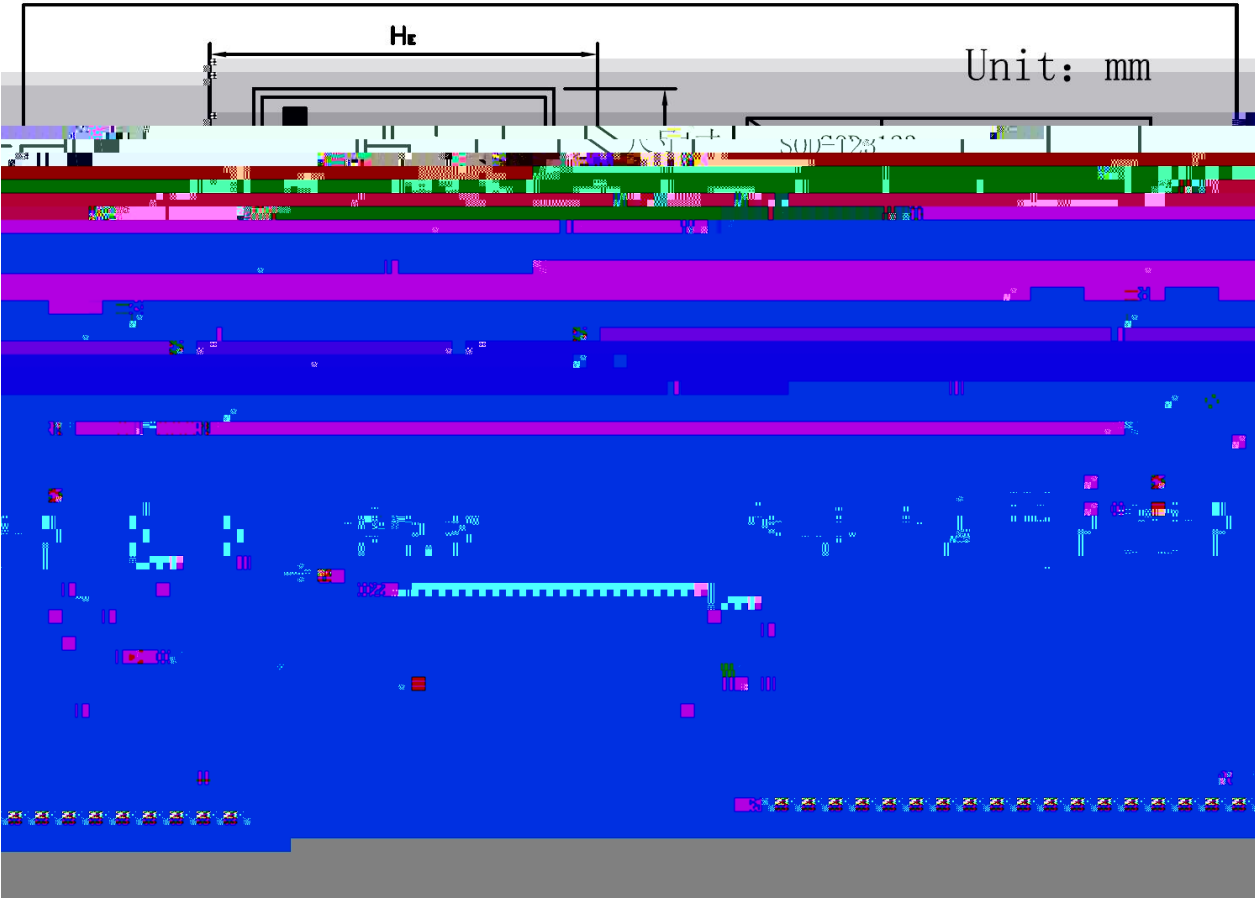
|         |            |            |            |
|---------|------------|------------|------------|
| Model   | BRSD103AWQ | BRSD103BWQ | BRSD103CWQ |
| Marking | QS4        | QS5        | QS6        |

| 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 <sub>(BR)R</sub> | I <sub>R</sub> =100μA | VR  |     |      | V    |
| Peak Forward Voltage      |            | V <sub>FM</sub>    | I <sub>F</sub> =20mA  |     |     | 0.37 |      |
|                           |            |                    | I <sub>F</sub> =200mA |     |     | 0.6  |      |
| Peak Reverse Current      | BRSD103AWQ | I <sub>RM</sub>    | V <sub>R</sub> =30V   |     |     |      |      |
|                           | BRSD103BWQ |                    | V <sub>R</sub> =20V   |     |     | 5    | μA   |

**BRSD103AWQ/BWQ/CWQ**

/ Package Dimensions





## / Marking Instructions



Q

S5

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.