

## / Descriptions

SOD-123

Schottky Diode in a SOD-123 Plastic Package.

## / Features

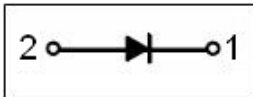
AEC-Q101

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

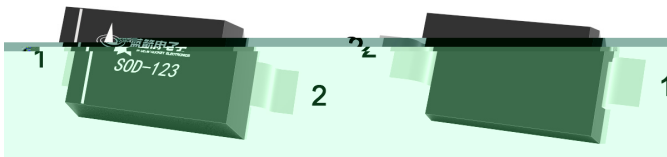
## / Applications

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        |

# BRSD103AWQ/BWQ/CWQ

Rev.A Nov.-2024

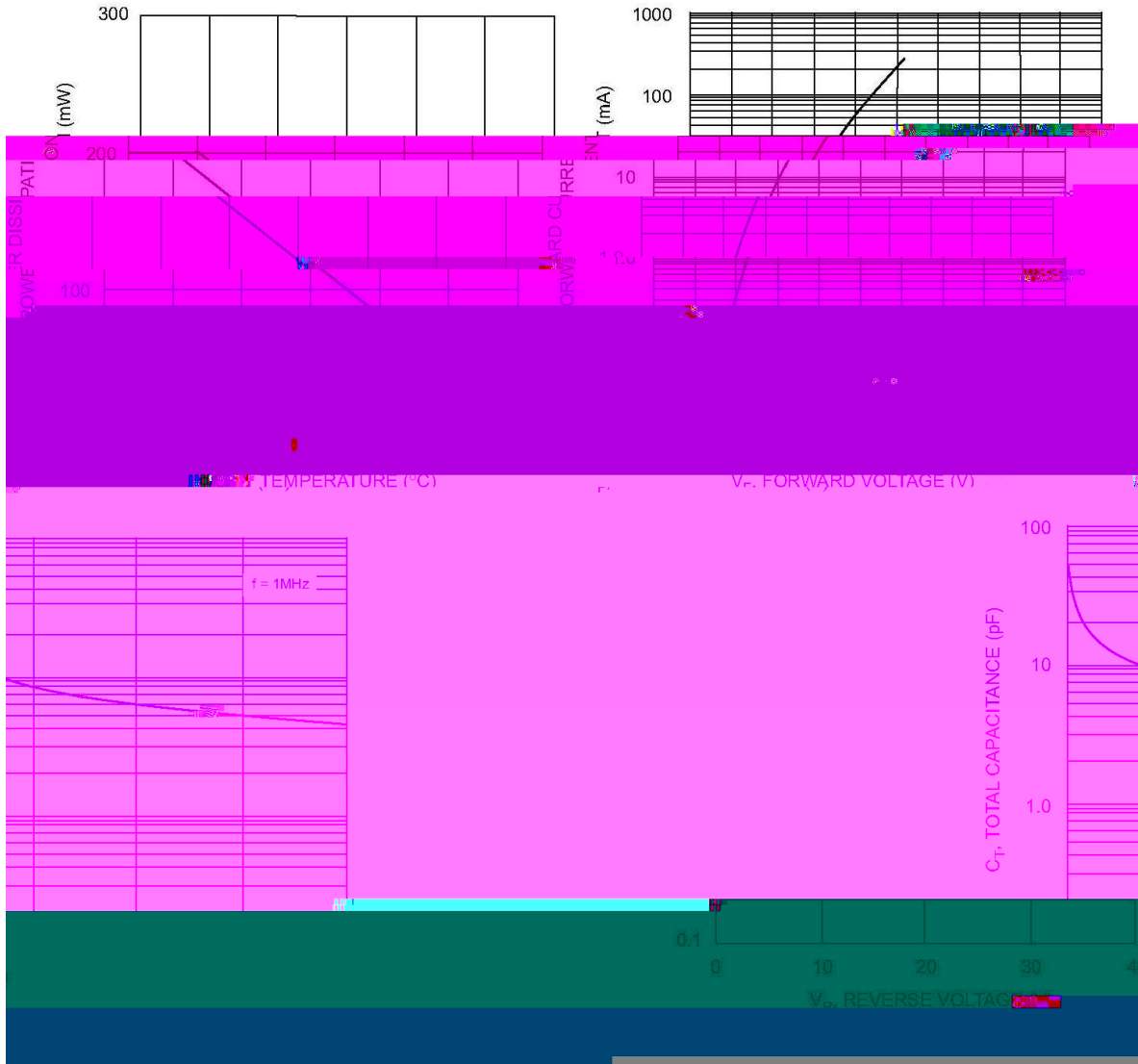


DATA SHEET

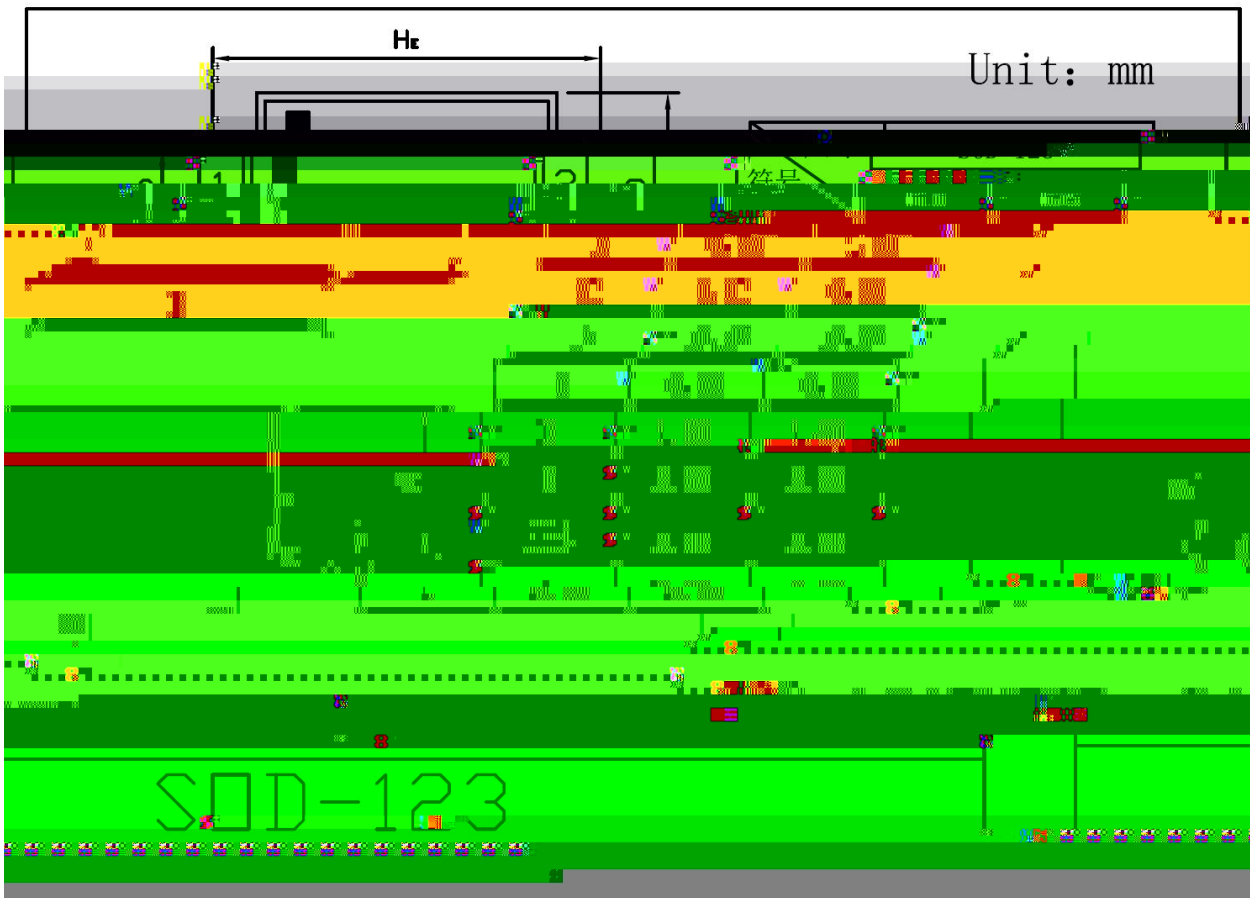
| Parameter   | Symbol                          | Rating     |            |            | Unit |
|---|---------------------------------|------------|------------|------------|------|
|   |                                 | BRSD103AWQ | BRSD103BWQ | BRSD103CWQ |      |
| Peak Repetitive Reverse Voltage<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                                     | $R_{JA}$                        | 300        |            |            | /W   |
| Junction and Storage Temperature Range  | $T_j, T_{STG}$                  | -65 125    |            |            |      |

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

/ Electrical Characteristic Curve



/ Package Dimensions



/ **Marking Instructions**



Q

S5

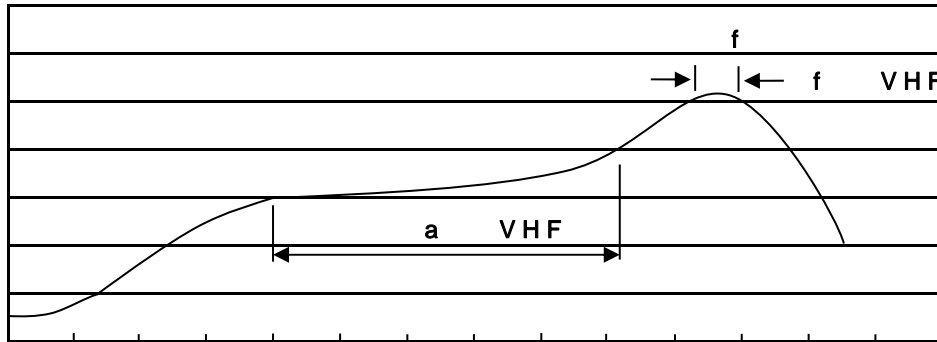
Note:

Q: Automobile halogen-free product Code

S5: Product Type Code

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

7HPSHUDWXUH



7LPH VHF

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>7>û ~ E | Units ;>û !H      |                          |                       |                                |                        | Dimension ;>û p . (unit Åmm³) |             |             |
|-------------------------|-------------------|--------------------------|-----------------------|--------------------------------|------------------------|-------------------------------|-------------|-------------|
|                         | Units/Reel<br>/-- | Reels/Inner Box<br>-- /- | Units/Inner Box<br>/- | Inner Boxes/Outer Box<br>- /!ç | Units/Outer Box<br>/!ç | Reel                          | Inner Box   | Outer Boxç  |
| SOD-123                 | 3,000             | 10                       | 30,000                | 6                              | 180,000                | 7s x8                         | 180x120x180 | 390x385x205 |

/ Notices