

5 é / Descriptions

SOD-323 .> // x RK Ô Â 8 â 'ož  
Schottky Diode in a SOD-323 Plastic Package.

▣<sup>a</sup> / Features

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

Đ ÷ / Applications

RK Ô Â 8 â ' k á V ñ • } Lož  
Schottky diode, Meet the stringent requirements of automotive applications.

Ã W ] Ô • / Equivalent Circuit

• Ů - æ / Pinning

PIN1:Cathode      PIN2:Anode

, M V / Marking

|         |             |             |             |
|---------|-------------|-------------|-------------|
| Model   | BRSD103AWSQ | BRSD103BWSQ | BRSD103CWSQ |
| Marking | QS4         | QS5         | QS6         |

### Absolute Maximum Ratings(Ta=25℃ ; )

| Parameter                                                                               | Symbol                          | Rating      |             |             | Unit |
|-----------------------------------------------------------------------------------------|---------------------------------|-------------|-------------|-------------|------|
|                                                                                         |                                 | BRSD103AWSQ | BRSD103BWSQ | BRSD103CWSQ |      |
| Peak Repetitive Reverse Voltage ,<br>Working Peak Reverse Voltage<br>DC Reverse Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 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                                                                       | $P_D$                           | 200         |             |             | mW   |
| Typical Thermal Resistance<br>Junction to Ambient                                       | $R_{JA}$                        | 625         |             |             | /W   |
| Junction and Storage Temperature Range                                                  | $T_J, T_{stg}$                  | -65 ~ 125   |             |             |      |

### Electrical Characteristics(Ta=25℃ ; )

| Parameter                     | Symbol      | Test Conditions                                            | Rating    |     |      | Unit    |
|-------------------------------|-------------|------------------------------------------------------------|-----------|-----|------|---------|
|                               |             |                                                            | Min       | Typ | Max  |         |
| Reverse Breakdown Voltage     | $V_{(BR)}$  | $I_R=10\mu A$                                              | $V_R$     |     |      | V       |
| Forward Voltage Drop          | $V_{FM}$    | $I_F=20mA$                                                 |           |     | 0.37 | V       |
|                               |             | $I_F=200mA$                                                |           |     | 0.6  |         |
| Instantaneous Reverse Current | BRSD103AWSQ | $I_{RM}$                                                   | $V_R=30V$ |     | 5.0  | $\mu A$ |
|                               | BRSD103BWSQ |                                                            | $V_R=20V$ |     |      |         |
|                               | BRSD103CWSQ |                                                            | $V_R=10V$ |     |      |         |
| Reverse Recovery Time         | $t_{rr}$    | $I_F=I_R=200mA$<br>$I_{rr}=0.1 \times I_R$ $R_L=100\Omega$ |           | 10  |      | ns      |
| Total Capacitance             | $C_T$       | $V_R=0V$ $f=1.0MHz$                                        |           | 50  |      | pF      |

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø □ = ) ¢ / Package Dimensions

, M y f / Marking Instructions

# QS4

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9 y ° Z W A

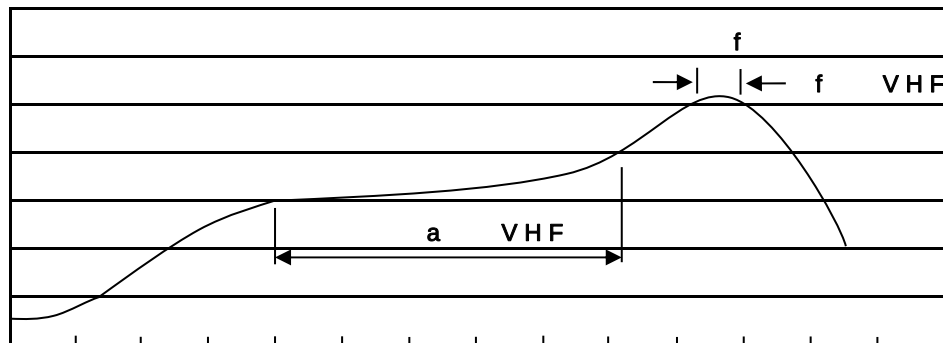
Note:

Q: Automobile halogen-free product Code

S4: Product Type

ŠWD t... • Žč (x/ ) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWUXUH



7LPH VHF

<sup>a</sup>čy

Note:

- 10• Ä ½ “† 150 ½200 - k ž • 60 ½120sec; 1.Preheating:150~200 - , Time:60~120sec.  
 20• Q > “† 255 r5 - k ž • 4 Ò 5 r0.5sec; 2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.  
 30•D N ò i Ò 0 ,† 2 ½10 - /sec. 3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ » ] / Resistance to Soldering Heat Test Conditions

“† y 260 r5 - ž • y 10 r1 sec. Temp.:260 r5 - Time:10 r1 sec

G P á / Packaging SPEC.

2 & x / REEL

| Package Type<br>7>û ~ E | Units ;>û ;H     |                          |                       |                                |                        | Dimension ;>û p . (unit /mm³) |             |             |
|-------------------------|------------------|--------------------------|-----------------------|--------------------------------|------------------------|-------------------------------|-------------|-------------|
|                         | Units/Reel<br>/- | Reels/Inner Box<br>-- /- | Units/Inner Box<br>/- | Inner Boxes/Outer Box<br>- /1ç | Units/Outer Box<br>/1ç | Reel                          | Inner Box   | Outer Box   |
| SOD-323                 | 3,000            | 10                       | 30,000                | 6                              | 180,000                | 7 s ×8                        | 180×120×180 | 390×385×205 |

„Đ y f / Notices