

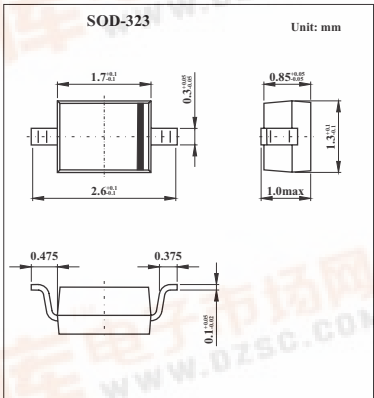
SMD Type

Diodes

SURFACE MOUNT SCHOTTKY BARRIER DIODE  
SD103CWS

■ Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Ultra-small Surface Mount Package



■ Absolute Maximum Ratings Ta = 25℃

| Parameter                                            | Symbol   | Value       | Unit |
|------------------------------------------------------|----------|-------------|------|
| Peak Repetitive Reverse Voltage                      | VRRM     | 20          | V    |
| Working Peak Reverse Voltage                         | VRWM     | 20          | V    |
| DC Blocking Voltage                                  | VR       | 20          | V    |
| RMS Reverse Voltage                                  | VR(RMS)  | 14          | V    |
| Forward Continuous Current (Note 1)                  | IFM      | 350         | mA   |
| Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s | IFSM     | 1.5         | A    |
| Power Dissipation (Note1)                            | Pd       | 200         | mW   |
| Thermal Resistance, Junction to Ambient Air (Note 1) | RθJA     | 625         | ℃/W  |
| Operating and Storage Temperature Range              | Tj, TSTG | -65 to +125 | ℃    |

Note:

1. Part mounted on FR-4 PC board with recommended pad layout.

■ Electrical Characteristics Ta = 25℃

| Characteristic                        | Symbol | Test Condition                                 | Min | Typ | Max  | Unit |
|---------------------------------------|--------|------------------------------------------------|-----|-----|------|------|
| Reverse Breakdown Voltage (Note 2)    | V(BR)R | VR = 10 μA                                     | 20  |     |      | V    |
| Forward Voltage Drop (Note 2)         | VFM    | IF = 20 mA                                     |     |     | 0.37 | V    |
|                                       |        | IF = 100 mA                                    |     |     | 0.6  |      |
| Peak Reverse Leakage Current (Note 2) | IRM    | VR = 10 V                                      |     |     | 5.0  | μA   |
| Total Capacitance                     | CT     | VR = 0 V, f = 1.0 MHz                          |     | 50  |      | pF   |
| Reverse Recovery Time                 | trr    | IF = IR = 200 mA<br>Irr = 0.1 x IR, RL = 100 Ω |     | 10  |      | ns   |

Note:

2. Short duration test pulse used to minimize self-heating effect.

■ Marking

|         |    |
|---------|----|
| Marking | S6 |
|---------|----|

