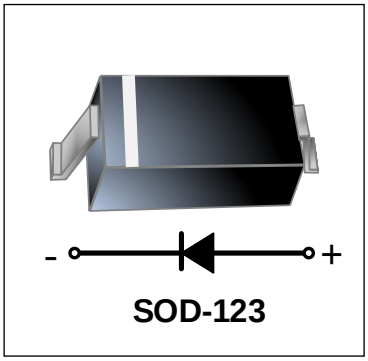
# WSR3002D1

**Schottky Barrier Diode**

## Features

- Low Forward Voltage Schottky Rectifier
- SOD-123 Thin SMD Package




## Applications

- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Application

## Absolute Maximum Rating

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Non-Repetitive Peak Repetitive Voltage | $V_{RM}$ | 30 | V |
| Repetitive Peak Reverse Voltage | $V_{RRW}$ | 30 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | V |
| Average Rectified Output Current | $I_O$ | 200 | mA |
| Repetitive Peak Forward Current @t<1.0S | $I_{FSM}$ | 500 | mA |
| Non-repetitive Peak Forward Surge Current [1] | $I_{FSM}$ | 4.0 | A |
| Power Dissipation | $P_D$ | 500 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 500 | mW/°C |
| Junction Temperature | $T_J$ | 125 | °C |
| Storage Temperature | $T_{STG}$ | -65 to +125 | °C |

Note1：8.3ms single half sine-wave.

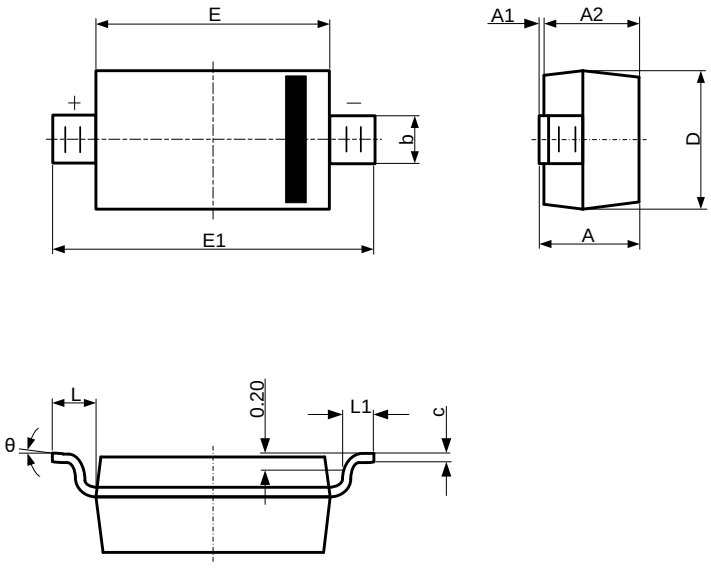
## Electrical Characteristics (Tamb=25°C unless otherwise noted)

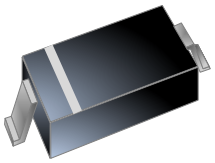
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R$ = 100μA | 30 | - | - | V |
| Forward Voltage | $V_F$ | $I_F$ = 2mA | - | - | 0.33 | V |
| | | $I_F$ = 10mA | - | - | 0.40 | |
| | | $I_F$ = 15mA | - | - | 0.45 | |
| | | $I_F$ = 50mA | - | - | 0.65 | |
| | | $I_F$ =200mA | - | - | 1.0 | |
| Reverse Current | $I_R$ | $V_R$ = 25V | - | - | 500 | nA |
| Capacitance | $C_T$ | $V_R$ = 1V,f=1MHz | - | 10 | - | pF |
| Reverse Recovery Time | $t_{rr}$ | $I_F$=$I_R$=10mA,Irr=0.1$I_R$,$R_L$=100Ω | - | 5.0 | - | ns |

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# Outline Drawing –SOD-123

## PACKAGE OUTLINE

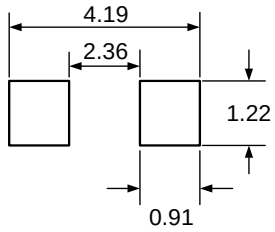


**SOD-123**

**DIMENSIONS**

| SYMBOL | MILLIMETER | | INCHES | |
|---|---|---|---|---|
| | MIN | MAX | MIN | MAX |
| A | 1.050 | 1.250 | 0.041 | 0.049 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 1.050 | 1.150 | 0.041 | 0.045 |
| b | 0.450 | 0.650 | 0.018 | 0.026 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 2.600 | 2.800 | 0.102 | 0.110 |
| E1 | 3.550 | 3.850 | 0.140 | 0.152 |
| L | 0.500 REF | | 0.020 REF | |
| L1 | 0.250 | 0.450 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |




DIMENSIONS: MILLIMETERS

**Notes**

1. Controlling Dimensions in Millimeters.
2. Dimensions are exclusive of mold flash and metal burrs.

# Marking Codes

| Part Number | WSR3002D1 |
|---|---|
| Marking Code | S7 |

# Package Information

Qty：3k/Reel

## CONTACT INFORMATION

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*The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.*
*Users should verify actual device performance in their specific applications.*