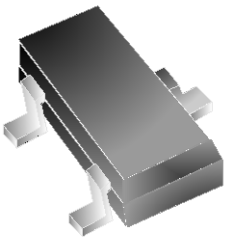
# WSR4002T1

**Schottky Barrier Diode**

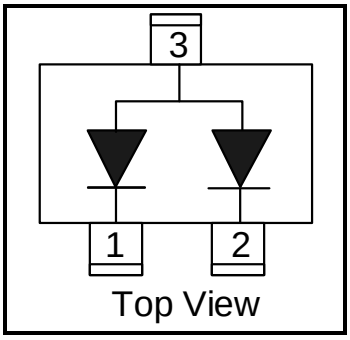
## Features

- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package
- RoHS compliant / Green EMC



SOT-23

## Schematic & PIN Configuration




## Absolute Maximum Rating

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak Repetitive Peak Reverse Voltage | $V_R$ | 40 | V |
| Forward Continuous Current | $I_F$ | 200 | mA |
| Power Dissipation | $P_D$ | 200 | mW |
| Non-Repetitive Peak Forward Surge Current @ t=1s | $I_{FSM}$ | 0.6 | A |
| Soldering temperature during | $T_j$ | 260 | °C |
| Thermal Resistance Junction to Ambient | $R_j$ | 500 | °C/W |
| Junction Temperature | $T_J$ | -55 to 125 | °C |
| Storage Temperature | $T_{stg}$ | -55 to 150 | °C |

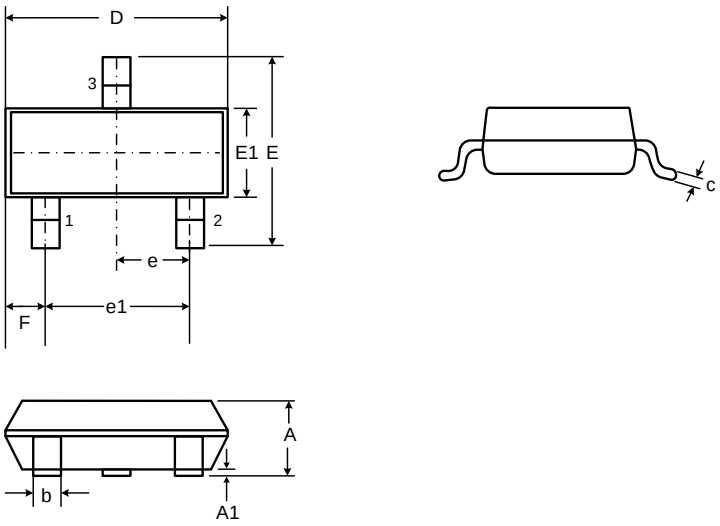
## Electrical Characteristics ($T_{amb}$=25°C unless otherwise noted)

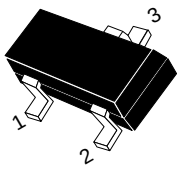
| Parameter | Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Reverse BreakdownVoltage | $V_{BR}$ | $I_R$ = 10μA | 40 | - | - | V |
| Reverse Voltage Leakage Current | $I_R$ | $V_R$ = 30V | - | - | 200 | nA |
| Forward Voltage | $V_F$ | $I_F$ = 1mA | - | - | 0.38 | V |
| | $V_F$ | $I_F$ = 40mA | - | - | 1 | |
| Typical Junction Capacitance | $C_J$ | $V_R$= 0V, f=1.0MHz | - | 4.5 | - | pF |
| Reverse Recovery Time | $T_{rr}$ | $I_F$=$I_R$=10mA,$I_{(REC)}$=1mA | - | 4.5 | - | nS |

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# Outline Drawing –SOT-23

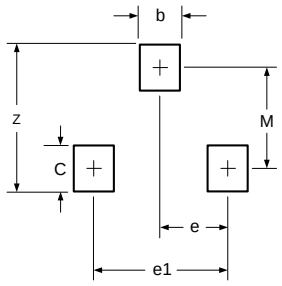
## PACKAGE OUTLINE




SOT-23

| DIMENSIONS | | | | |
|---|---|---|---|---|
| SYMBOL | MILLIMETER | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 0.90 | 1.11 | 0.035 | 0.044 |
| A1 | 0.01 | 0.10 | 0.000 | 0.004 |
| b | 0.37 | 0.51 | 0.015 | 0.020 |
| c | 0.09 | 0.18 | 0.004 | 0.007 |
| D | 2.80 | 3.04 | 0.110 | 0.120 |
| E | 2.10 | 2.64 | 0.083 | 0.104 |
| E1 | 1.20 | 1.40 | 0.047 | 0.055 |
| e | 0.89 | 1.03 | 0.035 | 0.041 |
| e1 | 1.78 | 2.05 | 0.070 | 0.081 |
| F | 0.45 | 0.60 | 0.018 | 0.024 |




| DIMENSIONS | | |
|---|---|---|
| DIM | INCHES | MILLIMETERS |
| M | 0.0795 | 2.02 |
| C | 0.0315 | 0.80 |
| Z | 0.111 | 2.82 |
| e | 0.037 BSC | 0.95 BSC |
| e1 | 0.075 BSC | 1.9 BSC |
| b | 0.0315 | 0.80 |

**Notes**

**1**. Dimensioning and tolerances per ANSI Y14.5M, 1985.
**2**. Controlling Dimension: Inches
**3**. Pin 3 is the cathode (Unidirectional Only).
**4**. Dimensions are exclusive of mold flash and metal burrs.

# Marking Codes

| Part Number | WSR4002T1 |
|---|---|
| Marking Code | 46 |

# Package Information

Qty：3k/Reel

## CONTACT INFORMATION

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*Specifications are subject to change without notice.*
*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.*