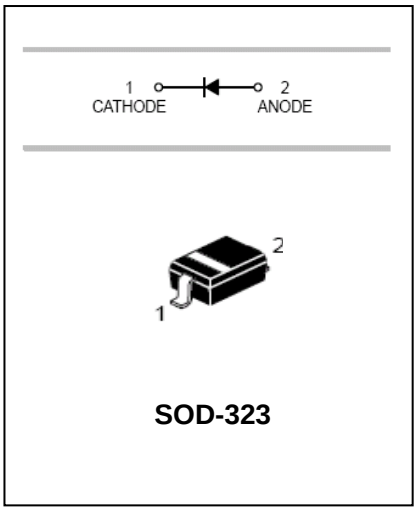
Silicon Epitaxial Planar Diode **1N4148WS**

## FEATURES

- Fast Switching Speed:trr=4ns(Typ)
- Surface Mount Package Ideally Suited For Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Available in Lead Free Version

Lead-free




## APPLICATIONS

- Surface mount fast switching diode

## ORDERING INFORMATION

| Type No. | Marking | Package Code |
|---|---|---|
| 1N4148WS | T4 | SOD-323 |

## MAXIMUM RATING @ Ta=25℃ unless otherwise specified

| **Characteristic** | **Symbol** | **Value** | **Unit** |
|---|---|---|---|
| Non-Repetitive Peak Reverse Voltage | $V_{RM}$ | 100 | V |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Reverse Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 75 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 53 | V |
| Forward Continuous Current | $I_{FM}$ | 300 | mA |
| Average Rectified Output Current | $I_o$ | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @t=1.0 μs<br>@t=1.0 s | $I_{FSM}$ | 2.0<br>1.0 | A |
| Power Dissipation | $P_d$ | 200 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 625 | ℃/W |
| Operating and Storage Temperature Rage | $T_j$,$T_{STG}$ | -65 to+150 | ℃ |

Silicon Epitaxial Planar Diode **1N4148WS**

## ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|---|---|---|---|---|---|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 75 | - | V | $I_R$=1.0μA |
| Forward Voltage | $V_F$ | - | 0.715<br>0.855<br>1.0<br>1.25 | V | $I_F$=1.0mA<br>$I_F$=10mA<br>$I_F$=50mA<br>$I_F$=150mA |
| Reverse Current | $I_R$ | - | 1.0<br>25 | μA<br>nA | $V_R$=75V<br>$V_R$=20V |
| Capacitance between terminals | $C_T$ | - | 2.0 | pF | $V_R$=0,f=1.0MHz |
| Reverse Recovery Time | $t_{rr}$ | - | 4.0 | ns | $I_F$=$I_R$=10mA,<br>$I_{rr}$=0.1×$I_R$,$R_L$=100Ω |

## TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

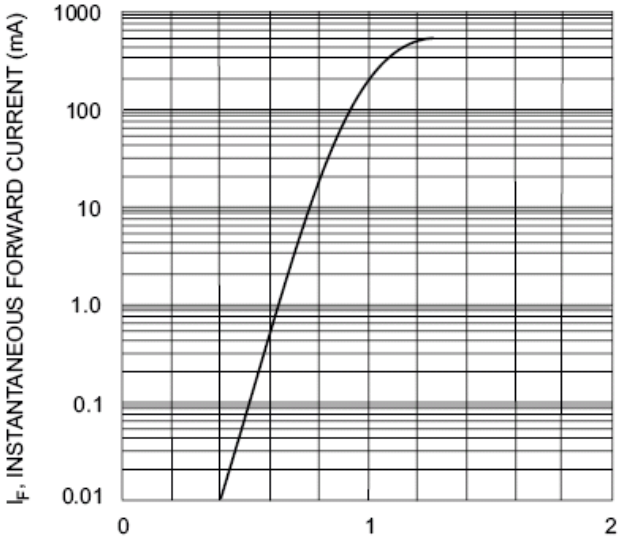


Fig. 1 Forward Characteristics

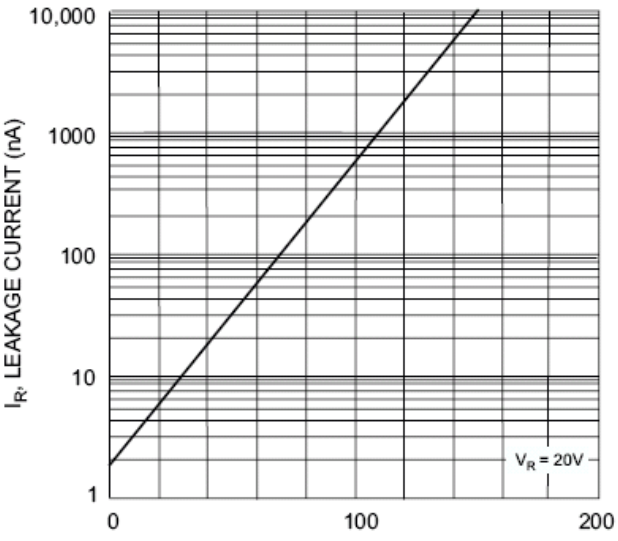
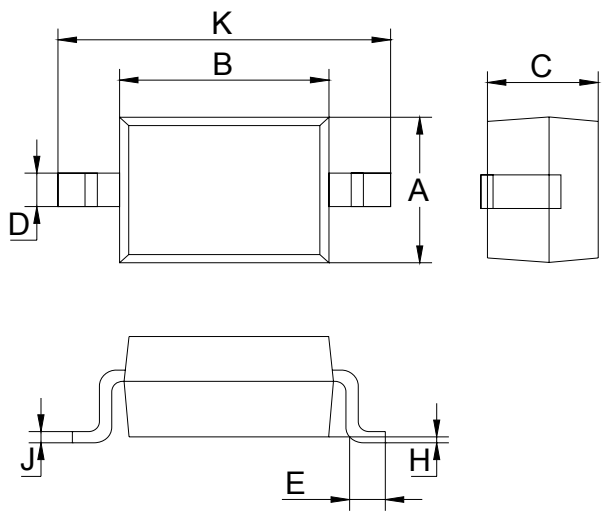


Fig. 2 Leakage Current vs Junction Temperature

Silicon Epitaxial Planar Diode **1N4148WS**

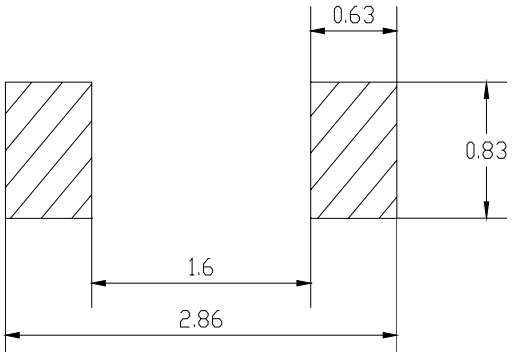
## PACKAGE OUTLINE

Plastic surface mounted package SOD-323




| SOD-323 | | |
|---|---|---|
| Dim | Min | Max |
| A | 1.275 | 1.325 |
| B | 1.675 | 1.725 |
| C | 0.9 Typical | |
| D | 0.25 | 0.35 |
| E | 0.27 | 0.37 |
| H | 0.02 | 0.1 |
| J | 0.1 Typical | |
| K | 2.6 | 2.7 |
| All Dimensions in mm | | |

## SOLDERING FOOTPRINT




Unit ： mm

## PACKAGE INFORMATION

| Device | Package | Shipping |
|---|---|---|
| 1N4148WS | SOD-323 | 3000/Tape&Reel |