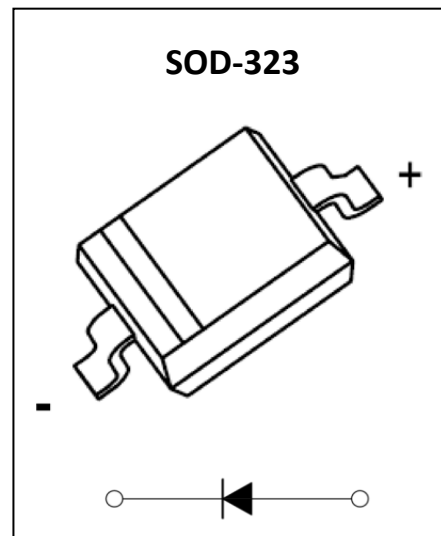


**1N4148WS Fast Switching Diodes**
**Feature**

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications

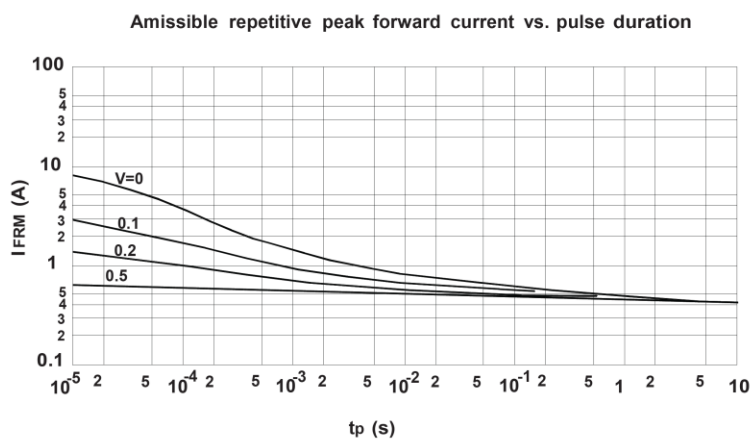
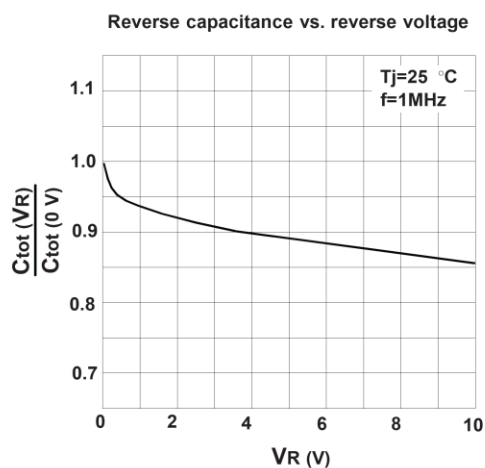
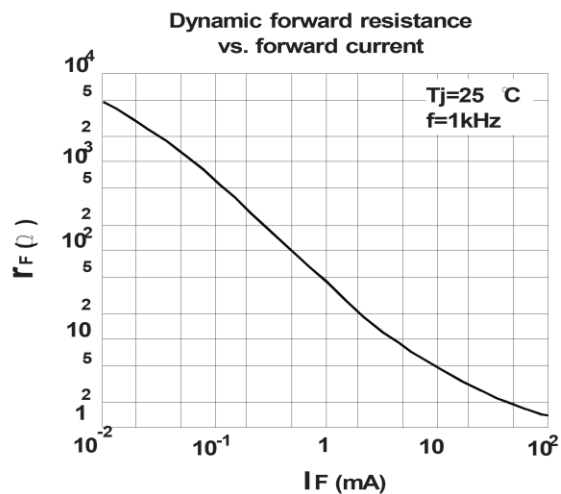
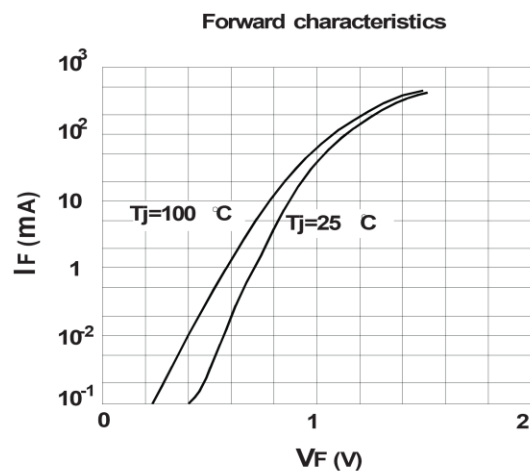
**MARKING: T4**

**ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

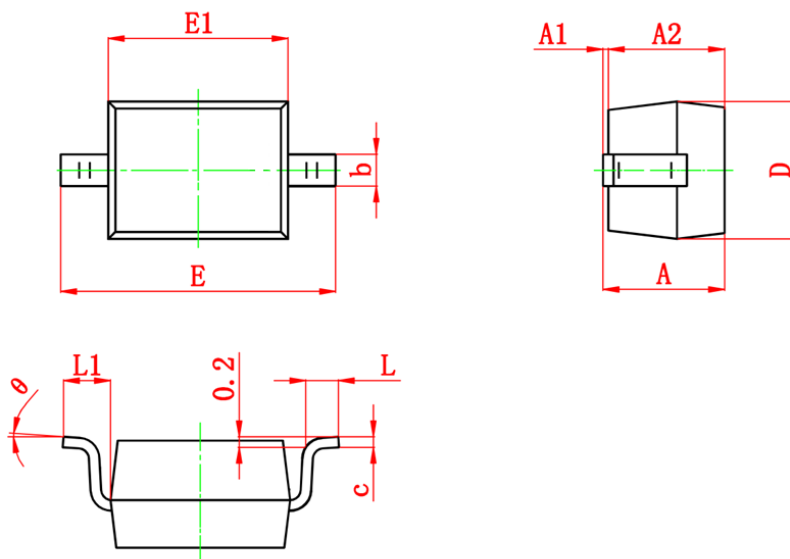
| Parameter                                                   | Symbol       | Value      | Unit               |
|-------------------------------------------------------------|--------------|------------|--------------------|
| Non-Repetitive Peak Reverse Voltage                         | $V_{RM}$     | 100        | V                  |
| Repetitive Peak Reverse Voltage                             | $V_{RRM}$    | 100        | V                  |
| Working Peak Reverse Voltage                                | $V_{RWM}$    |            |                    |
| DC Blocking Voltage                                         | $V_R$        |            |                    |
| RMS Reverse Voltage                                         | $V_{R(RMS)}$ | 71         | V                  |
| Mean rectifying current                                     | $I_O$        | 0.15       | A                  |
| Forward Continuous Current                                  | $I_{FM}$     | 0.3        | A                  |
| Non-repetitive Peak Forward Surge Current @ $t=1\text{ us}$ | $I_{FSM}$    | 2          | A                  |
| Power Dissipation                                           | $P_D$        | 0.2        | W                  |
| Junction Temperature                                        | $T_J$        | 155        | $^{\circ}\text{C}$ |
| Storage Temperature                                         | $T_{STG}$    | -55 ~ +150 | $^{\circ}\text{C}$ |

**ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

| Parameter             | Symbol   | Test Condition                                                       | Min | Max   | Unit          |
|-----------------------|----------|----------------------------------------------------------------------|-----|-------|---------------|
| Forward Voltage       | $V_F$    | $I_F=1\text{mA}$                                                     |     | 0.715 | V             |
|                       |          | $I_F=10\text{mA}$                                                    |     | 0.855 | V             |
|                       |          | $I_F=50\text{mA}$                                                    |     | 1.0   | V             |
|                       |          | $I_F=150\text{mA}$                                                   |     | 1.25  | V             |
| Reverse Current       | $I_R$    | $V_R=20\text{V}$                                                     |     | 25    | nA            |
|                       |          | $V_R=75\text{V}$                                                     |     | 1     | $\mu\text{A}$ |
| Diode Capacitance     | $C_D$    | $V_R=0\text{V}$ , $f=1\text{MHz}$                                    |     | 2     | pF            |
| Reverse Recovery Time | $t_{rr}$ | $I_F=I_R=10\text{mA}$ , $I_{\pi}=0.1 \cdot I_R$ ,<br>$R_L=100\Omega$ |     | 4     | ns            |

## Typical Electrical and Thermal Characteristics



**SOD-323 Package Outline Dimensions**


| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min.                      | Max.  | Min.                 | Max.  |
| A        | 1.150MAX                  |       | 0.045MAX             |       |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.800                     | 0.900 | 0.031                | 0.035 |
| b        | 0.250                     | 0.400 | 0.010                | 0.016 |
| c        | 0.080                     | 0.180 | 0.003                | 0.007 |
| D        | 1.200                     | 1.400 | 0.047                | 0.055 |
| E        | 2.500                     | 2.800 | 0.098                | 0.110 |
| E1       | 1.600                     | 1.800 | 0.063                | 0.071 |
| L        | 0.200                     | 0.450 | 0.008                | 0.018 |
| L1       | 0.475REF                  |       | 0.019REF             |       |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |

**Attention:**

- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
- GreenPower Electronics products belong to consumer electronics or other civilian electronic products.