

## Silicon Epitaxial Planar Diode

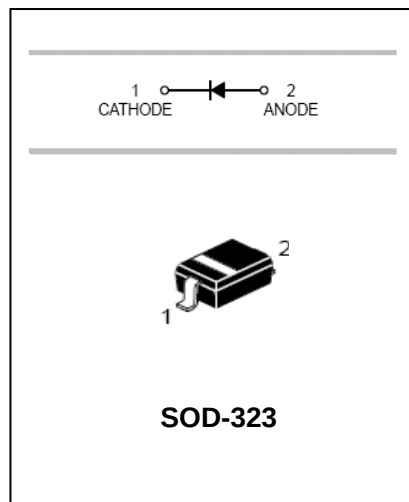
## 1N4148WS

### FEATURES

- Fast Switching Speed:  $t_{rr}=4ns$
- 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 @ $T_a=25^{\circ}C$ unless otherwise specified

| Characteristic                                                           | Symbol          | Value       | Unit          |
|--------------------------------------------------------------------------|-----------------|-------------|---------------|
| Non-Repetitive Peak Reverse Voltage                                      | $V_{RM}$        | 100         | V             |
| Peak Repetitive Reverse Voltage                                          | $V_{RRM}$       | 75          | V             |
| Working Peak Reverse Voltage                                             | $V_{RWM}$       |             |               |
| DC Reverse Voltage                                                       | $V_R$           |             |               |
| RMS Reverse Voltage                                                      | $V_{R(RMS)}$    | 53          | V             |
| Average Rectified Output Current                                         | $I_o$           | 150         | mA            |
| Non-Repetitive Peak Forward Surge Current @ $t=1.0 \mu s$<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         | $^{\circ}C/W$ |
| Operating and Storage Temperature Range                                  | $T_j, T_{STG}$  | -65 to +150 | $^{\circ}C$   |



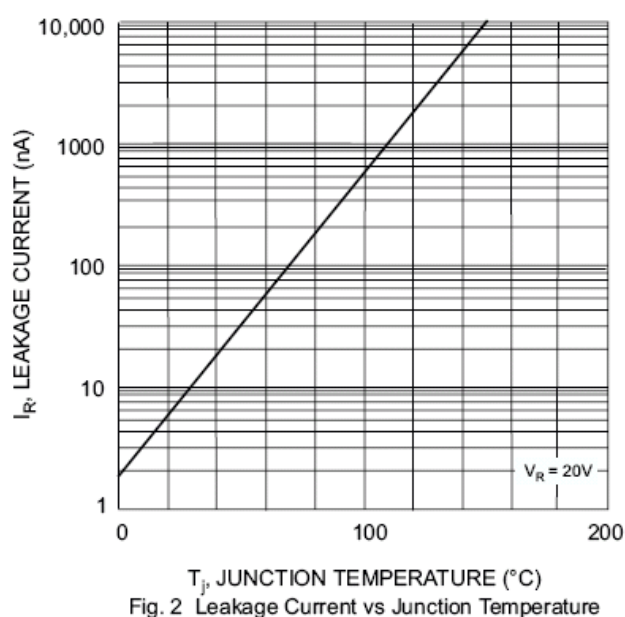
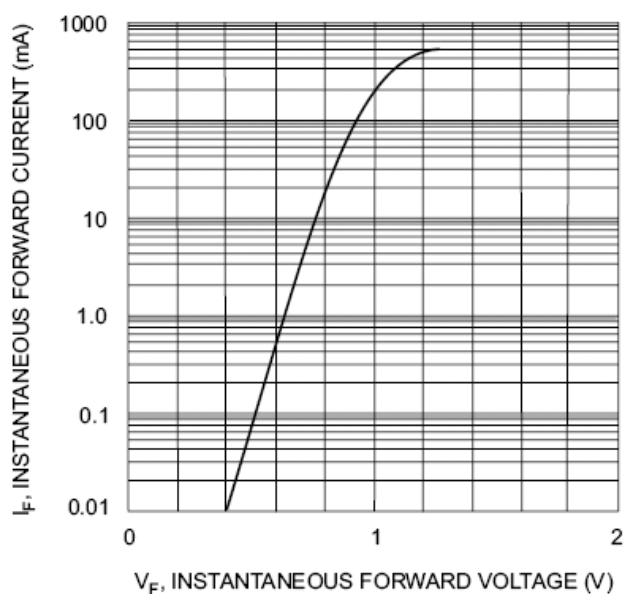
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Characteristic            | Symbol      | Min | Max                           | Unit          | Test Condition                                            |
|---------------------------|-------------|-----|-------------------------------|---------------|-----------------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 75  | -                             | V             | $I_R=1.0\mu A$                                            |
| 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                     | $\mu A$<br>nA | $V_R=75V$<br>$V_R=20V$                                    |
| Junction Capacitance      | $C_J$       | -   | 2.0                           | pF            | $V_R=0, f=1.0MHz$                                         |
| Reverse Recovery Time     | $t_{rr}$    | -   | 4.0                           | ns            | $I_F=I_R=10mA$ ,<br>$I_{tr}=0.1\times I_R, R_L=100\Omega$ |

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



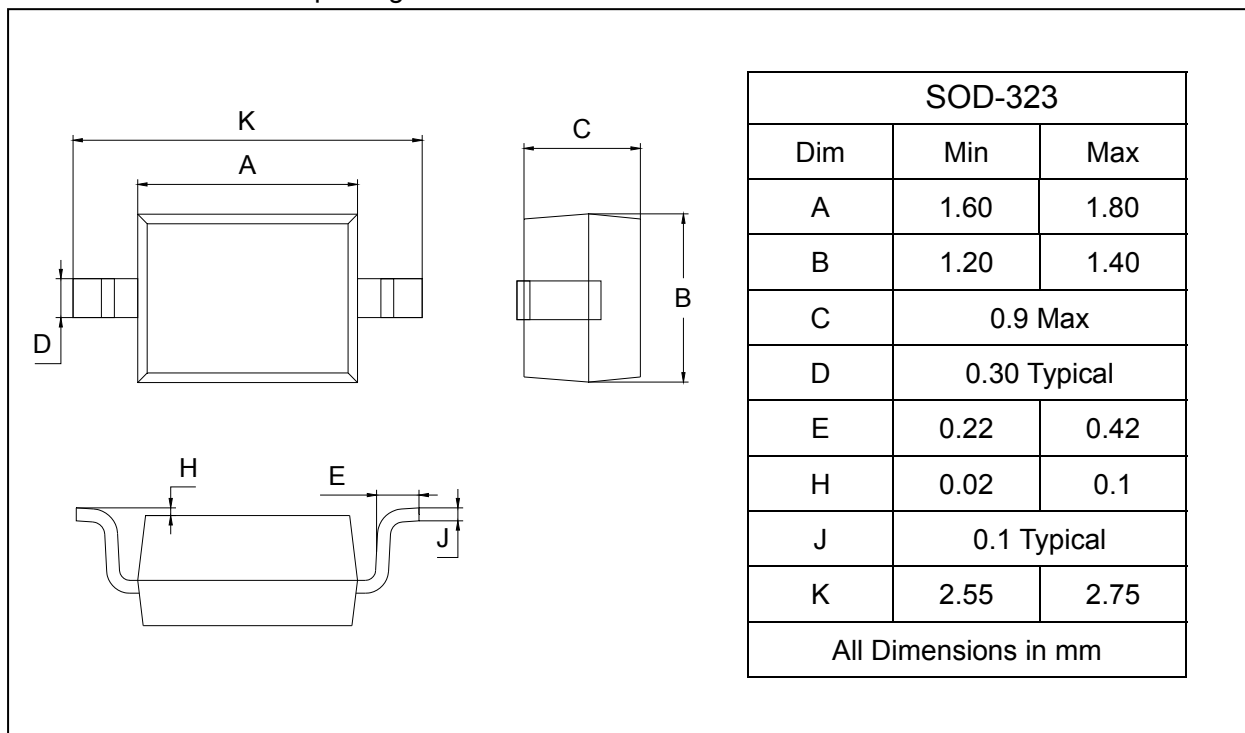
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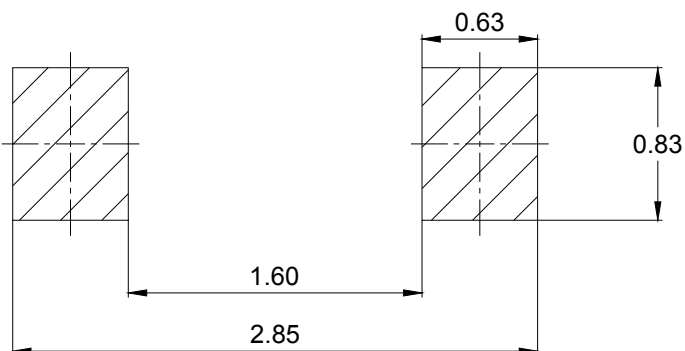
### PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

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