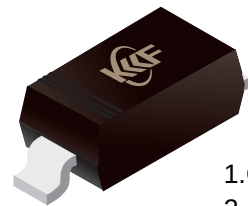


## 1N4448W

### ■ Fast switching Diode

#### ■ Features

- Fast Switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- For General Purpose Switching Applications
- High Conductance



1.Cathode  
2.Anode

#### ■ Simplified outline(SOD-123)

Top View 

#### ■ APPLICATIONS

- Surface mount fast switching diode

#### ■ MARKING

|         |    |
|---------|----|
| Marking | T5 |
|---------|----|

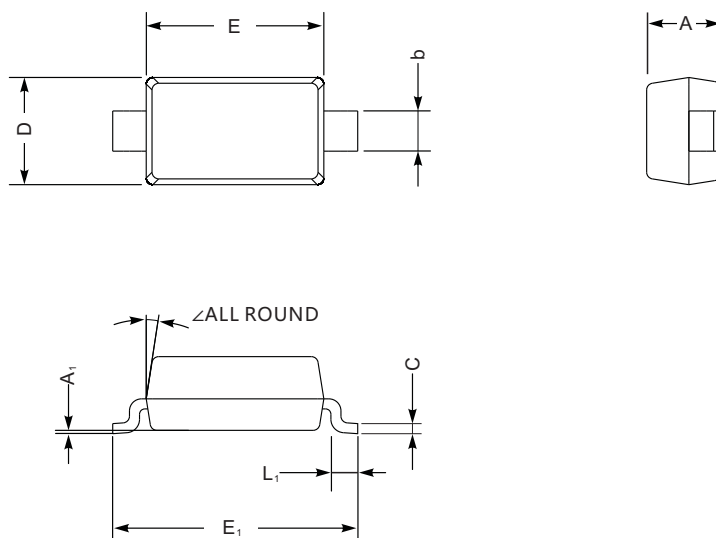
#### ■ MAXIMUM RATING @ Ta=25°C unless otherwise specified

| 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    |
| Forward Continuous Current                               | $I_{FM}$        | 500         | mA   |
| Average Rectified Output Current                         | $I_o$           | 250         | mA   |
| Non-Repetitive Peak Forward Surge Current @t=1.0 $\mu$ s | $I_{FSM}$       | 4.0         | A    |
| @t=1.0 s                                                 |                 | 2.0         |      |
| Power Dissipation                                        | $P_d$           | 350         | mW   |
| Thermal Resistance Junction to Ambient Air               | $R_{\theta JA}$ | 357         | °C/W |
| Operating and Storage Temperature Range                  | $T_j, T_{STG}$  | -65 to +150 | °C   |

#### ■ 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               | $V_{F1}$<br>$V_{F2}$<br>$V_{F3}$<br>$V_{F4}$ | 0.62 | 0.72<br>0.855<br>1.0<br>1.25 | V             | $I_F=5mA$<br>$I_F=10mA$<br>$I_F=100mA$<br>$I_F=150mA$     |
| Reverse Current               | $I_{R1}$<br>$I_{R2}$                         | -    | 2.5<br>25                    | $\mu A$<br>nA | $V_R=75V$<br>$V_R=20V$                                    |
| Capacitance between terminals | $C_T$                                        | -    | 4.0                          | pF            | $V_R=0, f=1.0MHz$                                         |
| Reverse Recovery Time         | $t_{rr}$                                     | -    | 4.0                          | ns            | $I_F=I_R=10mA,$<br>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |

■ SOD-123



SOD-123 mechanical data

| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | L <sub>1</sub> | b   | A <sub>1</sub> | ∠  |
|------|-----|-----|------|-----|-----|----------------|----------------|-----|----------------|----|
| mm   | max | 1.3 | 0.22 | 1.8 | 2.8 | 3.9            | 0.45           | 0.7 | 0.2            | 9° |
|      | min | 0.9 | 0.09 | 1.5 | 2.5 | 3.6            | 0.25           | 0.5 | —              |    |
| mil  | max | 51  | 8.7  | 71  | 110 | 154            | 18             | 28  | 8              |    |
|      | min | 35  | 3.5  | 59  | 98  | 142            | 10             | 20  | —              |    |

■ The recommended mounting pad size

