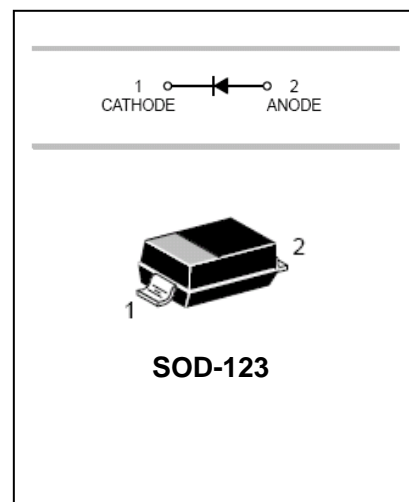


## Fast switching Diode

### Features:

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



### Applications:

- Surface mount fast switching diode

## ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| 1N4448W  | T5      | SOD-123      |

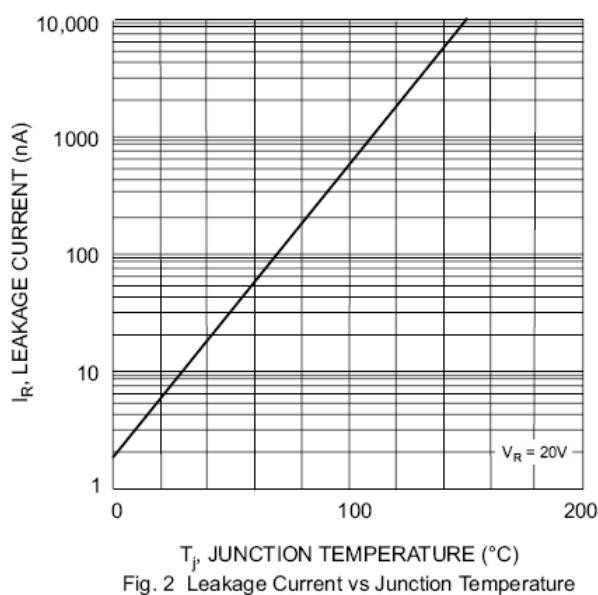
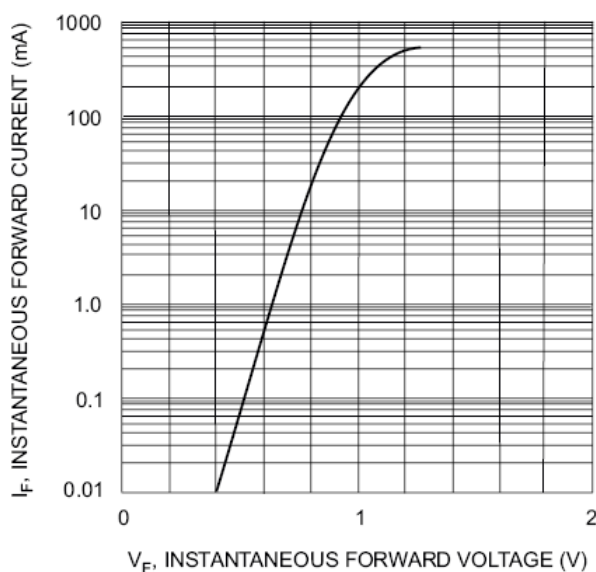
## MAXIMUM RATING @ Ta=25°C unless otherwise specified

| 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 μs | $I_{FSM}$       | 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>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |

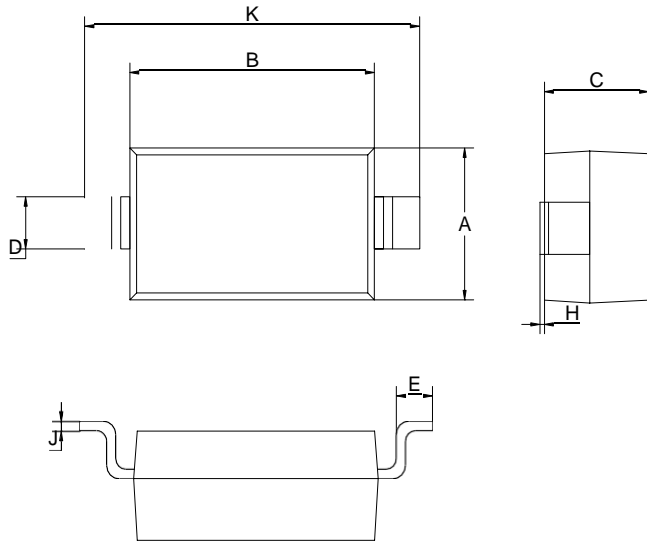
**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**



**PACKAGE OUTLINE**

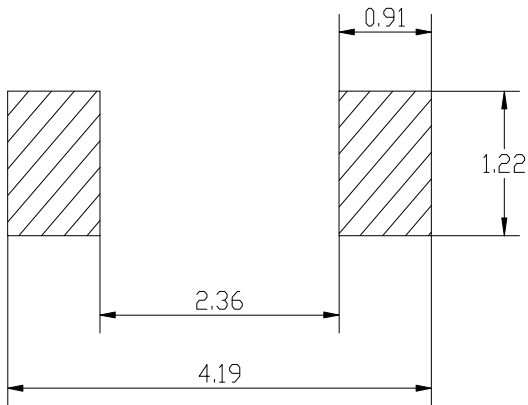
Plastic surface mounted package

SOD-123



| SOD-123              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 1.4          | 1.8  |
| B                    | 2.55         | 2.85 |
| C                    | 1.15 Typical |      |
| D                    | 0.5          | 0.6  |
| E                    | 0.3          | 0.4  |
| H                    | 0.02         | 0.10 |
| J                    | 0.1 Typical  |      |
| K                    | 3.55         | 3.85 |
| All Dimensions in mm |              |      |

**SOLDERING FOOTPRINT**



Unit: mm

**PACKAGE INFORMATION**

| Device  | Package | Shipping       |
|---------|---------|----------------|
| 1N4448W | SOD-123 | 3000/Tape&Reel |