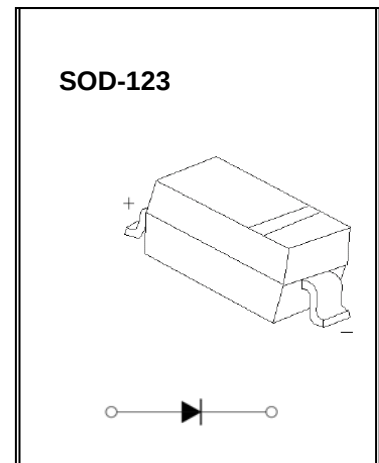


FAST SWITCHING DIODE

**FEATURES**

- **Fast Switching Speed**
- **Surface Mount Package Ideally Suited for Automatic Insertion**
- **For General Purpose Switching Applications**
- **High Conductance**
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"
- **Moisture Sensitivity Level 1**
- **Polarity:** Color band denotes cathode end



**MARKING: T5 & A3**

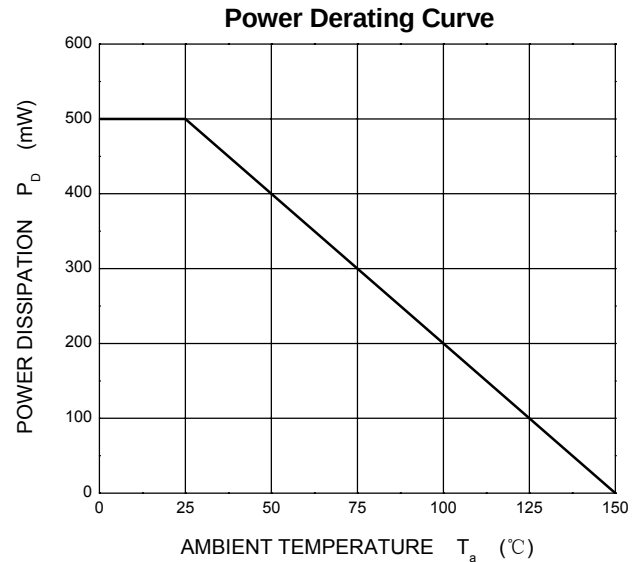
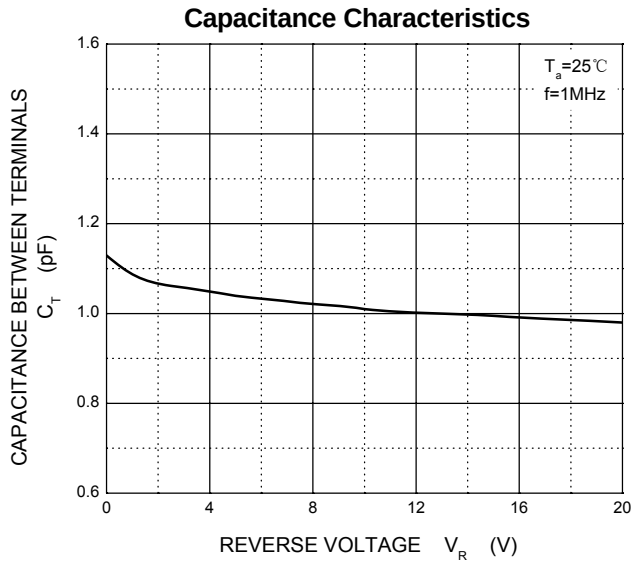
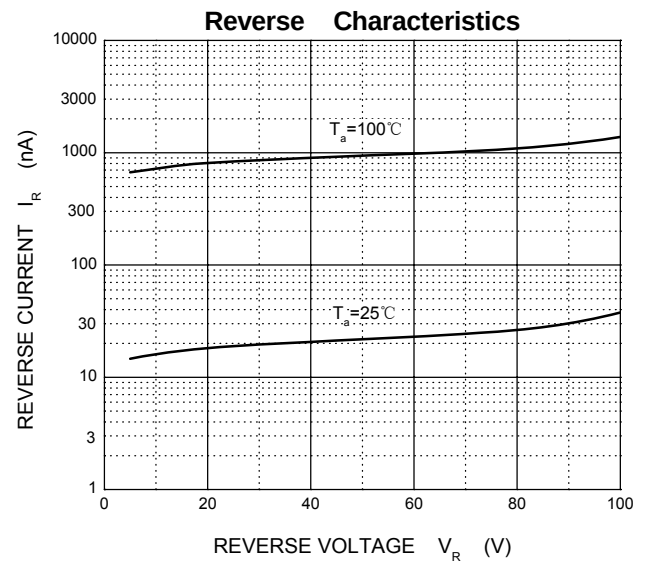
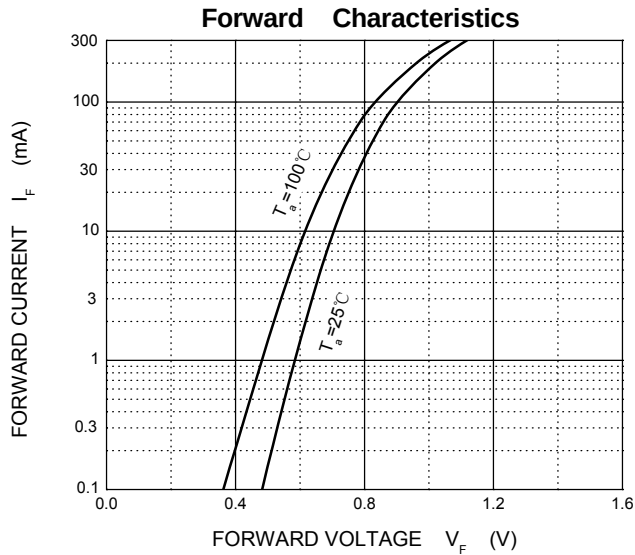
**Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C**

| Parameter                                  | Symbol          | Limit    | Unit |
|--------------------------------------------|-----------------|----------|------|
| Non-Repetitive Peak Reverse Voltage        | $V_{RM}$        | 100      | V    |
| Peak Repetitive Peak Reverse Voltage       | $V_{RRM}$       | 75       | V    |
| Working Peak Reverse Voltage               | $V_{RWM}$       |          |      |
| DC Blocking 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   |
| Peak Forward Surge Current @t=1.0μs        | $I_{FSM}$       | 4.0      | A    |
| @t=1.0s                                    |                 | 1.5      |      |
| Power Dissipation                          | $P_d$           | 500      | mW   |
| Thermal Resistance Junction to Ambient     | $R_{\theta JA}$ | 250      | °C/W |
| Storage/Operating and Junction Temperature | $T_{STG}/T_j$   | -55~+150 | °C   |

**Electrical Ratings @Ta=25°C**

| Parameter                     | Symbol      | Min  | Typ | Max   | Unit | Conditions                                       |
|-------------------------------|-------------|------|-----|-------|------|--------------------------------------------------|
| Reverse Breakdown Voltage     | $V_{(BR)R}$ | 75   |     |       | V    | $I_R=10\mu A$                                    |
| Forward Voltage               | $V_{F1}$    | 0.62 |     | 0.72  | V    | $I_F=5mA$                                        |
|                               | $V_{F2}$    |      |     | 0.855 | V    | $I_F=10mA$                                       |
|                               | $V_{F3}$    |      |     | 1.0   | V    | $I_F=100mA$                                      |
|                               | $V_{F4}$    |      |     | 1.25  | V    | $I_F=150mA$                                      |
| Reverse Current               | $I_{R1}$    |      |     | 2.5   | μA   | $V_R=75V$                                        |
|                               | $I_{R2}$    |      |     | 25    | nA   | $V_R=20V$                                        |
| Capacitance Between Terminals | $C_T$       |      |     | 4     | pF   | $V_R=0V, f=1MHz$                                 |
| Reverse Recovery Time         | $t_{rr}$    |      |     | 4     | ns   | $I_F=I_R=10mA$<br>$I_{rr}=0.1I_R, R_L=100\Omega$ |

## Typical Characteristics





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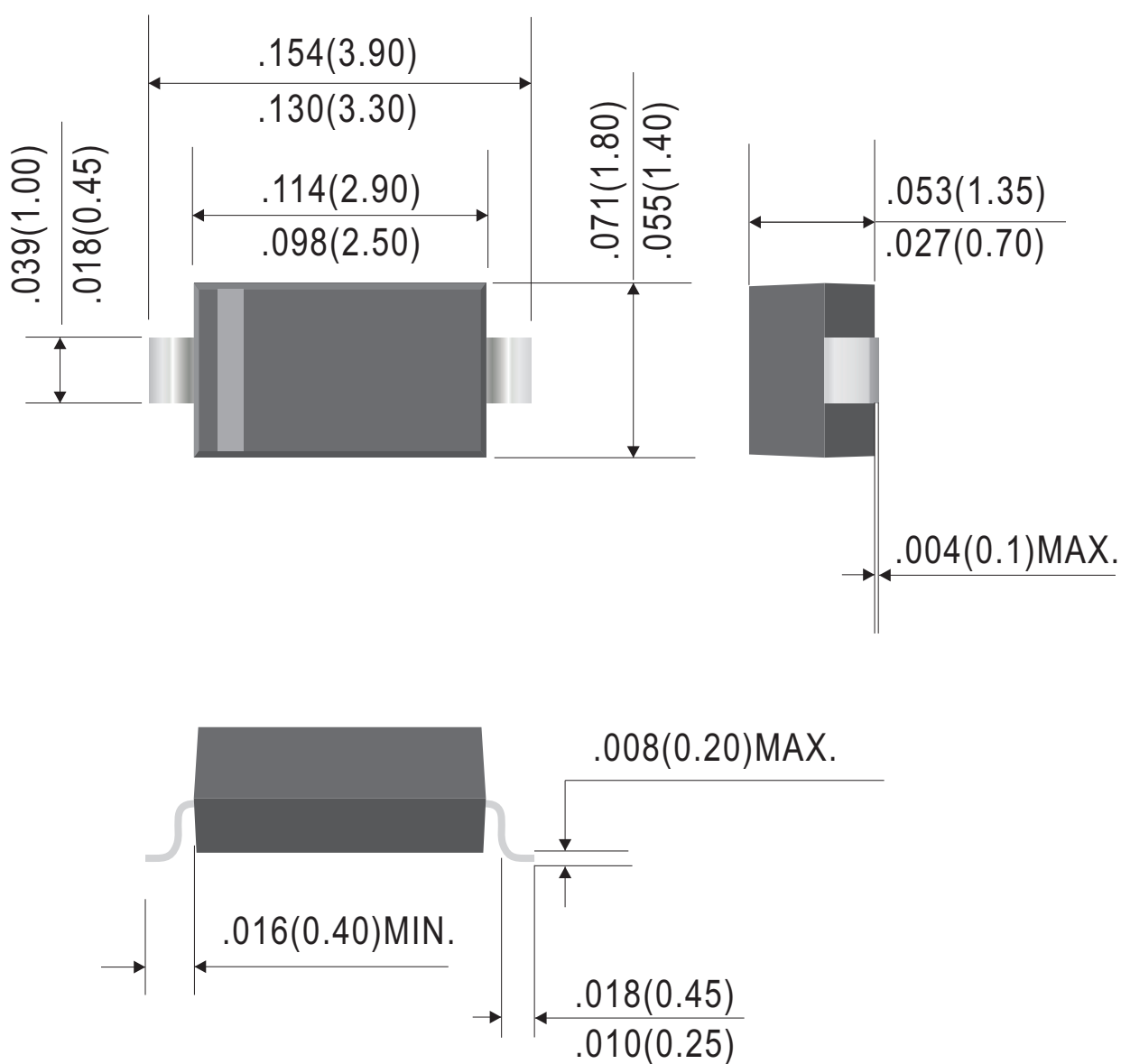


## SOD-123 Plastic-Encapsulate Diodes

1N4448W

### Outline Drawing

### SOD-123



Dimensions in inches and (millimeters)

Rev.D

**Ordering Information:**

| Device PN                                     | Packing                |
|-----------------------------------------------|------------------------|
| 1N4448W-T <sup>(1)</sup> G <sup>(2)</sup> -WS | Tape&Reel: 3 Kpcs/Reel |

Note: (1) Packing code, Tape&Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

**\*\*\*Disclaimer\*\*\***

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