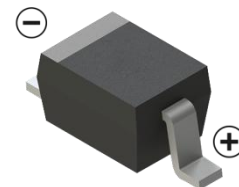
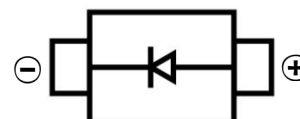


**SWITCHING DIODE****FEATURES**

- Fast Switching
- Low Reverse Current
- Surface Mount device
- For General Purpose Switching Applications

**SOD-323****MECHANICAL DATA**

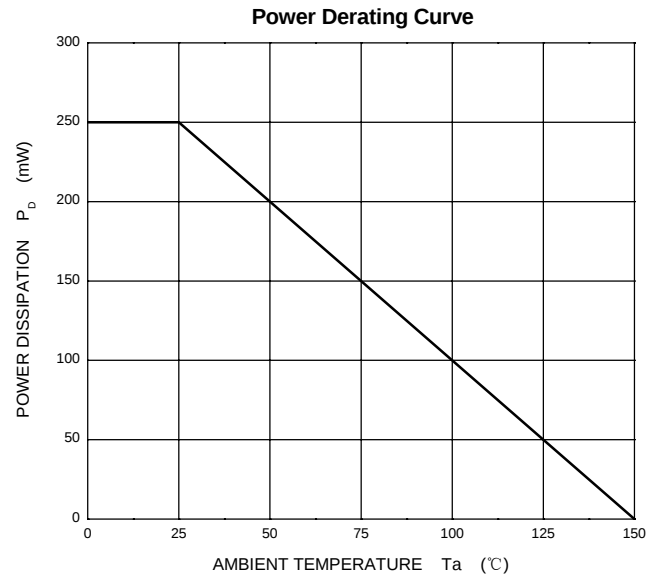
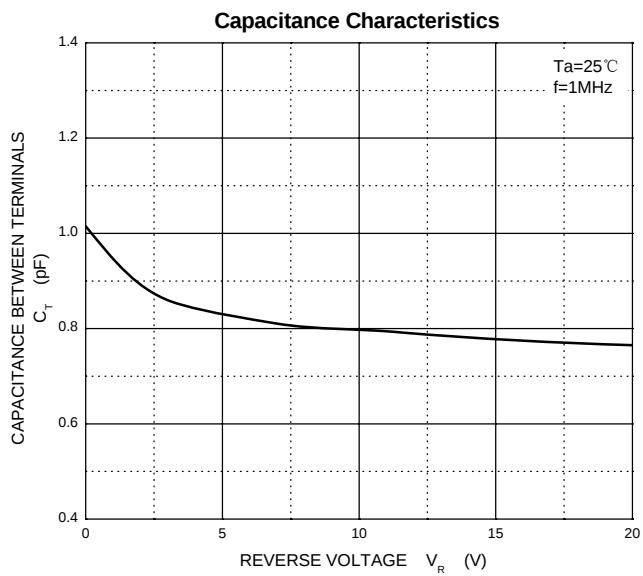
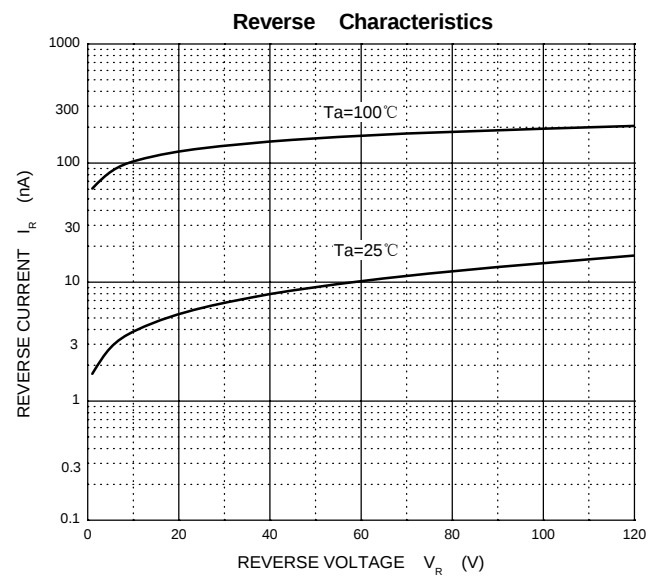
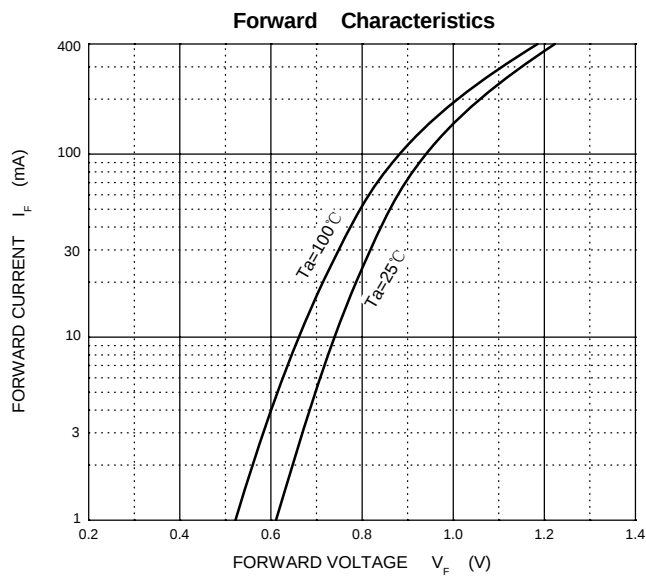
- Case: SOD-323
- Case Material: Molded Plastic. UL Flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.008 grams (approximate)

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

| Parameter                                                        | Symbol          | Value      | Unit                 |
|------------------------------------------------------------------|-----------------|------------|----------------------|
| Non-Repetitive Peak Reverse Voltage                              | $V_{RM}$        | 250        | V                    |
| DC Blocking Reverse Voltage                                      | $V_R$           | 200        | V                    |
| RMS Reverse Voltage                                              | $V_{R(RMS)}$    | 140        | V                    |
| Average Rectified Output Current                                 | $I_O$           | 200        | mA                   |
| Non-Repetitive Peak Forward Surge Current @ $t_{@}=8.3\text{ms}$ | $I_{FSM}$       | 2.0        | A                    |
| Power Dissipation                                                | $P_D$           | 250        | mW                   |
| Thermal Resistance From Junction To Ambient                      | $R_{\theta JA}$ | 500        | $^{\circ}\text{C/W}$ |
| Junction Temperature                                             | $T_J$           | 150        | $^{\circ}\text{C}$   |
| Storage Temperature                                              | $T_{STG}$       | -55 ~ +150 | $^{\circ}\text{C}$   |

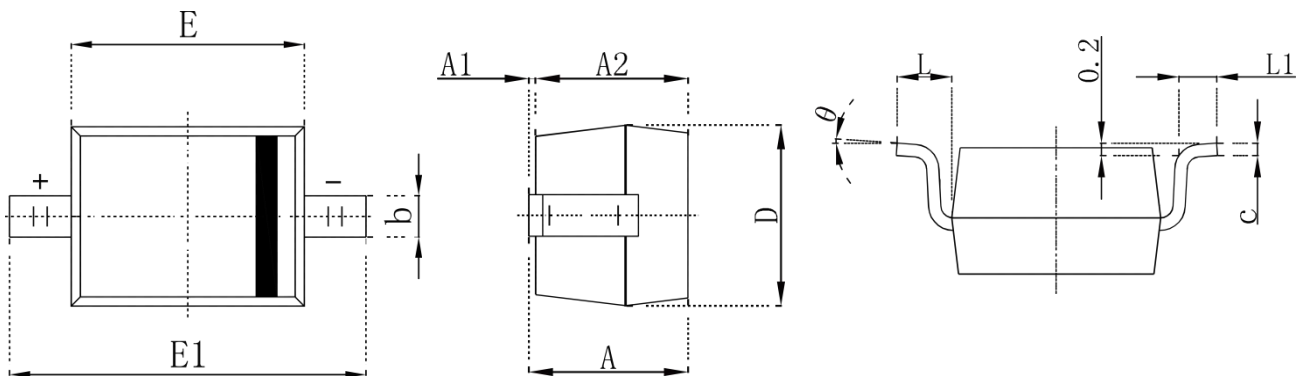
**ELECTRICAL CHARACTERISTICS ( $T_A = 25^{\circ}\text{C}$  unless otherwise specified)**

| Parameter                       | Symbol   | Min | Max | Unit          | Conditions                                                    |
|---------------------------------|----------|-----|-----|---------------|---------------------------------------------------------------|
| Forward voltage                 | $V_F$    |     | 1   | V             | $I_F=100\text{mA}$                                            |
| Reverse voltage leakage current | $I_R$    |     | 0.1 | $\mu\text{A}$ | $V_R=200\text{V}$                                             |
| Diode capacitance               | $C_D$    |     | 5   | pF            | $V_R=0\text{V}, f=1\text{MHz}$                                |
| Reverse recovery time           | $T_{rr}$ |     | 50  | nS            | $I_F=I_R=30\text{mA}$ $I_{rr}=0.1 \times I_R$ $R_L=100\Omega$ |

**SWITCHING DIODE****Typical Characteristics**

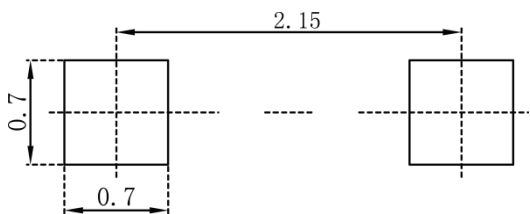
SWITCHING DIODE

**SOD-323 Package Outline Dimensions**



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      |                           | 1.000 |                      | 0.039 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.800                     | 0.900 | 0.031                | 0.035 |
| b      | 0.250                     | 0.350 | 0.010                | 0.014 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E      | 1.600                     | 1.800 | 0.063                | 0.071 |
| E1     | 2.250                     | 2.750 | 0.100                | 0.108 |
| L      | 0.475 REF                 |       | 0.019 REF            |       |
| L1     | 0.250                     | 0.400 | 0.010                | 0.016 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

**SOD-323 Suggested Pad Layout**



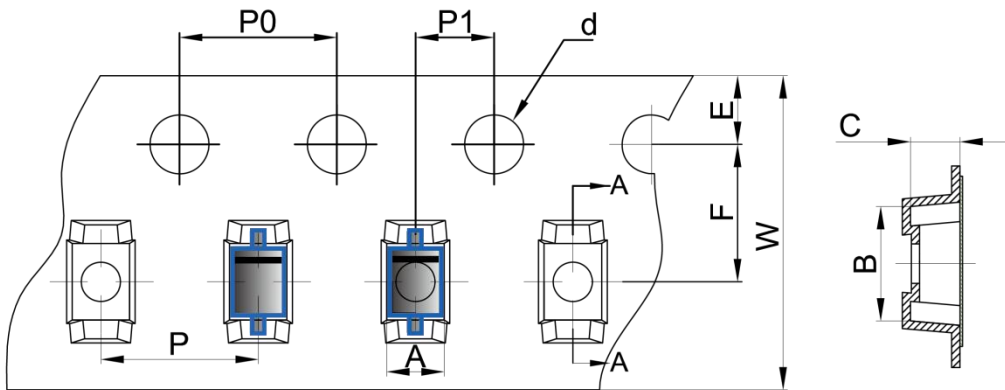
**Note:**

- 1. Controlling dimension: in millimeters
- 2. General tolerance:  $\pm 0.05\text{mm}$
- 3. The pad layout is for reference purposes only

SWITCHING DIODE

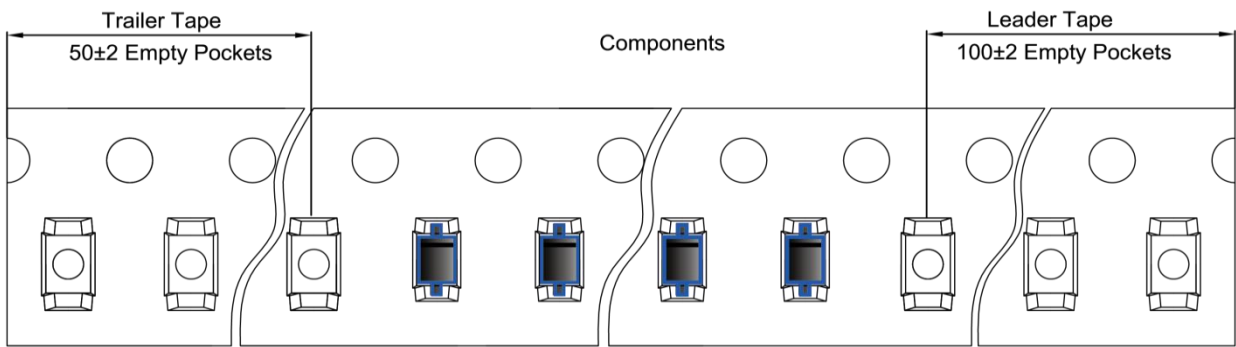
**SOD-323 Tape and Reel**

**SOD-323 Embossed Carrier Tape**

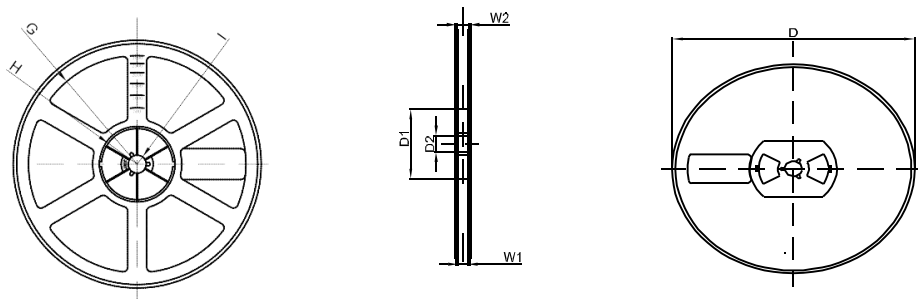


|           | DIMENSIONS ARE IN MILLIMETER |      |      |       |      |      |      |      |      |      |
|-----------|------------------------------|------|------|-------|------|------|------|------|------|------|
| TYPE      | A                            | B    | C    | d     | E    | F    | P0   | P    | P1   | W    |
| SOD-323   | 1.48                         | 3.3  | 1.25 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |
| TOLERANCE | ±0.1                         | ±0.1 | ±0.1 | ±0.1  | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 |

**SOD-323 Tape Leader and Trailer**



**SOD-323 Reel**



|             | DIMENSIONS ARE IN MILLIMETER |       |       |     |        |       |      |       |
|-------------|------------------------------|-------|-------|-----|--------|-------|------|-------|
| REEL OPTION | D                            | D1    | D2    | G   | H      | I     | W1   | W2    |
| 7" DIA      | Ø178                         | 54.40 | 13.00 | R78 | R25.60 | R6.50 | 9.50 | 12.30 |
| TOLERANCE   | ±2                           | ±1    | ±1    | ±1  | ±1     | ±1    | ±1   | ±1    |