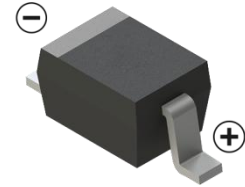


SWITCHING DIODE

**FEATURES**

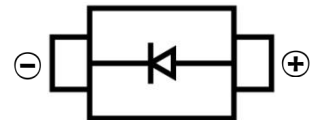
- Fast Switching
- Low Reverse Current
- Surface Mount device
- For General Purpose Switching Applications



**SOD-323**

**MECHANICAL DATA**

- Case: SOD-323
- Case Material: Molded Plastic. UL Flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)



**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

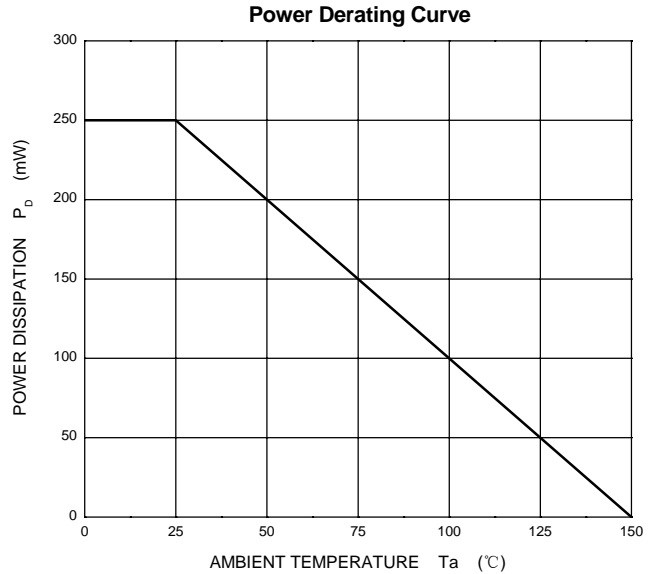
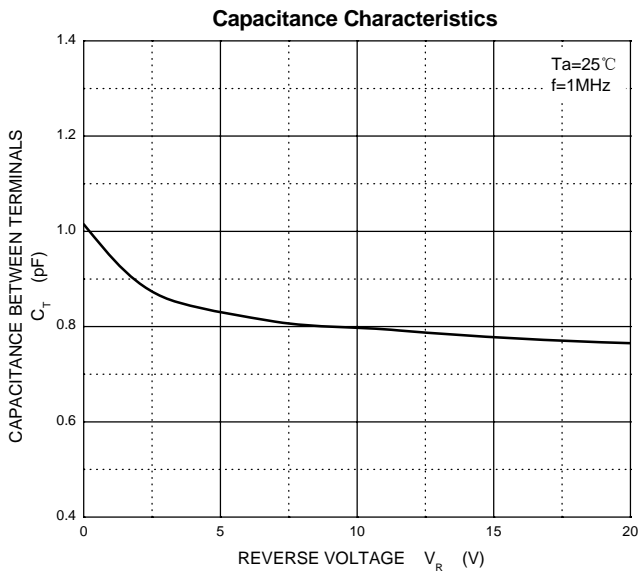
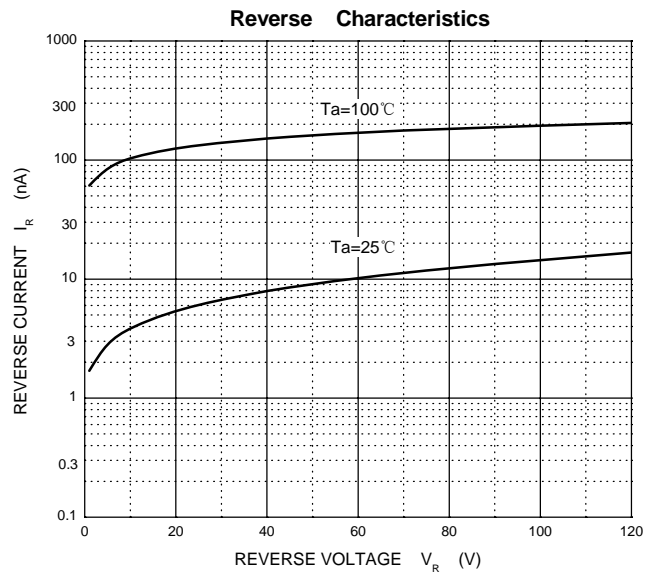
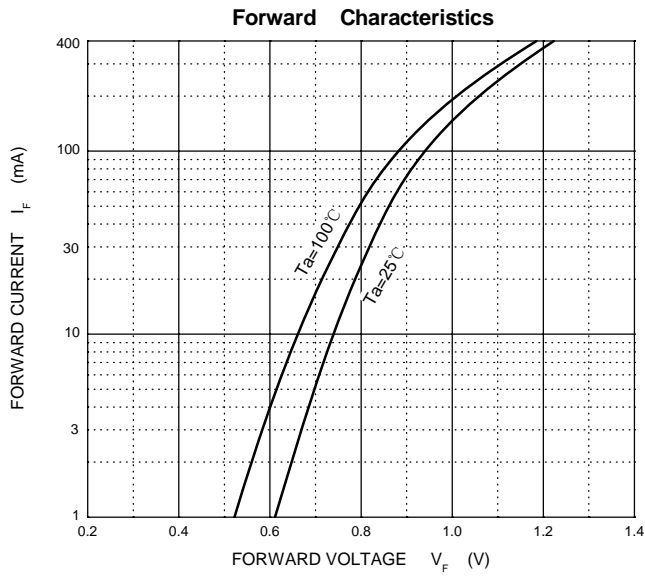
| Parameter  | Symbol              | Value     | Unit |
|--|---------------------|-----------|------|
| Non-Repetitive Peak Reverse Voltage                | V <sub>RM</sub>     | 250       | V    |
| DC Blocking Reverse Voltage                        | V <sub>R</sub>      | 200       | V    |
| RMS Reverse Voltage                                | V <sub>R(RMS)</sub> | 140       | V    |
| Average Rectified Output Current                   | I <sub>O</sub>      | 200       | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | I <sub>FSM</sub>    | 2.0       | A    |
| Power Dissipation                                  | P <sub>D</sub>      | 250       | mW   |
| Thermal Resistance From Junction To Ambient        | R <sub>θJA</sub>    | 500       | °C/W |
| Junction Temperature                               | T <sub>J</sub>      | 150       | °C   |
| Storage Temperature                                | T <sub>STG</sub>    | -55 ~+150 | °C   |

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

| Parameter                       | Symbol          | Min | Max | Unit | Conditions  |
|---------------------------------|-----------------|-----|-----|------|---|
| Forward voltage                 | V <sub>F</sub>  |     | 1   | V    | I <sub>F</sub> =100mA   |
| Reverse voltage leakage current | I <sub>R</sub>  |     | 0.1 | uA   | V <sub>R</sub> =200V  |
| Diode capacitance               | C <sub>D</sub>  |     | 5   | pF   | V <sub>R</sub> =0V, f=1MHz  |
| Reverse recovery time           | T <sub>rr</sub> |     | 50  | nS   | I <sub>F</sub> =I <sub>R</sub> =30mA I <sub>rr</sub> =0.1×I <sub>R</sub> R <sub>L</sub> =100Ω |

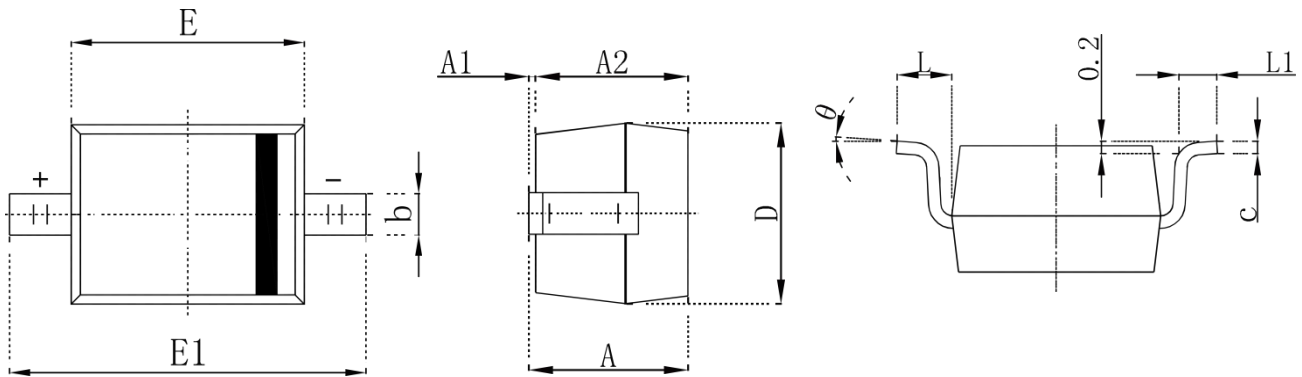
SWITCHING DIODE

Typical Characteristics



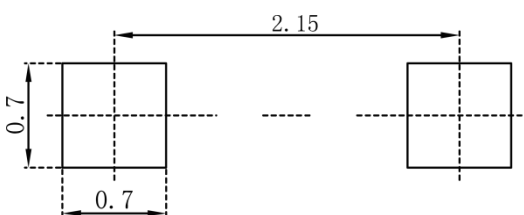
SWITCHING DIODE

**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**



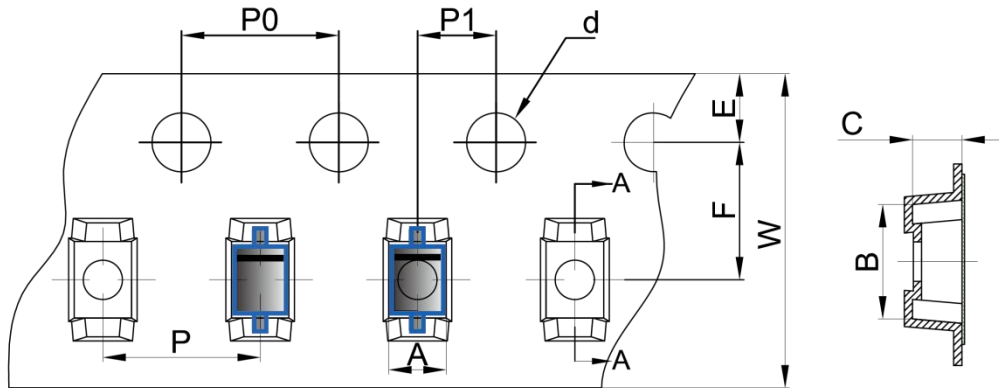
**Note:**

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

SWITCHING DIODE

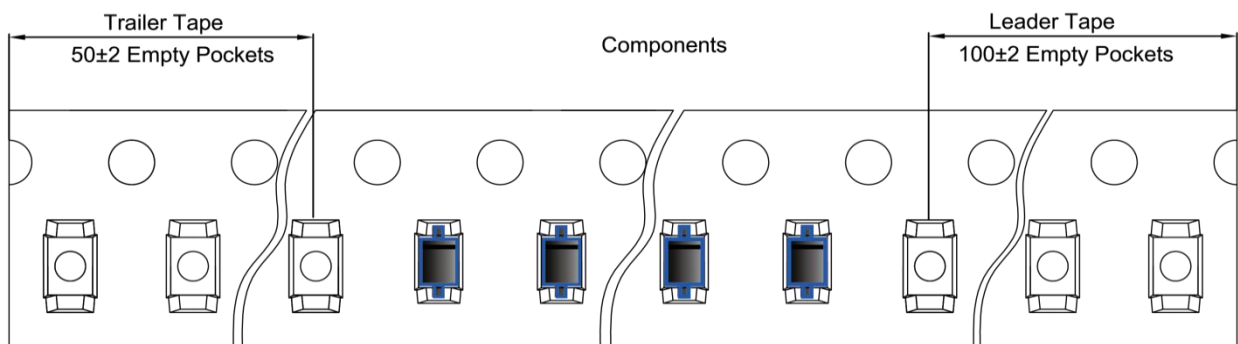
**SOD-323 Tape and Reel**

**SOD-323 Embossed Carrier Tape**

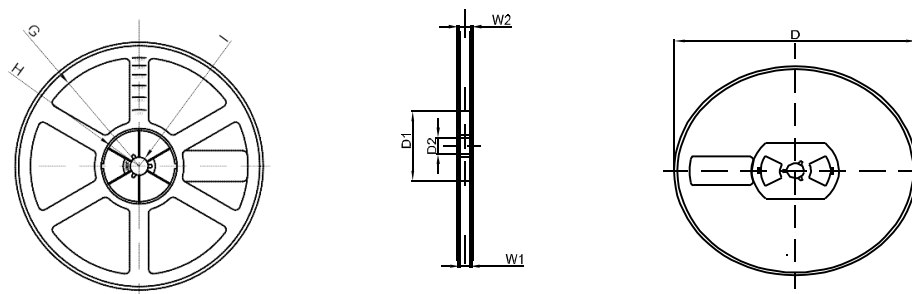


| DIMENSIONS ARE IN MILLIMETER |      |      |      |       |      |      |      |      |      |      |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| TYPE                         | A    | B    | C    | d     | E    | F    | P0   | P    | P1   | 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    |

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