

### Silicon Epitaxial Planar Switching Diode

#### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

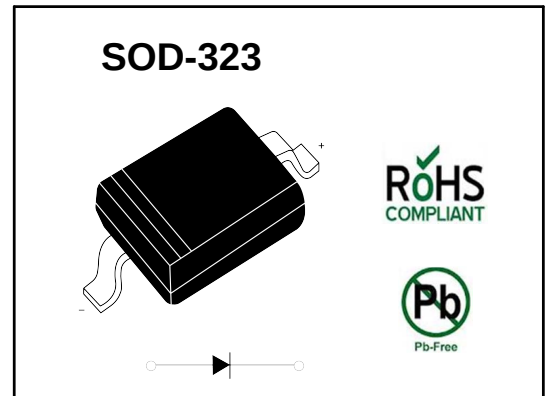
#### Features

- Small plastic package suitable for surface mounted design
- High reliability with high surge current handling capability

#### Applications

- High speed switching

Marking Code: "A"



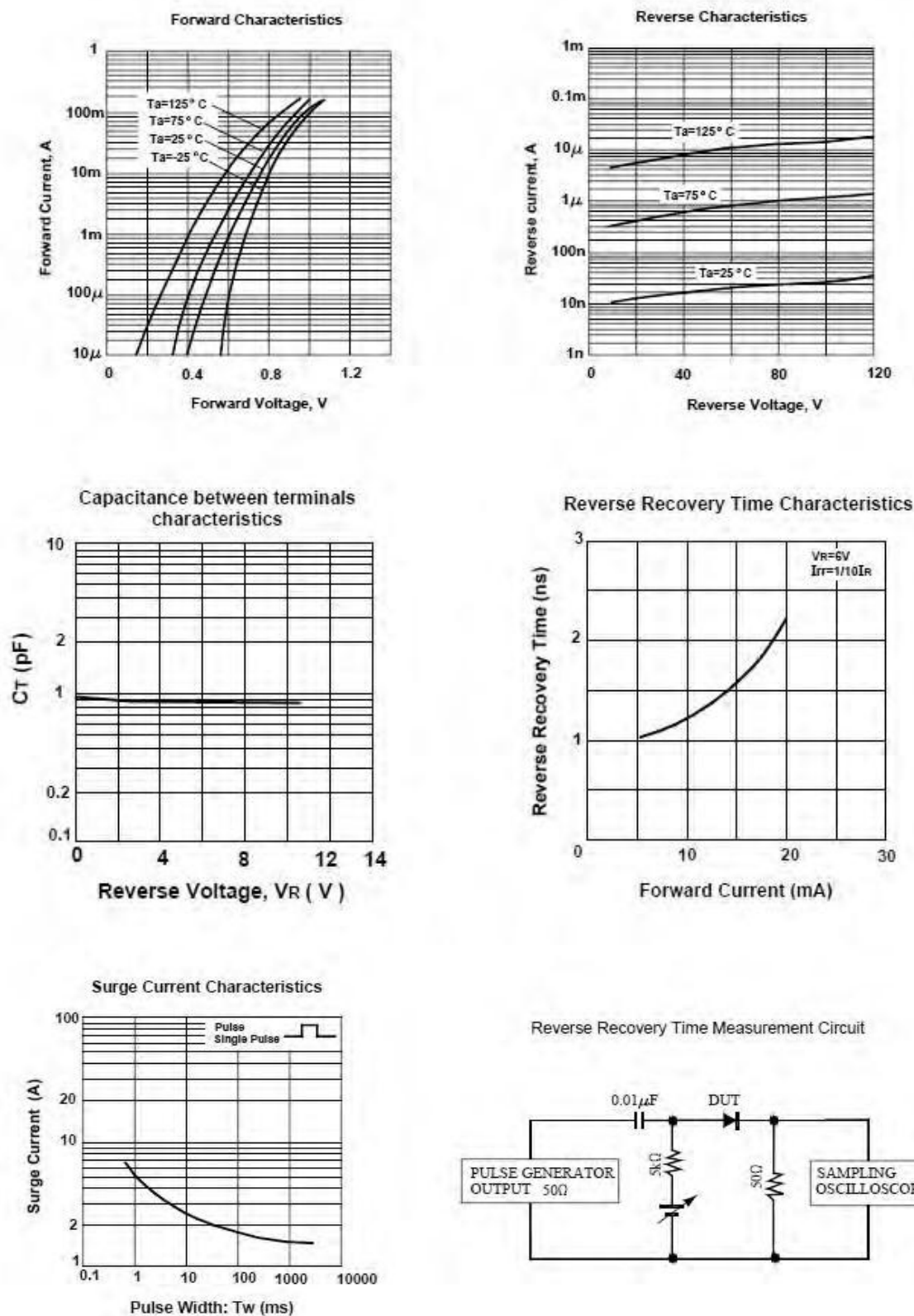
#### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                         | Symbol      | Value         | Unit             |
|-----------------------------------|-------------|---------------|------------------|
| Peak Reverse Voltage              | $V_{RM}$    | 90            | V                |
| Reverse Voltage                   | $V_R$       | 80            | V                |
| Average Rectified Forward Current | $I_{F(AV)}$ | 100           | mA               |
| Peak Forward Current              | $I_{FM}$    | 225           | mA               |
| Surge Forward Current (1 s)       | $I_{FSM}$   | 500           | mA               |
| Junction Temperature              | $T_j$       | 150           | $^\circ\text{C}$ |
| Storage Temperature Range         | $T_{stg}$   | - 55 to + 150 | $^\circ\text{C}$ |

#### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

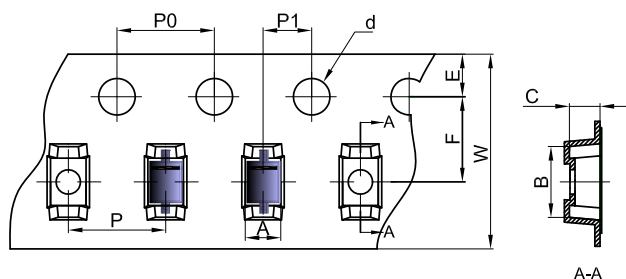
| Parameter                                                                                   | Symbol   | Max. | Unit          |
|---------------------------------------------------------------------------------------------|----------|------|---------------|
| Forward Voltage<br>at $I_F = 100\text{ mA}$                                                 | $V_F$    | 1.2  | V             |
| Reverse Current<br>at $V_R = 80\text{ V}$                                                   | $I_R$    | 0.1  | $\mu\text{A}$ |
| Capacitance between Terminals<br>at $V_R = 0.5\text{ V}$ , $f = 1\text{ MHz}$               | $C_T$    | 3    | pF            |
| Reverse Recovery Time<br>at $V_R = 6\text{ V}$ , $I_F = 10\text{ mA}$ , $R_L = 100\ \Omega$ | $t_{rr}$ | 4    | ns            |

## Typical Characteristics



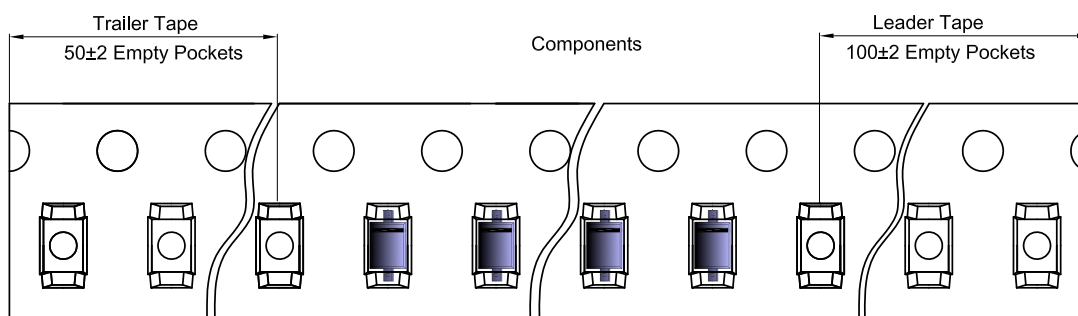
## SOD-323 Tape and Reel

### SOD-323 Embossed Carrier Tape

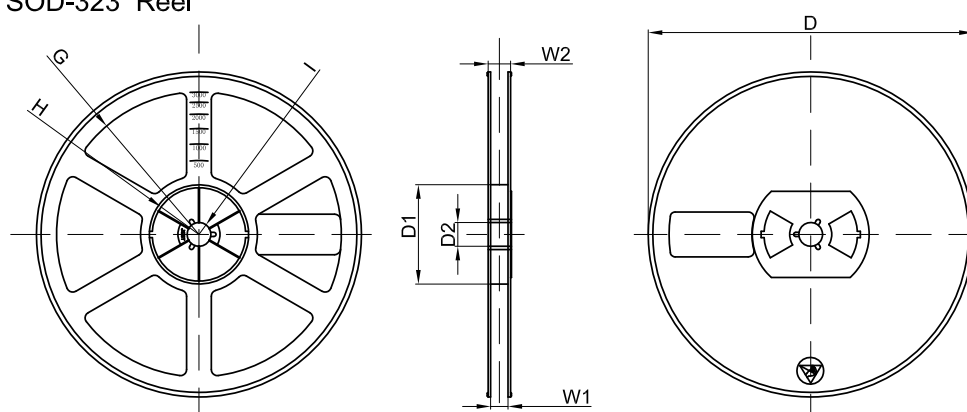


| Dimensions are in millimeter |      |     |      |       |      |      |      |      |      |      |
|------------------------------|------|-----|------|-------|------|------|------|------|------|------|
| Pkg type                     | A    | B   | C    | d     | E    | F    | P0   | P    | P1   | W    |
| SOD-323                      | 1.48 | 3.3 | 1.25 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

### SOD-323 Tape Leader and Trailer



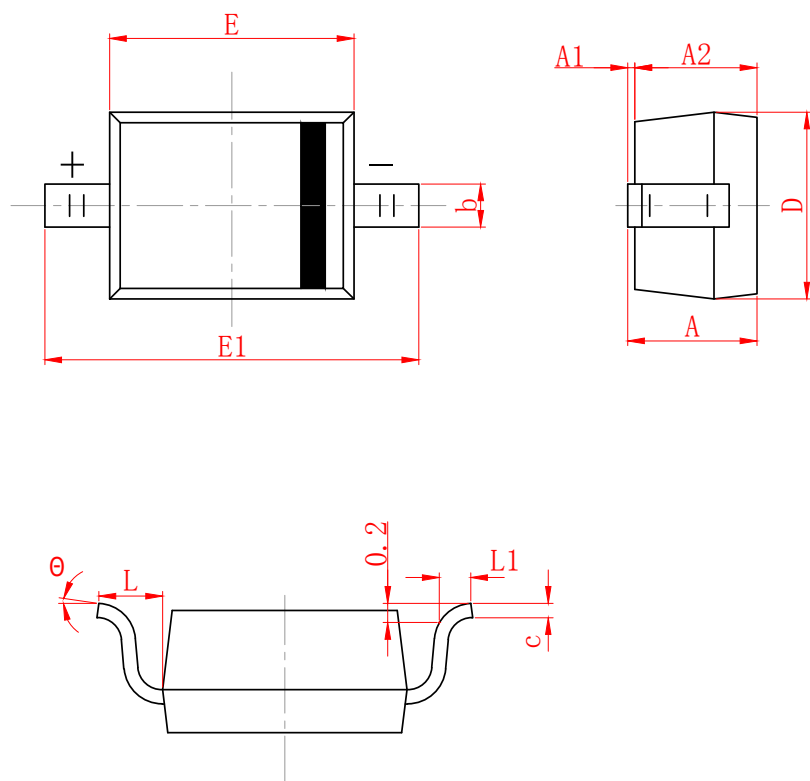
### SOD-323 Reel



| Dimensions are in millimeter |         |       |       |        |        |       |      |       |
|------------------------------|---------|-------|-------|--------|--------|-------|------|-------|
| Reel Option                  | D       | D1    | D2    | G      | H      | I     | W1   | W2    |
| 7"Dia                        | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL     | Reel Size | Box        | Box Size(mm) | Carton      | Carton Size(mm) | G.W.(kg) |
|----------|-----------|------------|--------------|-------------|-----------------|----------|
| 3000 pcs | 7 inch    | 45,000 pcs | 203×203×195  | 180,000 pcs | 438×438×220     |          |

## SOD-323 Package Outline Dimensions



| SYMBOL | MILLIMETER  |       |
|--------|-------------|-------|
|        | MIN         | MAX   |
| A      |             | 1.000 |
| A1     | 0.000       | 0.100 |
| A2     | 0.800       | 0.900 |
| b      | 0.250       | 0.350 |
| c      | 0.008       | 0.150 |
| D      | 1.200       | 1.400 |
| E      | 1.600       | 1.800 |
| E1     | 2.500       | 2.700 |
| L      | 0.475 (REF) |       |
| L1     | 0.250       | 0.400 |
| θ      | 0°          | 8°    |

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