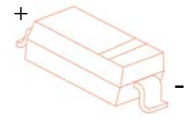


**FEATURES**

- Extremely Fast Switching Speed
- Low Forward Voltage

**SOD-323****MARKING: L9****Maximum Ratings @T<sub>A</sub>=25°C**

| Parameter                                             | Symbol          | Limit      | Unit |
|-------------------------------------------------------|-----------------|------------|------|
| Non-Repetitive Peak Reverse Voltage                   | $V_{RM}$        | 30         | V    |
| DC Blocking Voltage                                   | $V_R$           | 21         | V    |
| Average Rectified Output Current                      | $I_O$           | 100        | mA   |
| Forward Continuous Current                            | $I_F$           | 200        | mA   |
| Non-repetitive Peak Forward Surge Current<br>@t=8.3ms | $I_{FSM}$       | 600        | mA   |
| Power Dissipation                                     | $P_D$           | 200        | mW   |
| Thermal Resistance Junction to Ambient                | $R_{\theta JA}$ | 500        | °C/W |
| Operating Junction Temperature Range                  | $T_J$           | 125        | °C   |
| Storage Temperature Range                             | $T_{STG}$       | -55 ~ +150 | °C   |

**Electrical Characteristics @T<sub>A</sub>=25°C**

| Parameter                 | Symbol      | Min. | Typ. | Max. | Unit    | Conditions                                         |
|---------------------------|-------------|------|------|------|---------|----------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 30   |      |      | V       | $I_R=100\mu A$                                     |
| Forward voltage           | $V_{F1}$    |      |      | 0.24 | V       | $I_F=0.1mA$                                        |
|                           | $V_{F2}$    |      |      | 0.32 | V       | $I_F=1mA$                                          |
|                           | $V_{F3}$    |      |      | 0.40 | V       | $I_F=10mA$                                         |
|                           | $V_{F4}$    |      |      | 0.50 | V       | $I_F=30mA$                                         |
|                           | $V_{F5}$    |      |      | 1    | V       | $I_F=100mA$                                        |
| Reverse current           | $I_R$       |      |      | 2    | $\mu A$ | $V_R=25V$                                          |
| Diode Capacitance         | $C_D$       |      |      | 10   | pF      | $V_R=1V, f=1MHz$                                   |
| Reverse Recovery Time     | $t_{rr}$    |      |      | 5    | nS      | $I_F=I_R=10mA$<br>$I_{rr}=0.1X I_R, R_L=100\Omega$ |



## Typical Characteristics

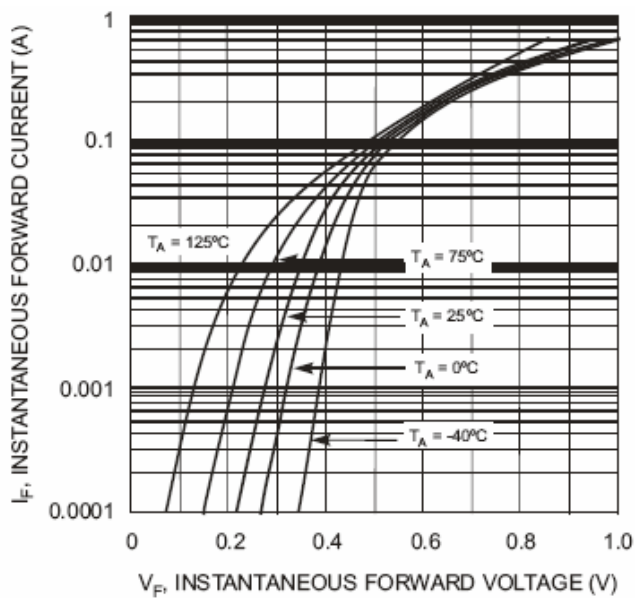


Fig. 1 Forward Characteristics

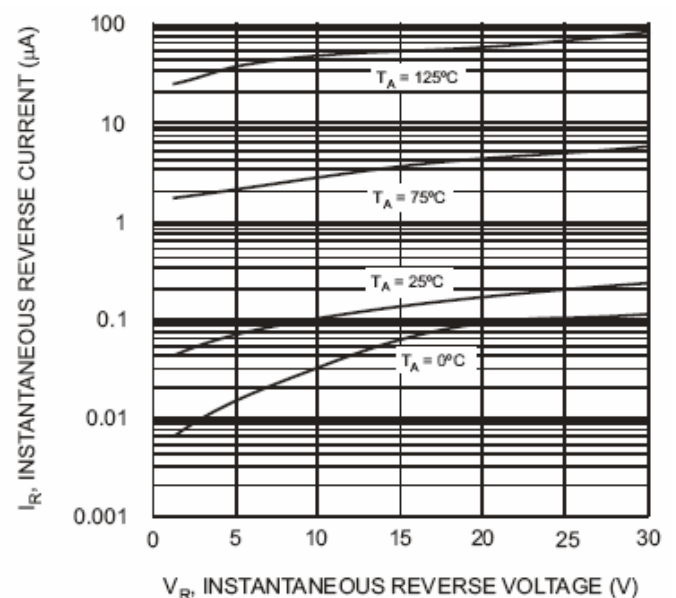


Fig. 2 Typical Reverse Characteristics

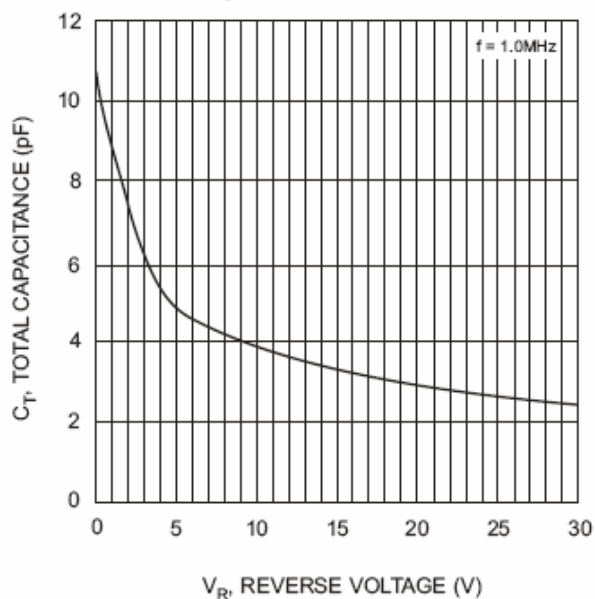


Fig. 3 Typical Capacitance vs. Reverse Voltage

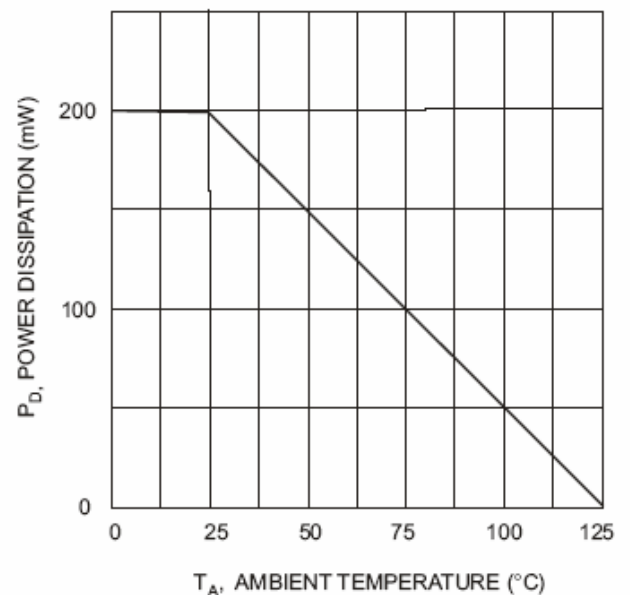
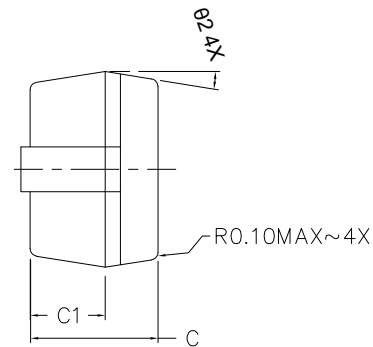
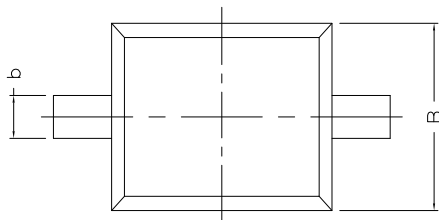
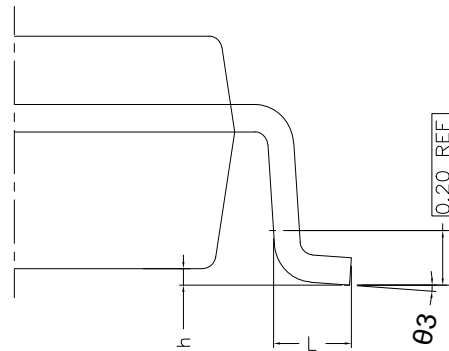
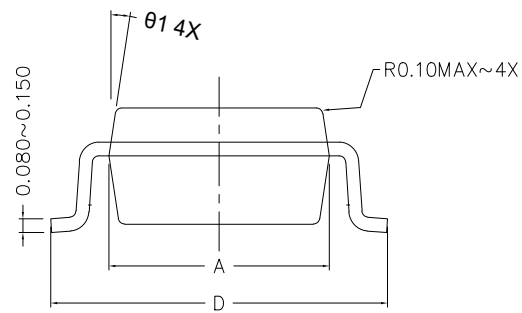
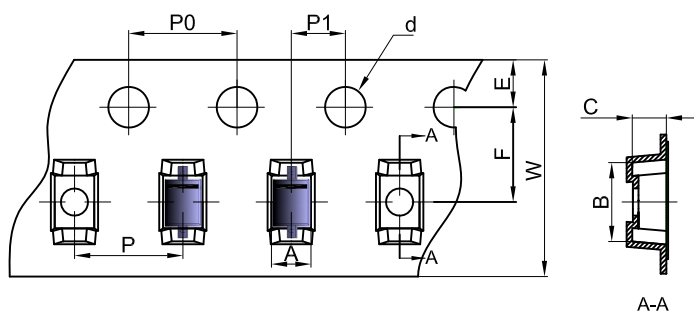


Fig. 4 Power Derating Curve

**SOD-323 Package Outline Dimensions (Units: mm)**

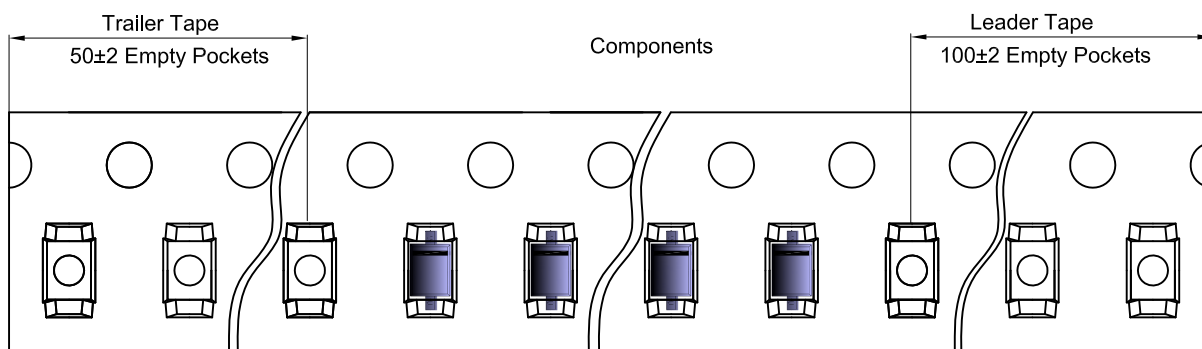
| COMMON DIMENSIONS<br>(UNITS OF MEASURE IS mm) |         |        |       |
|-----------------------------------------------|---------|--------|-------|
|                                               | MIN     | NORMAL | MAX   |
| A                                             | 1.600   | 1.700  | 1.800 |
| B                                             | 1.200   | 1.300  | 1.400 |
| C                                             | 0.750   | 0.850  | 0.950 |
| C1                                            | 0.450   | 0.500  | 0.550 |
| D                                             | 2.450   | 2.600  | 2.750 |
| L                                             | 0.200   | 0.300  | 0.400 |
| b                                             | 0.200   | 0.300  | 0.400 |
| h                                             | 0.010   | 0.050  | 0.100 |
| θ1                                            | 9° TYPE |        |       |
| θ2                                            | 9° TYPE |        |       |
| θ3                                            | 0° ~ 8° |        |       |

# SOD-323 Embossed Carrier Tape

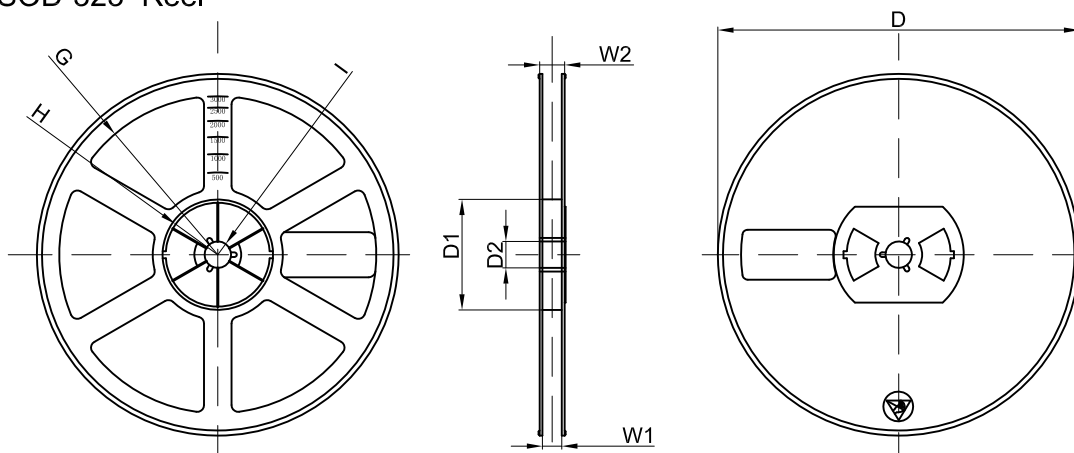


| Dimensions are in millimeter |      |     |      |       |      |      |      |      |      |      |
|------------------------------|------|-----|------|-------|------|------|------|------|------|------|
| Pkg type                     | A    | B   | C    | d     | E    | F    | P0   | P    | P1   | 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 | 192x182x182  | 180,000 pcs | 400x385x205     |          |