

## Features

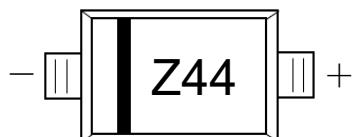
- Low Leakage Current
- Ideal for Surface Mounted Applications



SOD-123 top view



Schematic diagram



Marking and pin assignment



Pb-Free



Halogen-Free

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

| Symbol          | Parameter                                                   | Value    | Unit                 |
|-----------------|-------------------------------------------------------------|----------|----------------------|
| $V_{RM}$        | Non-Repetitive Peak Reverse Voltage                         | 400      | V                    |
| $V_R$           | Reverse Voltage                                             | 400      | V                    |
| $V_{R(RMS)}$    | RMS Reverse Voltage                                         | 280      | V                    |
| $I_O$           | Average Rectified Output Current                            | 1        | A                    |
| $I_{FSM}$       | Non-repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$ | 7.5      | A                    |
| $P_D$           | Power Dissipation                                           | 350      | mW                   |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient                 | 357      | $^{\circ}\text{C/W}$ |
| $T_J, T_{stg}$  | Operation Junction and Storage Temperature Range            | -55~+150 | $^{\circ}\text{C}$   |

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

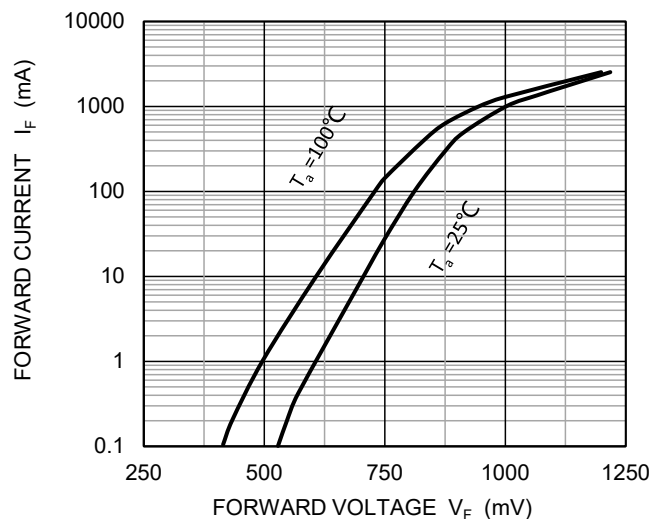
| Symbol     | Parameter         | Condition                      | Min | Typ | Max | Unit          |
|------------|-------------------|--------------------------------|-----|-----|-----|---------------|
| $V_{(BR)}$ | Reverse voltage   | $I_R=100\mu\text{A}$           | 400 | --  | --  | V             |
| $I_R$      | Reverse current   | $V_R=400\text{V}$              | --  | --  | 5   | $\mu\text{A}$ |
| $V_F$      | Forward voltage   | $I_F=1\text{A}$                | --  | --  | 1.1 | V             |
| $C_{tot}$  | Total capacitance | $V_R=4\text{V}, f=1\text{MHz}$ | --  | --  | 15  | pF            |

## Ordering Information (Example)

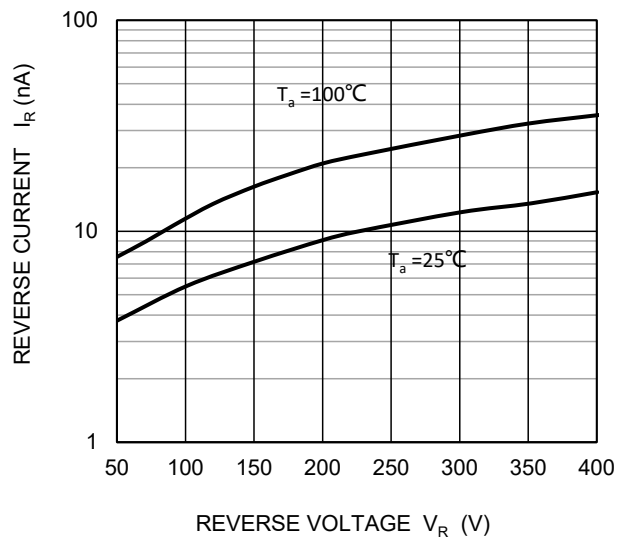
| Type    | Package | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|---------|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| 2CZ4004 | SOD-123 | Z44     | 3,000                | 45,000                  | 180,000                    | 7"reel        |

## Typical Operating Characteristics

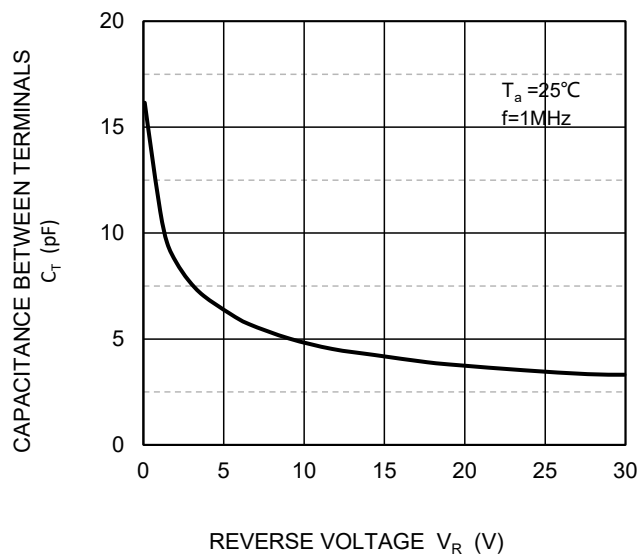
**Forward Characteristics**



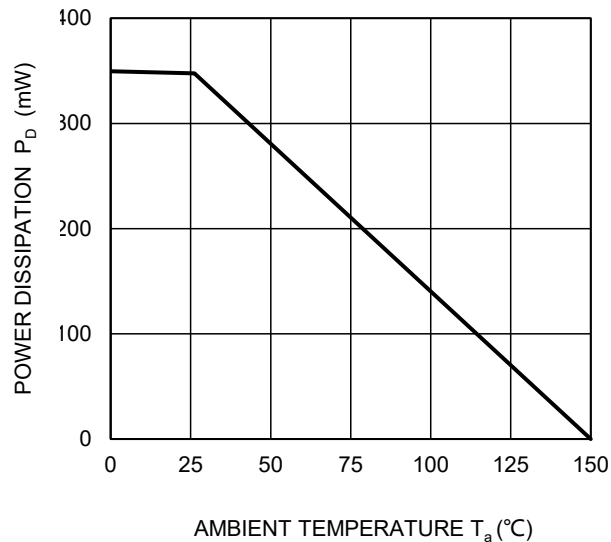
**Reverse Characteristics**



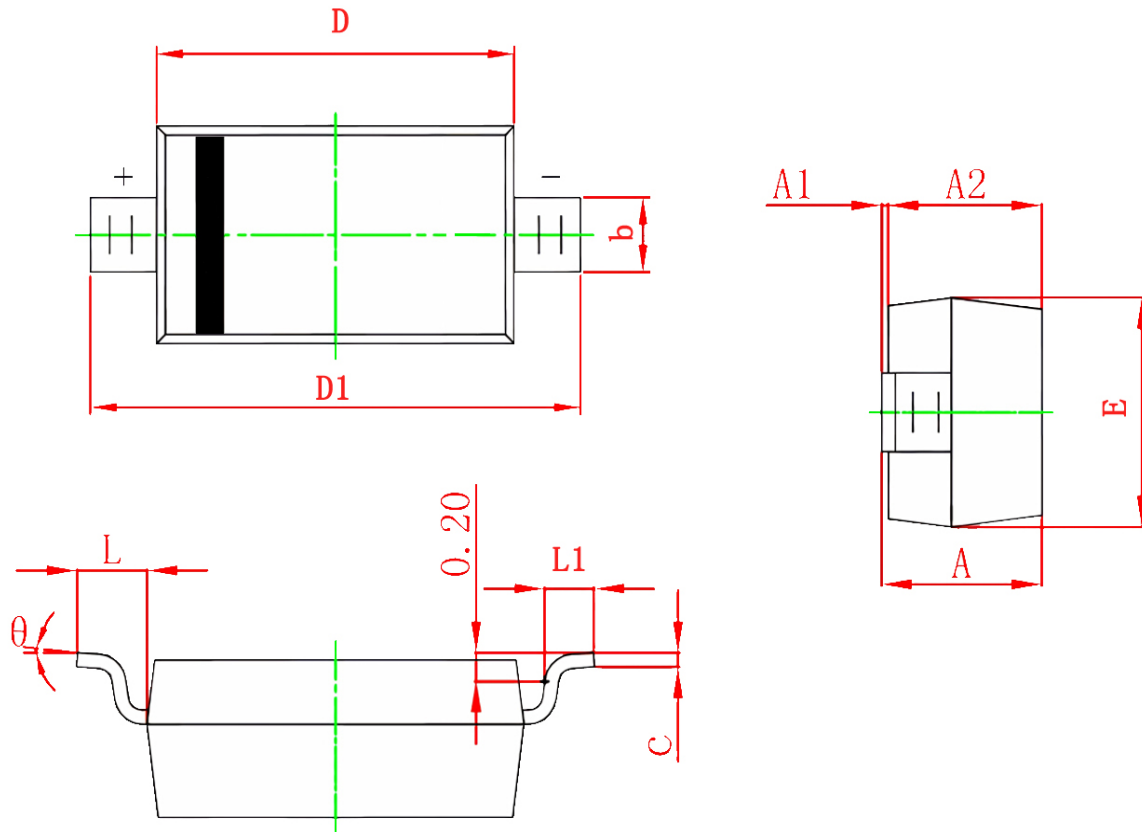
**Capacitance Characteristics**



**Power Derating Curve**



**SOD-123 Package information**



| Symbol | Dimensions in Millimeters(mm) |       | Dimensions In Inches |       |
|--------|-------------------------------|-------|----------------------|-------|
|        | Min                           | Max   | Min                  | Max   |
| A      | 1.050                         | 1.250 | 0.041                | 0.049 |
| A1     | 0.000                         | 0.100 | 0.000                | 0.004 |
| A2     | 1.050                         | 1.150 | 0.041                | 0.045 |
| b      | 0.450                         | 0.650 | 0.018                | 0.026 |
| c      | 0.080                         | 0.150 | 0.003                | 0.006 |
| D      | 2.600                         | 2.800 | 0.102                | 0.110 |
| D1     | 3.550                         | 3.850 | 0.140                | 0.152 |
| E      | 1.500                         | 1.700 | 0.059                | 0.067 |
| L      | 0.500 REF                     |       | 0.020 REF            |       |
| L1     | 0.250                         | 0.450 | 0.010                | 0.018 |
| θ      | 0°                            | 8°    | 0°                   | 8°    |