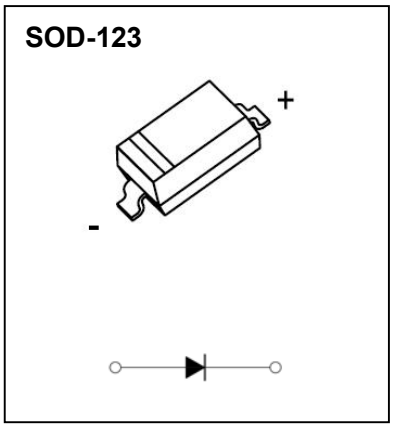
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

# SOD-123 Plastic-Encapsulate Diodes

## 2CZ4004

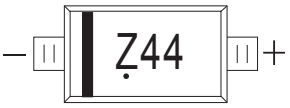
RECTIFICATION DIODE




**FEATURES**

- Low Leakage Current
- Ideal for Surface Mounted Applications

**MARKING:Z44**




The marking bar indicates the cathode
Solid dot = Green molding compound device.

**MAXIMUM RATINGS ($T_a$=25℃ unless otherwise noted)**

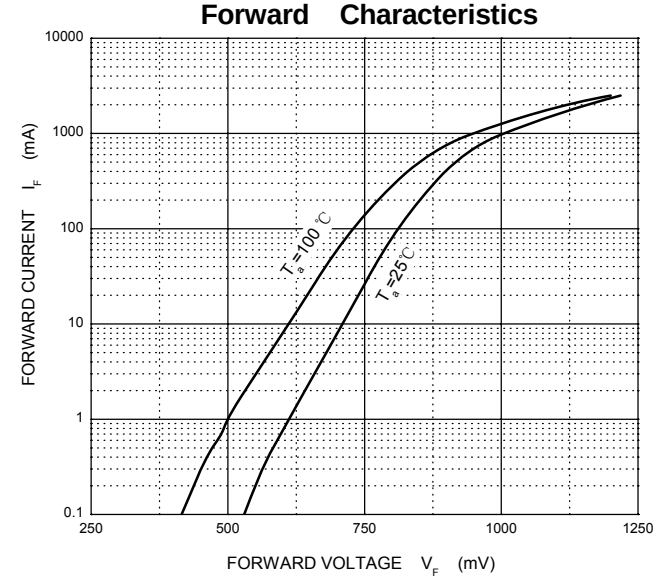
| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{RM}$ | Non-repetitive peak reverse voltage | 400 | V |
| $V_R$ | Reverse Voltage | | |
| $V_{R(RMS)}$ | RMS reverse voltage | 280 | V |
| $I_O$ | Average rectified output current | 1 | A |
| $I_{FSM}$ | Non-repetitive peak forward surge current @t=8.3ms | 7.5 | A |
| $P_D$ | Power dissipation | 350 | mW |
| $R_{\theta JA}$ | Thermal resistance from junction to ambient | 357 | ℃/W |
| $T_J$,$T_{stg}$ | Operation Junction and Storage Temperature Range | -55~+150 | ℃ |

**ELECTRICAL CHARACTERISTICS($T_a$=25℃ unless otherwise specified)**

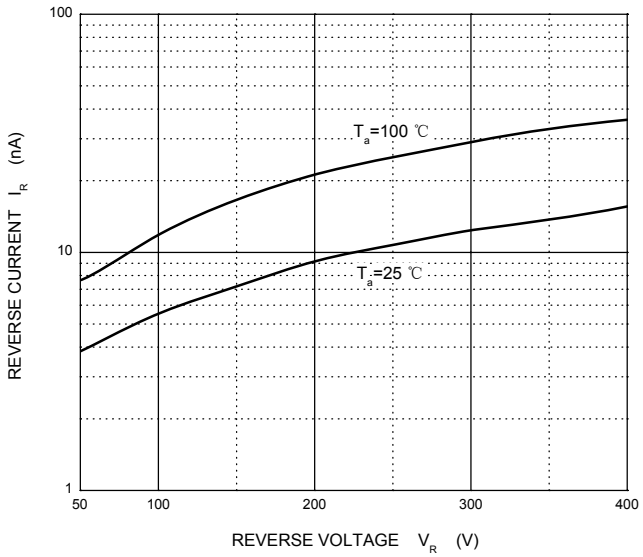
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Reverse voltage** | $V_{(BR)}$ | $I_R$=100μA | 400 | | | V |
| **Reverse current** | $I_R$ | $V_R$=400V | | | 5 | μA |
| **Forward voltage** | $V_F$ | $I_F$=1A | | | 1.1 | V |
| **Total capacitance** |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

## Typical Characteristics

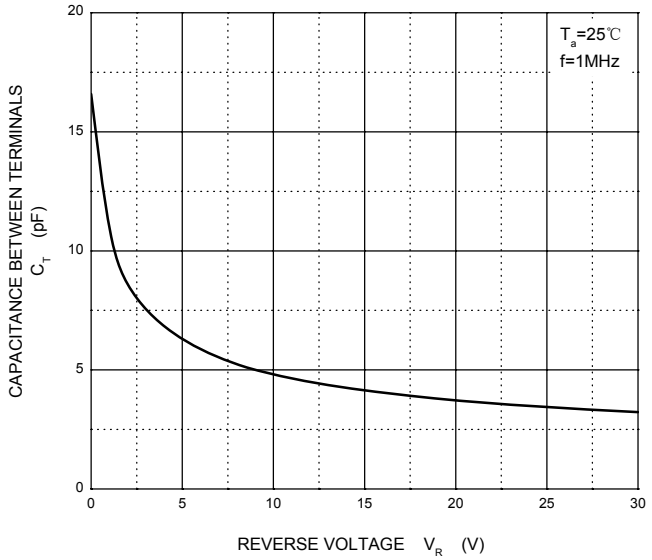
### Forward Characteristics



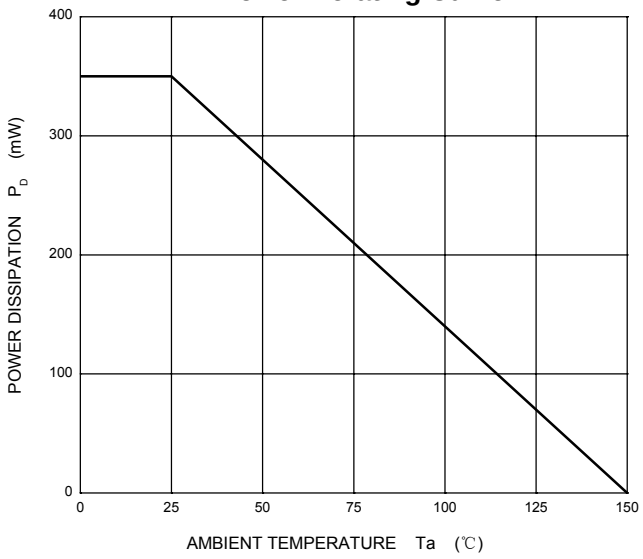

### Reverse Characteristics



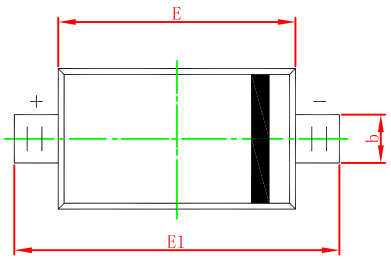

### Capacitance Characteristics

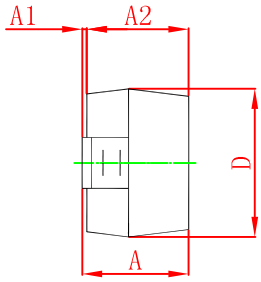


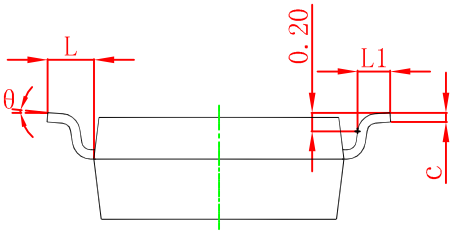

### Power Derating Curve



## SOD-123 Package Outline Dimensions

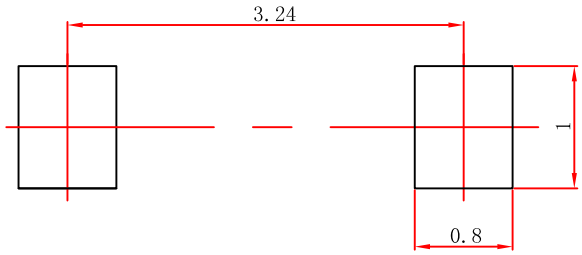



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 1.050 | 1.250 | 0.041 | 0.049 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 1.050 | 1.150 | 0.041 | 0.045 |
| b | 0.450 | 0.650 | 0.018 | 0.026 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 2.600 | 2.800 | 0.102 | 0.110 |
| E1 | 3.550 | 3.850 | 0.140 | 0.152 |
| L | 0.500 REF | | 0.020 REF | |
| L1 | 0.250 | 0.450 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |

## SOD-123 Suggested Pad Layout



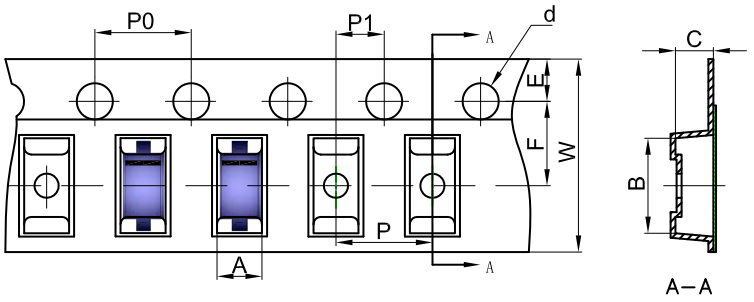

**Note:**
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

## SOD-123 Tape and Reel

### SOD-123 Embossed Carrier Tape

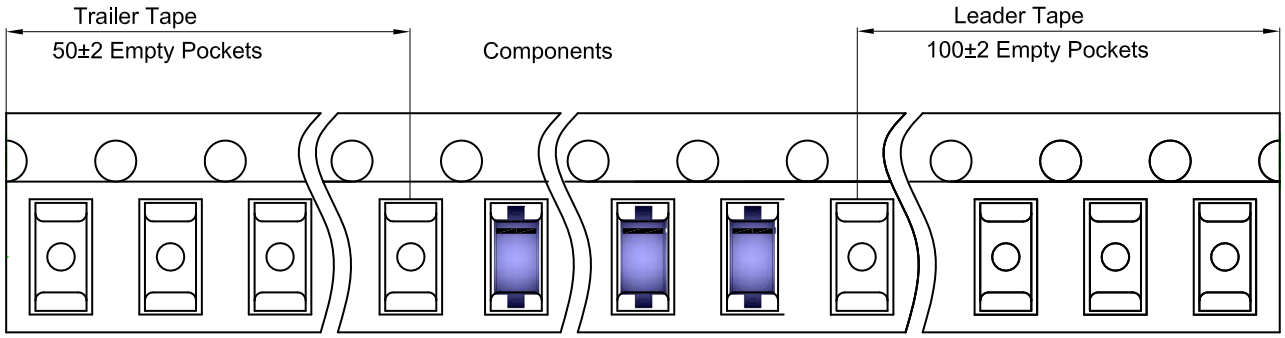



Packaging Description:

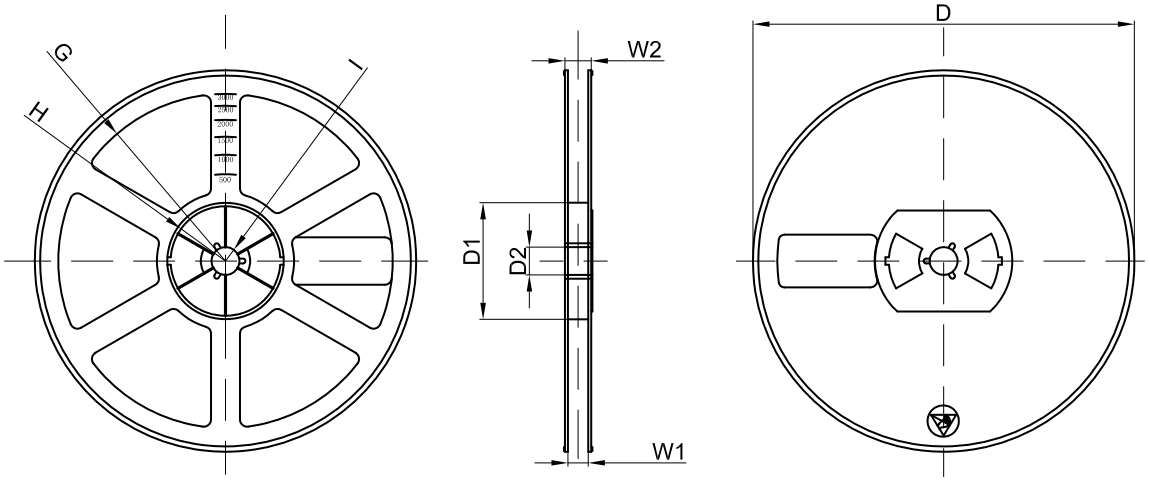
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

| Dimensions are in millimeter | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
| SOD-123 | 1.85 | 3.95 | 1.57 | Ø1.55 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

### SOD-123 Tape Leader and Trailer




### SOD-123 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 | |