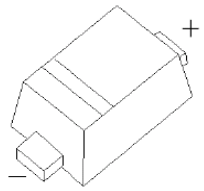
# SOD-523 Plastic-Encapsulate Diodes

**FEATURES**

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion

**SOD-523**





**MARKING:T4**



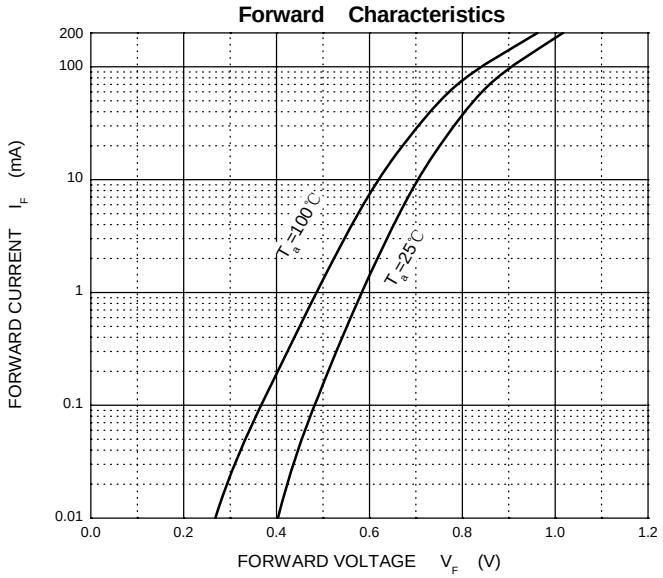

## MAXIMUM RATINGS（$T_a$=25℃ unless otherwise noted）

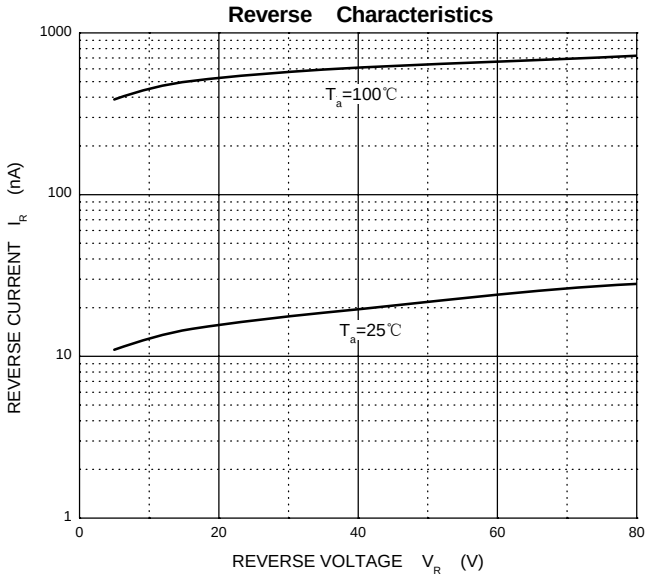
| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{RM}$ | Non-Repetitive Peak Reverse Voltage | 100 | V |
| $V_R$ | Reverse Voltage | 75 | V |
| $V_{RRM}$ | Peak Repetitive Reverse Voltage | | |
| $V_{RWM}$ | Working Peak Reverse Voltage | | |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 53 | V |
| $I_O$ | Average Rectified Output Current | 150 | mA |
| $I_{FM}$ | Forward Continuous Current | 300 | mA |
| $I_{FSM}$ | Non-repetitive Peak Forward Surge Current@t=8.3ms | 2 | A |
| $P_D$ | Power Dissipation | 150 | mW |
| $R_{\Theta JA}$ | Thermal Resistance from Junction to Ambient | 833 | ℃/W |
| $T_j$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~+150 | ℃ |

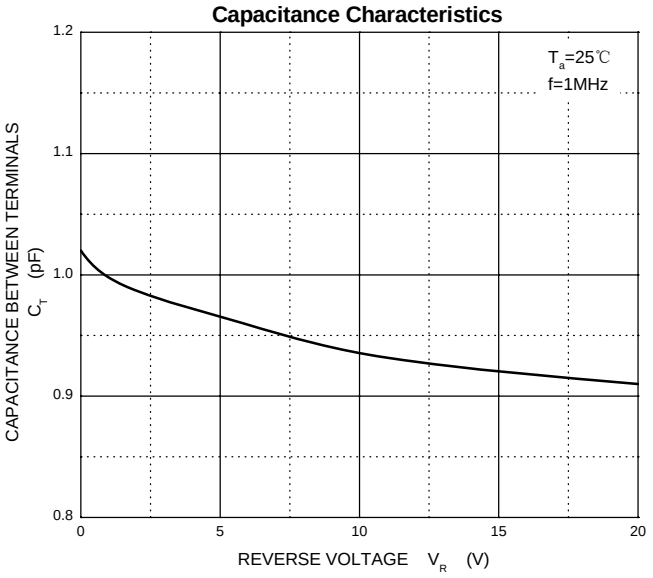
## ELECTRICAL CHARACTERISTICS($T_a$=25℃ unless otherwise specified)

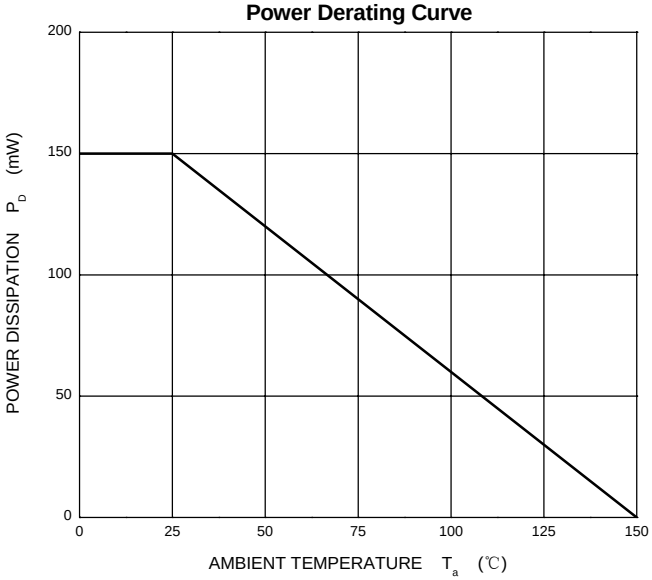
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Reverse voltage** | $V_{(BR)}$ | $I_R$=1μA | 75 | | | V |
| **Reverse current** | $I_R$ | $V_R$=75V | | | 1 | μA |
| | | $V_R$=20V | | | 25 | nA |
| **Forward voltage** | $V_F$ | $I_F$=1mA | | | 0.715 | V |
| | | $I_F$=10mA | | | 0.855 | V |
| | | $I_F$=50mA | | | 1 | V |
| | | $I_F$=150mA | | | 1.25 | V |
| **Total capacitance** | $C_{tot}$ | $V_R$=0V,f=1MHz | | | 2 | pF |
| **Reverse recovery time** | $t_{rr}$ | $I_F$= $I_R$ =10mA, $I_{rr}$=0.1*$I_R$,$R_L$=100Ω | | | 4 | ns |

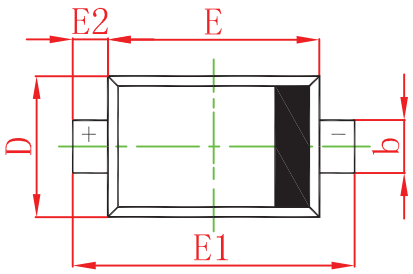
## Typical Characteristics

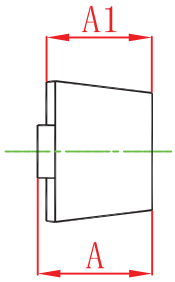


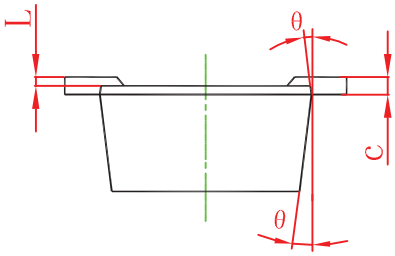



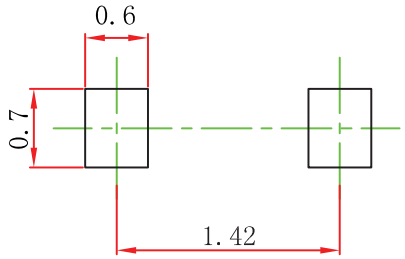



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 0.510 | 0.770 | 0.020 | 0.031 |
| A1 | 0.500 | 0.700 | 0.020 | 0.028 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.750 | 0.850 | 0.030 | 0.033 |
| E | 1.100 | 1.300 | 0.043 | 0.051 |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 |
| E2 | 0.200 REF | | 0.008 REF | |
| L | 0.010 | 0.070 | 0.001 | 0.003 |
| θ | 7° REF | | 7° REF | |

## SOD-523 Suggested Pad Layout




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