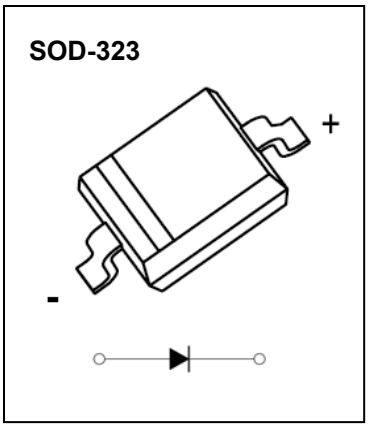
# SOD-323 Plastic-Encapsulate Diodes

## FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version




## MARKING:SD

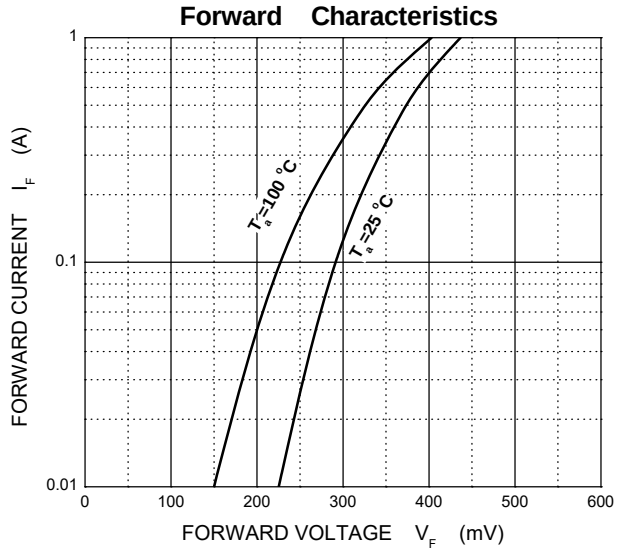

### Maximum Ratings @Ta=25℃

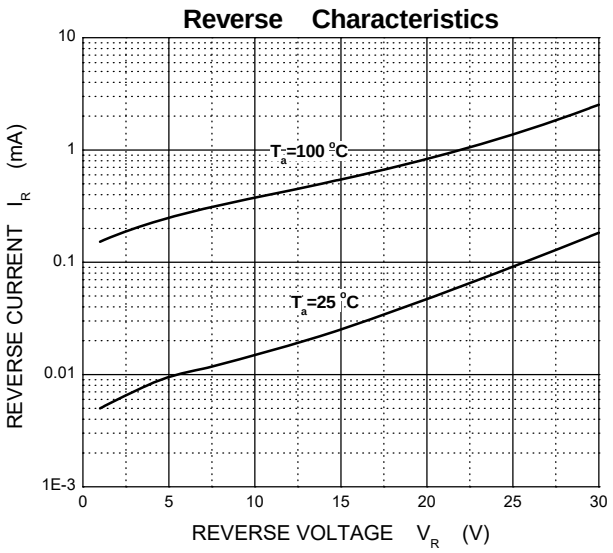
| Parameter | Symbo | Value | Unit |
|---|---|---|---|
| Peak repetitive peak reverse voltage<br>Working peak reverse voltage<br>DC blocking voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 20 | V |
| RMS reverse voltage reverse voltage (DC) | $V_{R(RMS)}$ | 14 | V |
| Average rectified output current | $I_o$ | 0.5 | A |
| Non-repetitive Peak Forward Surge Current @t=8.3ms | $I_{FSM}$ | 5.5 | A |
| Power dissipation | $P_D$ | 200 | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | 500 | ℃/W |
| Operating Junction Temperature Range | $T_j$ | -40 ~ +125 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 ~ +150 | ℃ |
| Voltage rate of change | dv/dt | 1000 | V/μs |

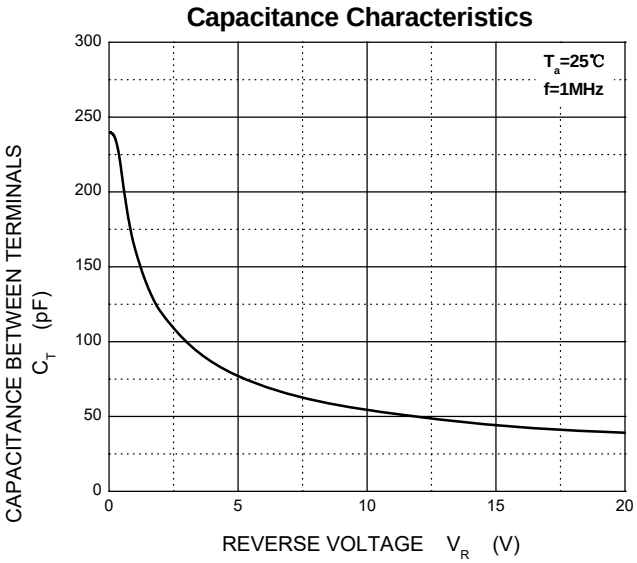
### Electrical Characteristics @Ta=25℃

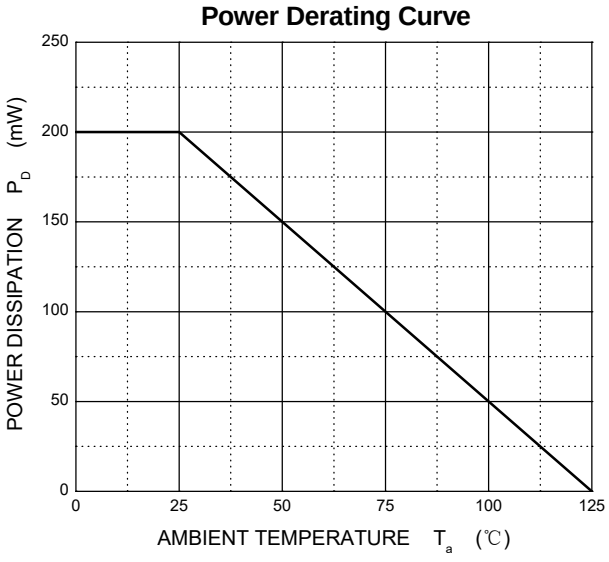
| | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R$=250uA | 20 | | | V |
| Reverse current | $I_R$ | $V_R$=10V | | | 75 | uA |
| | | $V_R$=20V | | | 250 | |
| Forward voltage | $V_F$ | $I_F$=0.1A | | | 0.33 | V |
| | | $I_F$=0.5A | | | 0.39 | |
| Capacitance between terminals | $C_T$ | $V_R$=1,f=1MHz | | 170 | | pF |

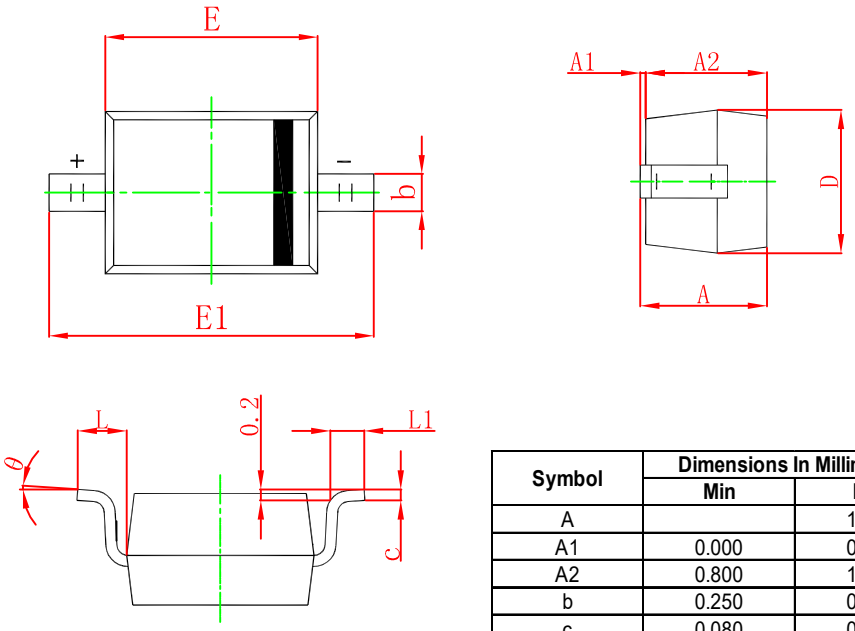
## Typical Characteristics



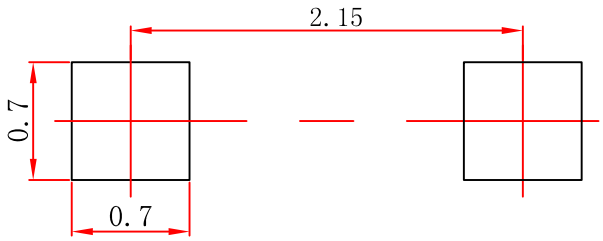






| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | | 1.100 | | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.800 | 1.000 | 0.031 | 0.039 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.200 | 1.400 | 0.047 | 0.055 |
| E | 1.600 | 1.800 | 0.063 | 0.071 |
| E1 | 2.500 | 2.750 | 0.098 | 0.108 |
| L | 0.475 REF | | 0.019 REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |

## **SOD-323** Suggested Pad Layout




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