

## Features

- Forward Continuous Current:  $I_{FM}=350\text{mA}$
- Power Dissipation of 400mw



## Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

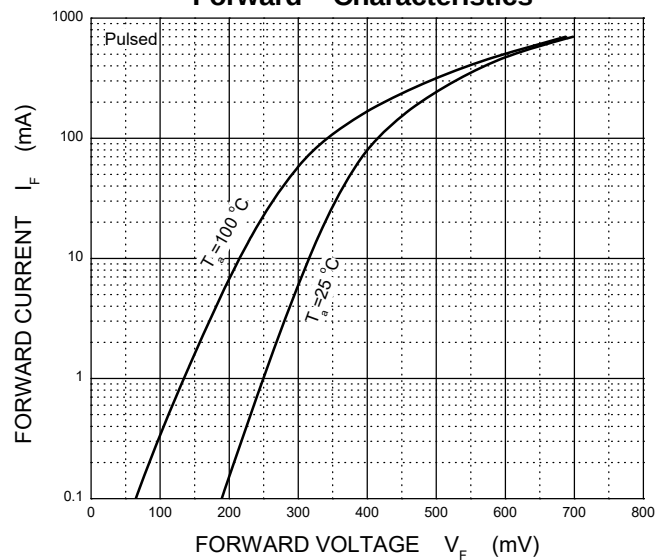
| Symbol          | Parameter                                          | Value     |           |           | Unit |
|-----------------|----------------------------------------------------|-----------|-----------|-----------|------|
|                 |                                                    | 1N5819W-L | 1N5818W-L | 1N5817W-L |      |
| $V_{RRM}$       | Peak Repetitive Reverse Voltage                    | 40        | 30        | 20        | V    |
| $V_{RWM}$       | Working Peak Reverse Voltage                       |           |           |           |      |
| $V_{R(RMS)}$    | RMS Reverse Voltage                                | 28        | 21        | 14        | V    |
| $I_{FM}$        | Forward Continuous Current                         | 350       |           |           | mA   |
| $I_{FSM}$       | Non-repetitive Peak Forward Surge Current@t= 8.3ms | 2         |           |           | A    |
| $P_D$           | Power Dissipation                                  | 400       |           |           | mW   |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient        | 250       |           |           | °C/W |
| $T_j$           | Junction Temperature                               | 125       |           |           | °C   |
| $T_{stg}$       | Storage Temperature                                | -55~+150  |           |           | °C   |

Electrical Characteristics (TA=25°C unless otherwise specified)

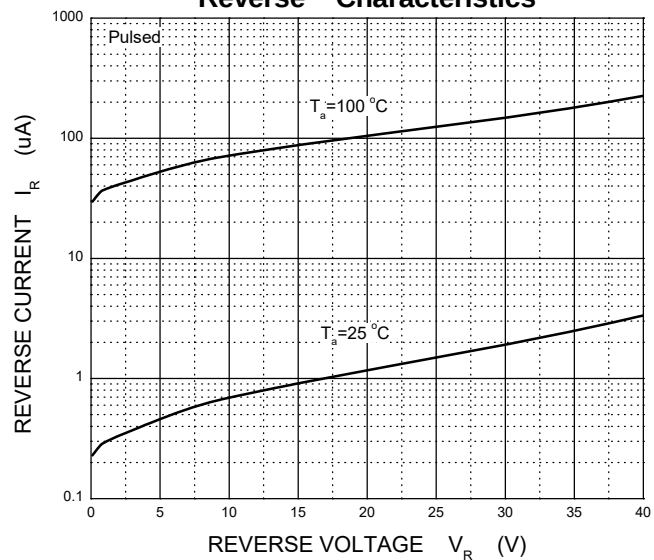
| Parameter             | Symbol     | Test conditions                                       | Min | Typ  | Max  | Unit    |
|-----------------------|------------|-------------------------------------------------------|-----|------|------|---------|
| Reverse voltage       | $V_{(BR)}$ | $I_R=100\mu A$                                        | 40  |      |      | V       |
| Reverse current       | $I_R$      | $V_R=30V$                                             |     |      | 5    | $\mu A$ |
|                       |            | $V_R=20V$                                             |     |      | 2    |         |
|                       |            | $V_R=10V$                                             |     |      | 1    |         |
| Forward voltage       | $V_F$      | $I_F=1mA$                                             |     | 0.27 |      | V       |
|                       |            | $I_F=5mA$                                             |     | 0.32 |      |         |
|                       |            | $I_F=20mA$                                            |     |      | 0.37 |         |
|                       |            | $I_F=200mA$                                           |     |      | 0.6  |         |
| Total capacitance     | $C_{tot}$  | $V_R=0V, f=1MHz$                                      |     | 50   |      | pF      |
| Reverse recovery time | $t_{rr}$   | $I_F=I_R=200mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$ |     | 10   |      | ns      |

## Typical Characteristics

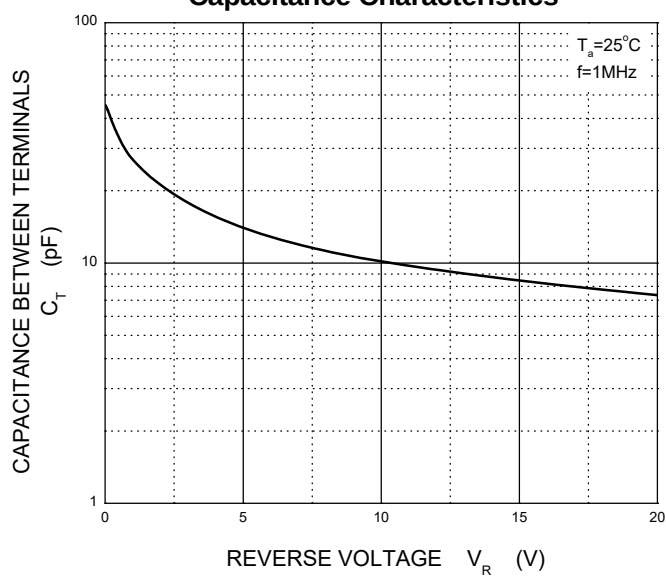
### Forward Characteristics



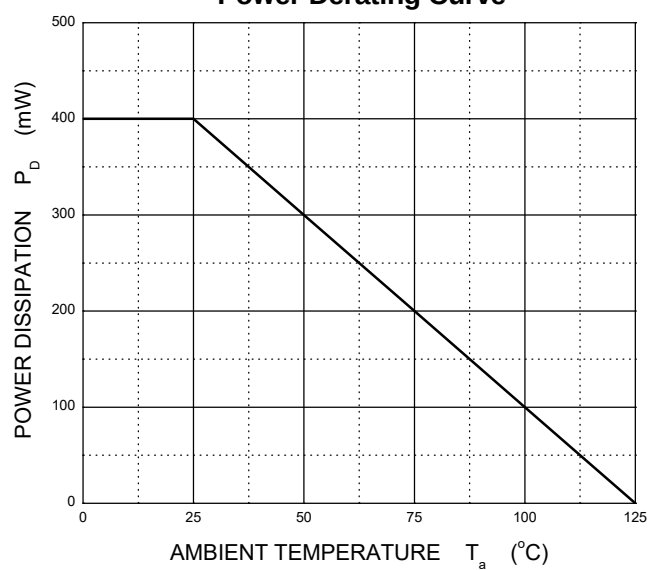
### Reverse Characteristics



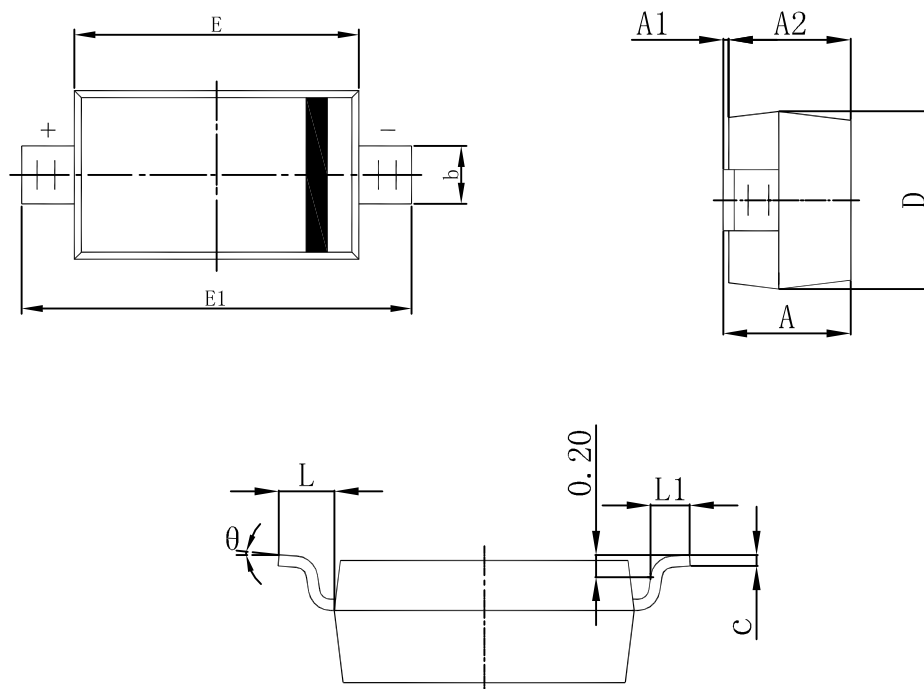
### Capacitance Characteristics



### Power Derating Curve



## SOD123 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°    |