



## Features

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

## Package Marking and Ordering Information

| Product ID | Pack    | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| SD103AW    | SOD-123 | S4      | 3000     |
| SD103BW    | SOD-123 | S5      | 3000     |
| SD103CW    | SOD-123 | S6      | 3000     |



SOD-123



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Symbol          | Parameter                                          | Value    |         |         | Unit |
|-----------------|----------------------------------------------------|----------|---------|---------|------|
|                 |                                                    | SD103AW  | SD103BW | SD103CW |      |
| $V_{RRM}$       | 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   |

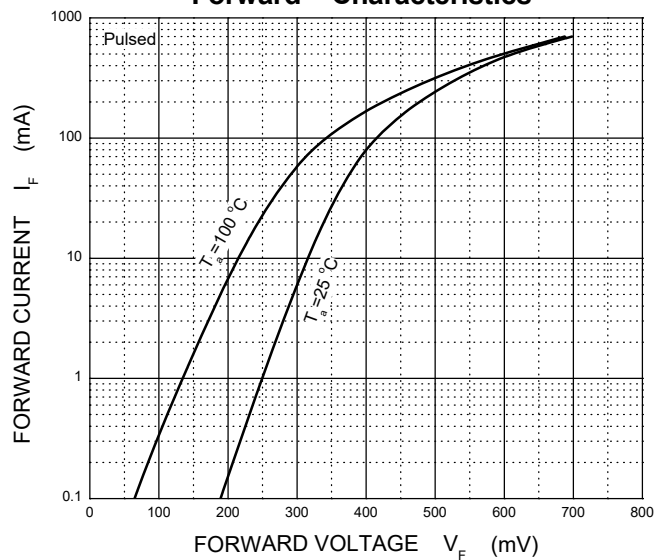
## Electrical Characteristics (Ta=25°C unless otherwise specified)

| Parameter             | Symbol     | Test conditions                                       | Min | Typ | Max  | Unit    |
|-----------------------|------------|-------------------------------------------------------|-----|-----|------|---------|
| Reverse voltage       | $V_{(BR)}$ | $I_R=100\mu A$ SD103AW                                | 40  |     |      | V       |
|                       |            | SD103BW                                               | 30  |     |      |         |
|                       |            | SD103CW                                               | 20  |     |      |         |
| Reverse current       | $I_R$      | $V_R=30V$ SD103AW                                     |     |     | 5    | $\mu A$ |
|                       |            | $V_R=20V$ SD103BW                                     |     |     |      |         |
|                       |            | $V_R=10V$ SD103CW                                     |     |     |      |         |
| Forward voltage       | $V_F$      | $I_F=20mA$                                            |     |     | 0.37 | V       |
|                       |            | $I_F=200mA$                                           |     |     | 0.6  |         |
| Total capacitance     | $C_{tot}$  | $V_R=0$ $V, f=1MHz$                                   |     | 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      |

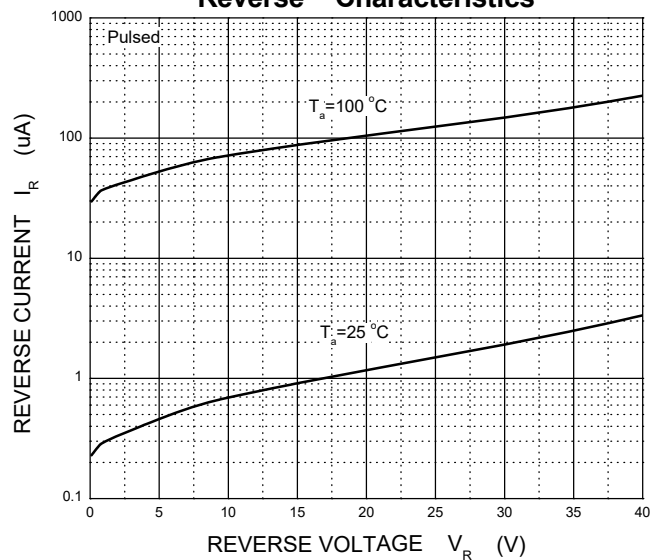


## Typical Characteristics

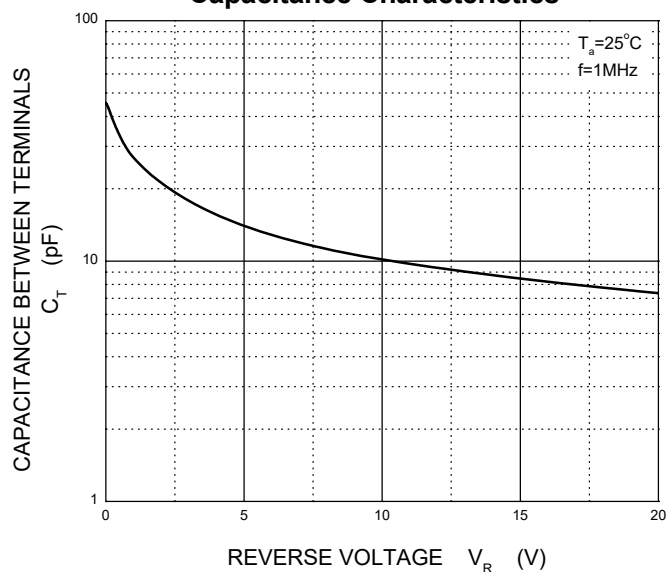
### Forward Characteristics



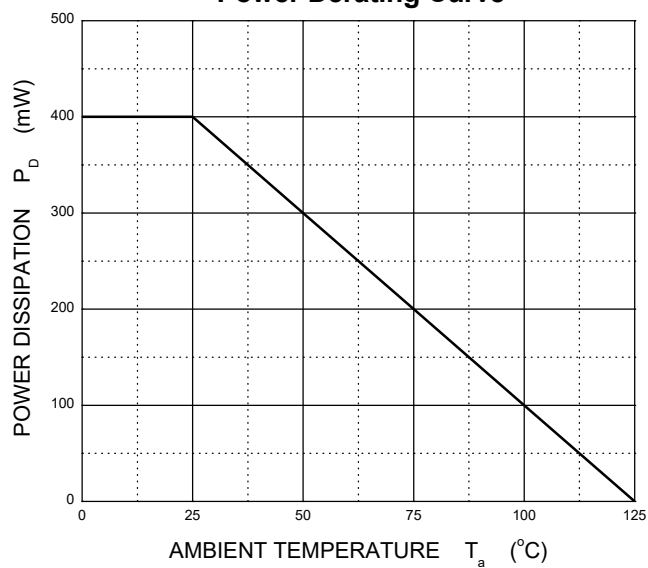
### Reverse Characteristics



### Capacitance Characteristics

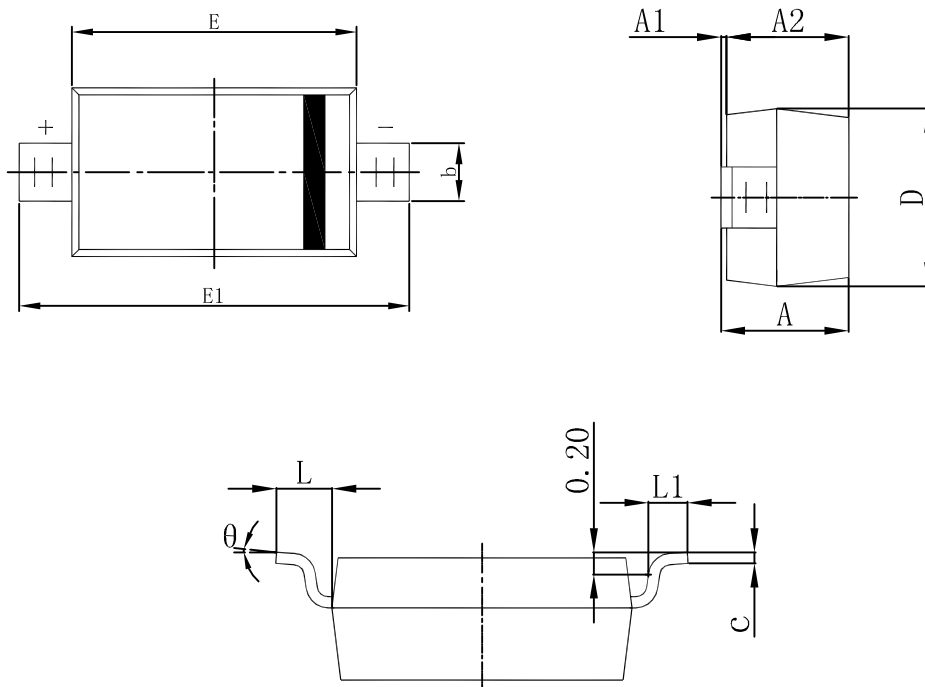


### Power Derating Curve





## 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°    |



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