## Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection


**SOD-123**

## Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|---|---|---|---|
| SS1060_R1_00001 | SOD-123 | SM | 3000 |

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

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_R$ | DC Blocking Voltage | 60 | V |
| $I_O$ | Forward Current | 1 | A |
| $I_{FSM}$ | Non-repetitive Peak Forward Surge Current @t=8.3ms | 20 | |
| $P_D$ | Power Dissipation | 300 | mW |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient | 225 | °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 current | $I_R$ | $V_R$=20V | | | 100 | μA |
| | | $V_R$=60V | | | 300 | μA |
| Forward voltage | $V_{F(1)}$ | $I_F$=500mA | | | 0.60 | V |
| | $V_{F(2)}$* | $I_F$=1000mA | | | 0.72 | |

* Pulse test

## Typical Characteristics

Fig.1 Forward Current Derating Curve

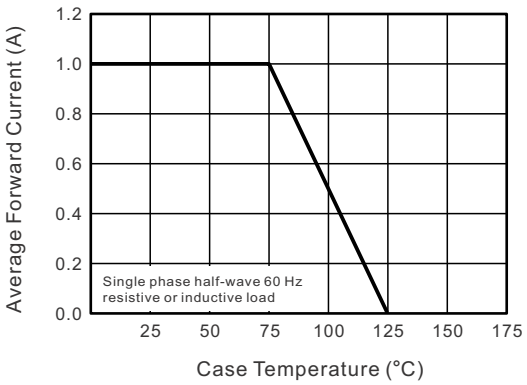



Fig.2 Typical Reverse Characteristics

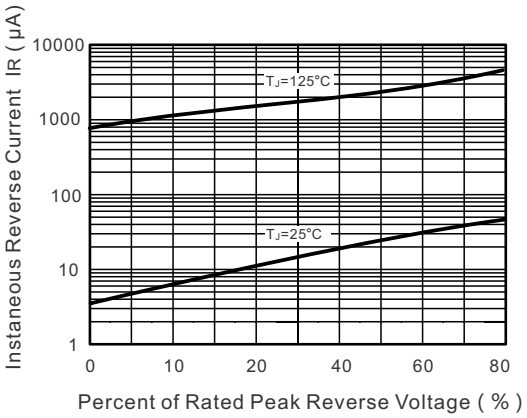



Fig.3 TYPICAL FORWARD VOLTAGE

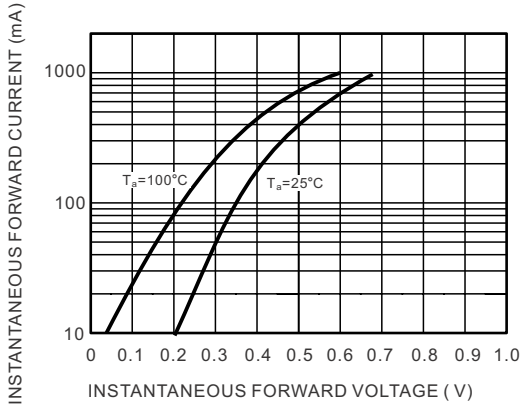



Fig.4 Typical Junction Capacitance

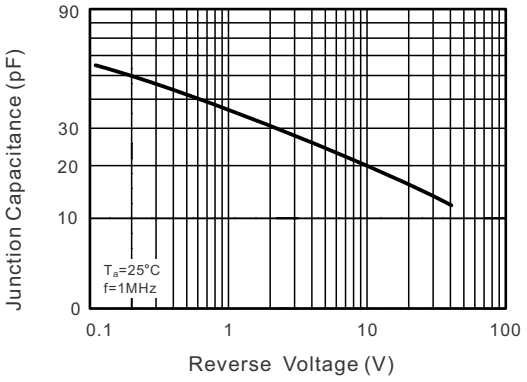
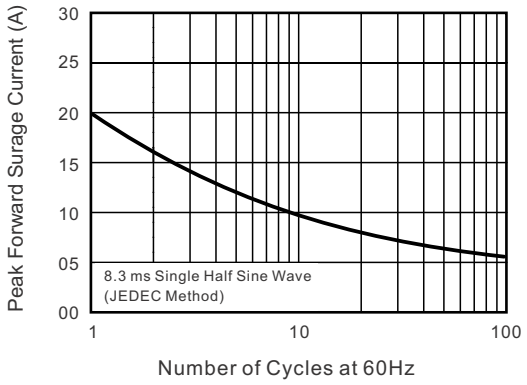
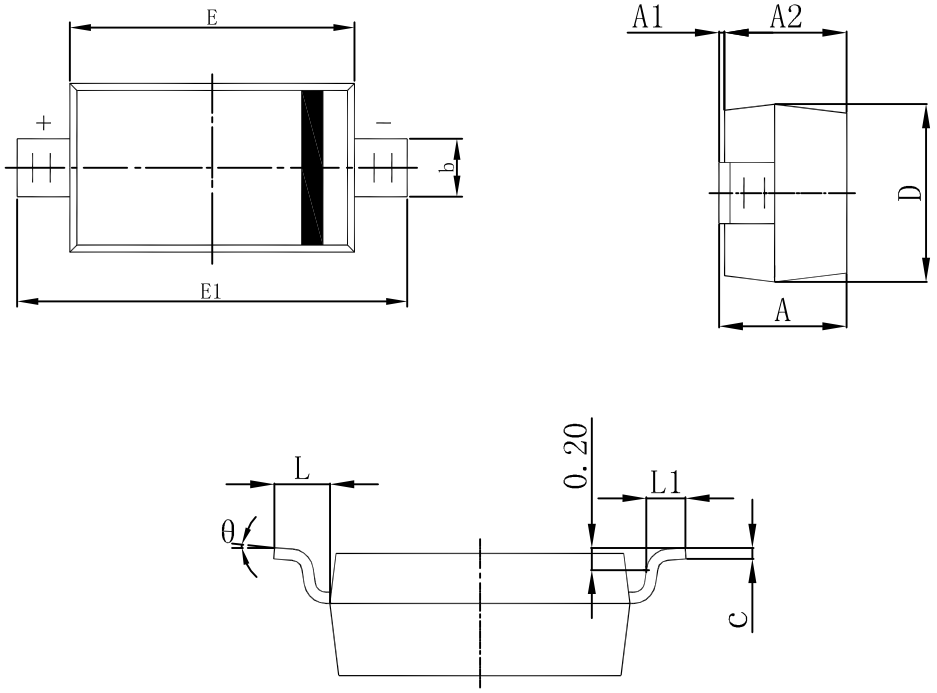



Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



## Package Outline Dimensions

SOD-123




| 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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