

FEATURES

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



SOD-123

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| 1N5819W | SOD-123 | S4 | 3000 |



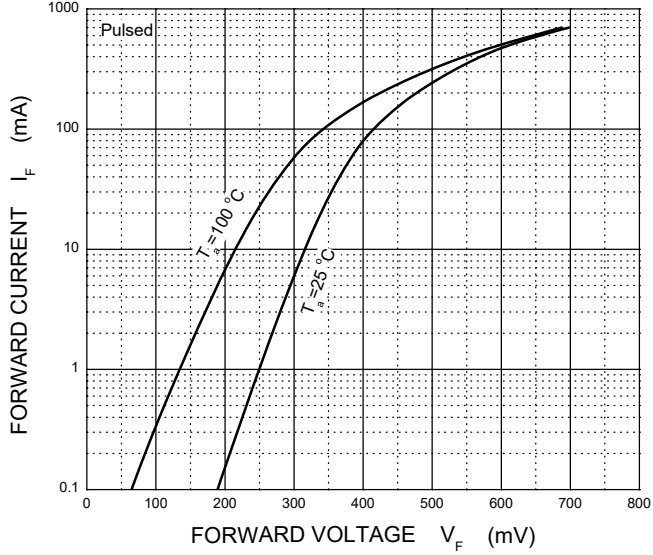
MAXIMUM RATINGS (Ta=25 unless otherwise noted)

| Symbol | Parameter | Value | | | Unit |
|-----------------|---|----------|----|----|------|
| | | | | | |
| 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 |

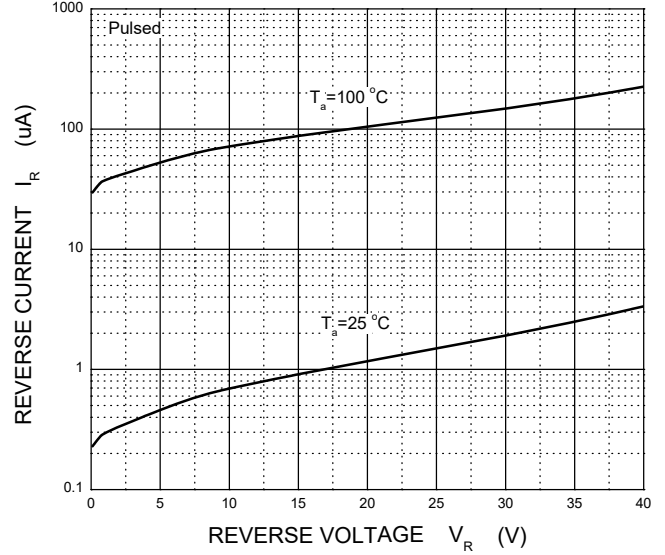
ELECTRICAL CHARACTERISTICS (Ta=25 unless otherwise specified)

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

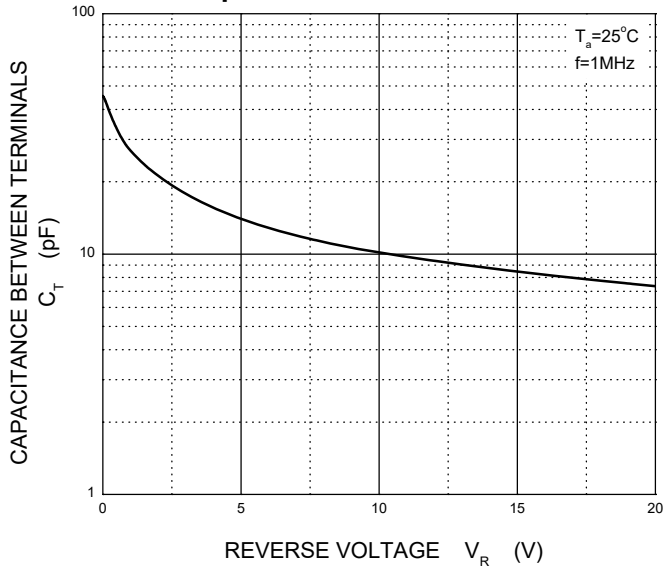
Forward Characteristics



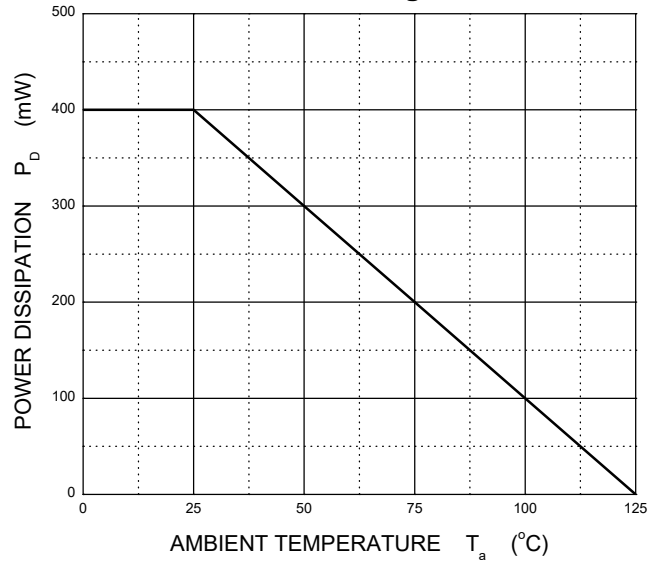
Reverse Characteristics



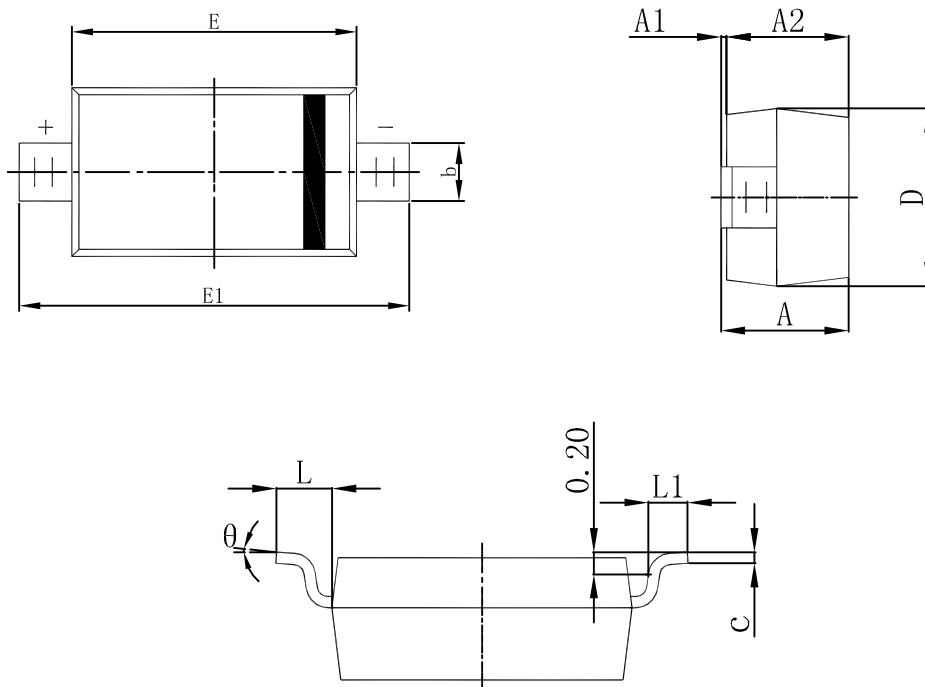
Capacitance Characteristics



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° |