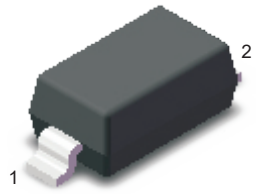
# Schottky Barrier Diodes

## Features

- High current capability
- Low power loss, high efficiency
- Guarding for overvoltage protection

**SOD-123**




1.Cathode  2.Anode

**Marking Code** :
1N5817W: SJ
1N5817W: SK
1N5817W: SL

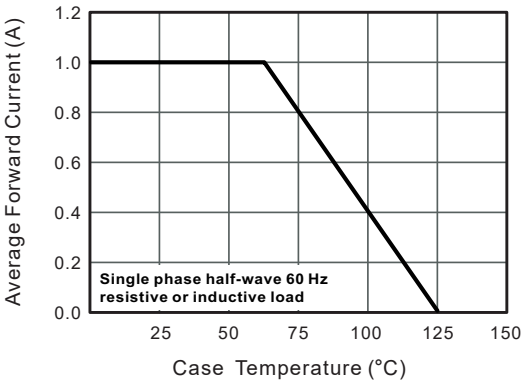
## Mechanical Data

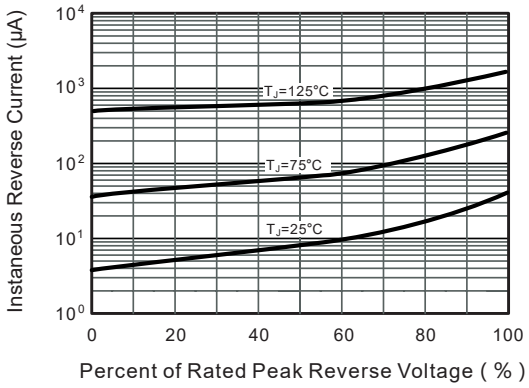
- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

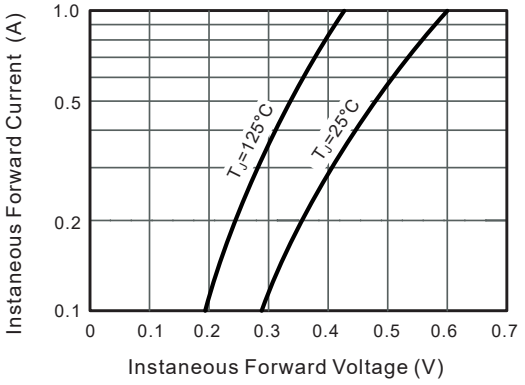
## Maximum Ratings & Electrical Characteristics ($T_A$=25℃ unless otherwise noted.)

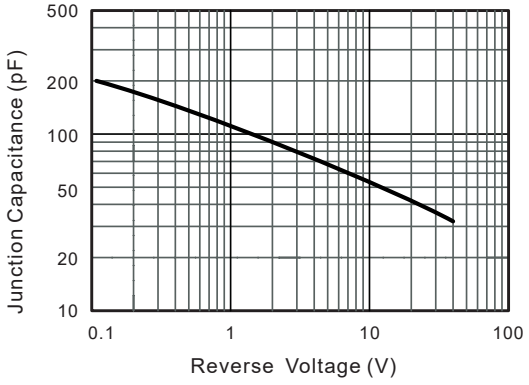
| Parameter | Symbols | 1N5817W | 1N5818W | 1N5819W | Units |
|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 20 | 30 | 40 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 1.0 | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 25 | | | A |
| Maximum Instantaneous Forward Voltage<br>at 1 A<br>at 3 A | $V_F$ | <br>0.45<br>0.75 | <br>0.55<br>0.875 | <br>0.6<br>0.9 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>at $T_A$ = 25°C<br>at $T_A$ = 100°C | $I_R$ | <br>1<br>10 | | | mA |
| Typical Junction Capacitance | $C_j$ | 110 | | | pF |
| Operating Junction Temperature | $T_J$ | 125 | | | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to +125 | | | °C |

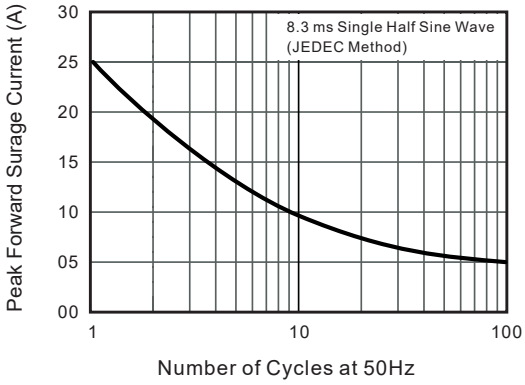
## Typical Characteristics



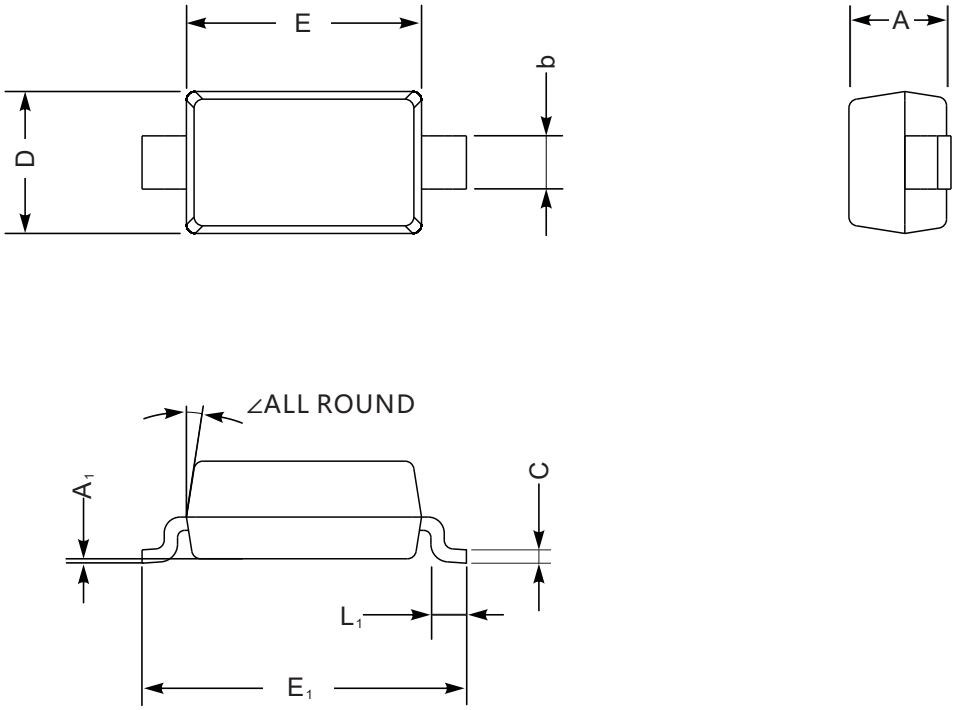



## SOD-123 Package Outline

Dimensions in mm




SOD-123 mechanical data

| UNIT | | A | C | D | E | $E_1$ | $L_1$ | b | $A_1$ | ∠ |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | max | 1.3 | 0.22 | 1.8 | 2.8 | 3.9 | 0.45 | 0.7 | 0.2 | 9° |
| | min | 0.9 | 0.09 | 1.5 | 2.5 | 3.6 | 0.25 | 0.5 | — | |
| mil | max | 51 | 8.7 | 71 | 110 | 154 | 18 | 28 | 8 | |
| | min | 35 | 3.5 | 59 | 98 | 142 | 10 | 20 | — | |