

## SCHOTTKY BARRIER DIODE

### Features

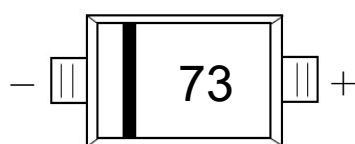
- Small Current Rectification
- Low Voltage



SOD-123 top view



Schematic diagram



Marking and pin assignment



Pb-Free



RoHS



Halogen-Free

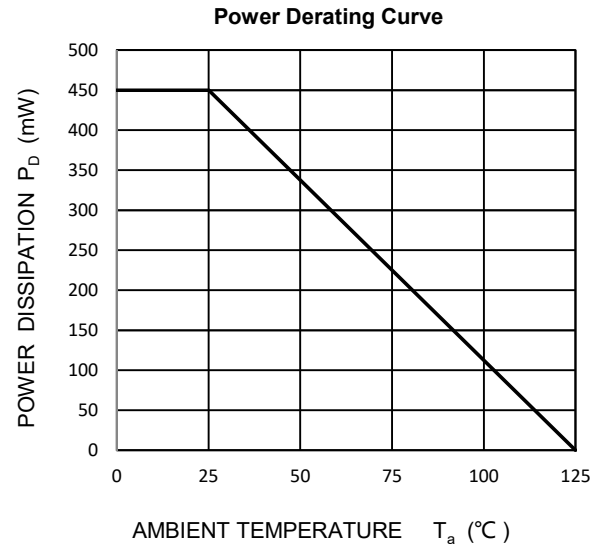
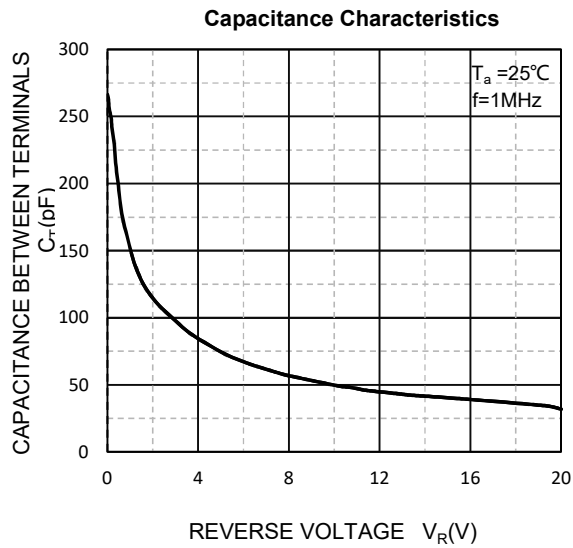
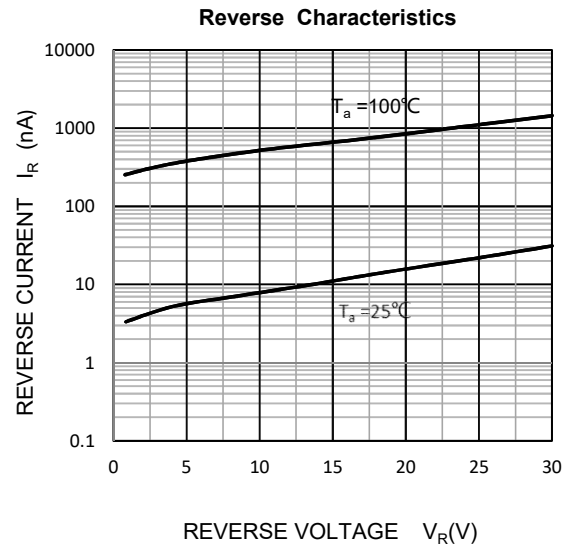
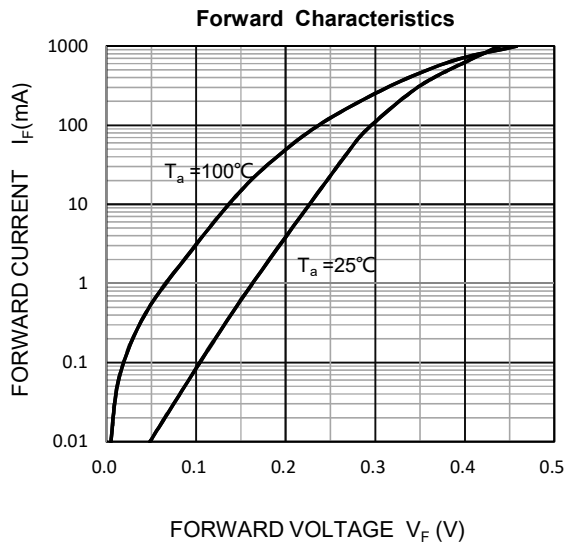
### MAXIMUM RATINGS ( Ta=25 $\text{\textcircled{F}}$ unless otherwise noted )

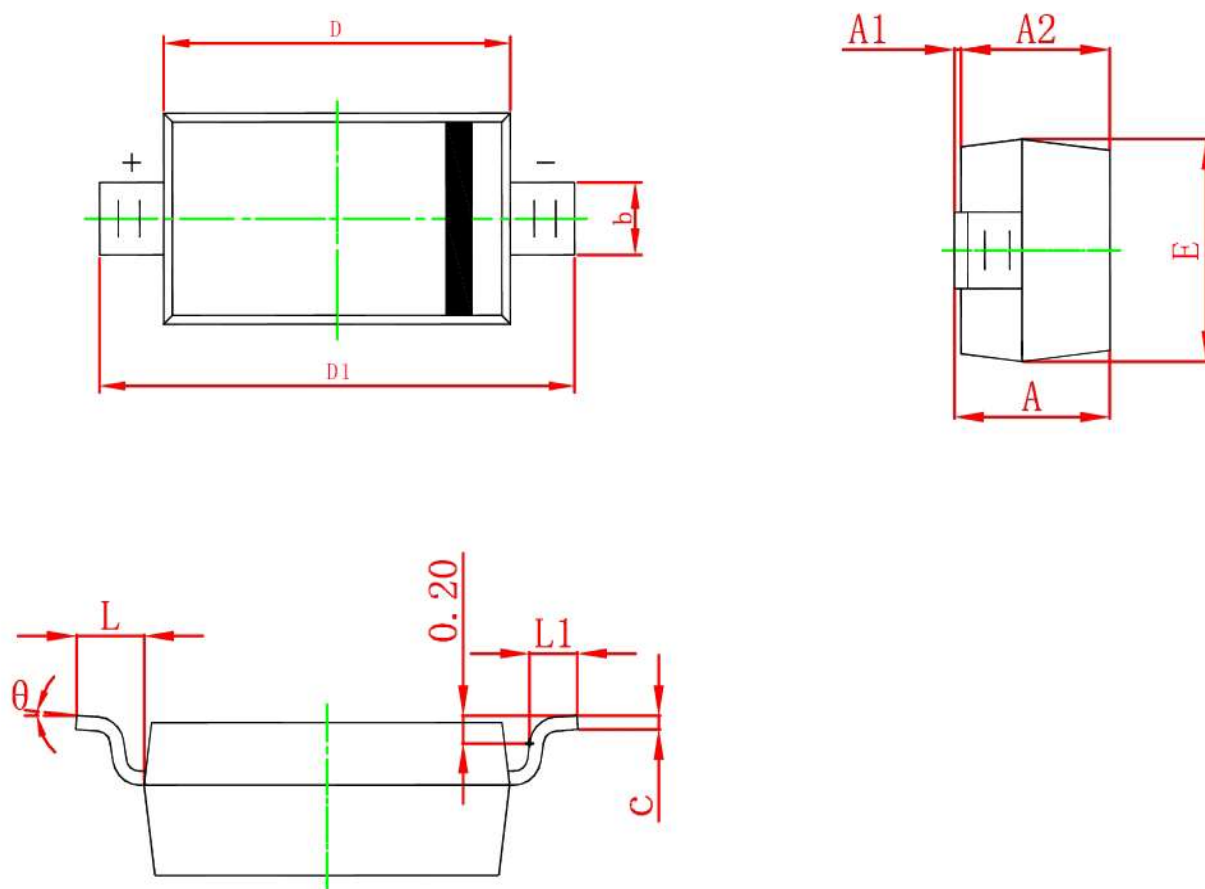
| Symbol          | Parameter  | Value      | Unit                        |
|-----------------|--|------------|-----------------------------|
| $V_R$           | DC Blocking Voltage                                | 30         | V                           |
| $I_O$           | Forward Current                                    | 1          | A                           |
| $I_{FSM}$       | Non-repetitive Peak Forward Surge Current@t= 8.3ms | 15         | A                           |
| $P_D$           | Power Dissipation                                  | 450        | mW                          |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient        | 222        | $^{\circ}\text{C}/\text{W}$ |
| $T_J$           | Operating Junction Temperature Range               | -40 ~ +125 | $^{\circ}\text{C}$          |
| $T_{stg}$       | Storage Temperature Range                          | -55 ~ +150 | $^{\circ}\text{C}$          |

### ELECTRICAL CHARACTERISTICS(Ta=25 $\text{\textcircled{F}}$ unless otherwise specified)

| Symbol      | Parameter       | Condition           | Min | Typ | Max  | Unit          |
|-------------|-----------------|---------------------|-----|-----|------|---------------|
| $I_R$       | Reverse current | $V_R=15\text{V}$    | --  | --  | 20   | $\mu\text{A}$ |
|             |                 | $V_R=30\text{V}$    | --  | --  | 50   | $\mu\text{A}$ |
| $V_{F(1)}$  | Forward voltage | $I_F=500\text{mA}$  | --  | --  | 0.46 | V             |
| $V_{F(2)*}$ |                 | $I_F=1000\text{mA}$ | --  | --  | 0.48 | V             |

## Typical Characteristics



**SOD-123 Package information**


| Symbol   | Dimensions in Millimeters(mm) |       | 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        | 2.600                         | 2.800 | 0.102                | 0.110 |
| D1       | 3.550                         | 3.850 | 0.140                | 0.152 |
| E        | 1.500                         | 1.700 | 0.059                | 0.067 |
| L        | 0.500 REF                     |       | 0.020 REF            |       |
| L1       | 0.250                         | 0.450 | 0.010                | 0.018 |
| $\theta$ | 0°                            | 8°    | 0°                   | 8°    |